

# **PERSONNEL LICENSING MANUAL**

# Personnel Licensing Manual

## **AUTHORITY**


This manual prescribes the Maldives rules relating to the licensing of Flight Crew, Flight Dispatchers, Aircraft Engineers, and Air Traffic Controllers. The standards prescribed in ICAO Annex 1 to the Chicago Convention are used throughout.

It is written under the general authority of division 2 of the Civil Aviation Regulations, and its provisions must be complied with.

## **POLICY**

The aviation activity in the Maldives is too small to support or justify a stand-alone licensing system, and the CAD relies on the licensing systems of larger states for much of the work involved.

The CAD provides a quality system for auditing qualifications obtained in other states, and issues validations and licences based upon them. It also adds ratings to licences once they have been issued.



Aminath Solih  
**DIRECTOR GENERAL**

**LIST OF EFFECTIVE PAGES**

Page	Issue	Revision No.	Date	Page	Issue	Revision No.	Date
1-1	2	Original	1 May 07	6-15	2	Original	1 May 07
1-2	2	Original	1 May 07	6-16	2	Original	1 May 07
1-3	2	Original	1 May 07	6-17	2	Original	1 May 07
1-4	2	Original	1 May 07	6-18	2	Original	1 May 07
1-5	2	Original	1 May 07	6-19	2	Original	1 May 07
1-6	2	Original	1 May 07	AP-A1	2	Original	1 May 07
1-7	2	Original	1 May 07	AP-A2	2	Original	1 May 07
1-8	2	Original	1 May 07	AP-A3	2	Original	1 May 07
1-9	2	Original	1 May 07	AP-A4	2	Original	1 May 07
1-10	2	1	10 April 08	AP-A5	2	Original	1 May 07
1-11	2	1	10 April 08	AP-A6	2	Original	1 May 07
2-1	2	Original	1 May 07	AP-A7	2	Original	1 May 07
2-2	2	Original	1 May 07	AP-A8	2	Original	1 May 07
2-3	2	Original	1 May 07	AP-A9	2	Original	1 May 07
2-4	2	Original	1 May 07				
2-5	2	Original	1 May 07				
2-6	2	Original	1 May 07				
2-7	2	Original	1 May 07				
2-8	2	Original	1 May 07				
2-9	2	Original	1 May 07				
2-10	2	Original	1 May 07				
2-11	2	Original	1 May 07				
2-12	2	Original	1 May 07				
2-13	2	Original	1 May 07				
2-14	2	Original	1 May 07				
2-15	2	Original	1 May 07				
2-16	2	Original	1 May 07				
3-1	2	Original	1 May 07				
3-2	2	Original	1 May 07				
3-3	2	Original	1 May 07				
3-4	2	Original	1 May 07				
4-1	2	1	24 March 09				
4-2	2	Original	1 May 07				
4-3	2	Original	1 May 07				
4-4	2	Original	1 May 07				
4-5	2	Original	1 May 07				
4-6	2	1	6 August 09				
4-7	2	Original	1 May 07				
5-1	2	Original	1 May 07				
6-2	2	Original	1 May 07				
6-3	2	Original	1 May 07				
6-4	2	Original	1 May 07				
6-5	2	Original	1 May 07				
6-6	2	Original	1 May 07				
6-7	2	Original	1 May 07				
6-8	2	Original	1 May 07				
6-9	2	Original	1 May 07				
6-10	2	Original	1 May 07				
6-11	2	Original	1 May 07				
6-12	2	Original	1 May 07				
6-13	2	Original	1 May 07				
6-14	2	Original	1 May 07				

## CHAPTER 1 DEFINITIONS AND GENERAL RULES CONCERNING LICENCES

### 1.1 Definitions

When the following terms are used in this manual for Personnel Licensing, they have the following meanings:

***Accredited medical conclusion.***

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

***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 judgement 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 a Contracting State, in accordance with the requirements of Annex 6, Part I, Chapter 8 — Aeroplane Maintenance, to perform maintenance of aircraft or parts thereof and operating under supervision approved by that State.

*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 a Contracting State that, in the case of flight crew members, is conducted within an approved training organization.

***Approved training organization.***

An organization approved by a Contracting State in accordance with the requirements of Annex 1, 1.2.8.2 and Appendix 2 to perform flight crew training and operating under the supervision of that State.

***Balloon.***

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

*Note.* For the purposes of this manual, 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 the flight crew that leads to deviations from organizational or flight crew intentions or expectations.

***Error management.***

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

*Note.* See Attachment C to Chapter 3 of the Procedures for Air Navigation Services — Training (PANS-TRG, Doc 9868) for a description of undesired aircraft states.

***Flight crew member.***

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

***Flight plan.***

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

***Flight procedures trainer.***

See Flight simulation training device.

***Flight simulation training device.***

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

*A 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 practising, on the ground, simulated instrument flight in a flight simulation training device approved by the Licensing Authority.

***Instrument time.***

Instrument flight time or instrument ground time.

***Licensing Authority.***

Civil Aviation Department is responsible for the licensing of personnel under this manual.

*Note.* In the provisions of this manual, CAD is deemed to have the following responsibilities:

- 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 devices 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 Chapter 6, ***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 CAD that the licence holder meets specific requirements of medical fitness.

***Medical assessor.***

A physician qualified and experienced in the practice of aviation medicine who evaluates medical reports submitted to CAD by medical examiners.

***Medical examiner.***

A physician with training in aviation medicine and practical knowledge and experience of the aviation environment, who is designated by CAD 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 may be prescribed by the appropriate authority.

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

***Performance criteria.***

Simple, evaluative statements on the required outcome of the competency element and a description of the criteria used to judge whether the required level of performance has been achieved.

***Pilot (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 the Licensing Authority.

***Powered-lift.***

A heavier-than-air aircraft capable of vertical take-off, vertical landing, and low-speed flight, which depends principally on engine-driven lift devices or engine thrust for the lift during these flight regimes and on nonrotating 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 a Contracting State, as an alternative to issuing its own licence, in accepting a licence issued by any other Contracting State as the equivalent of its own licence.

***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 ICAO Annex 6.

***Significant.***

In the context of the medical provisions in Chapter 6, ***significant*** means to a degree or of a nature that is likely to jeopardize flight safety.

***Solo flight time.***

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

***Threat.***

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

***Threat management.***

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

*Note.* See Attachment C to Chapter 3 of the Procedures for Air Navigation Services — Training (PANS-TRG, ICAO Doc 9868) for a description of undesired aircraft states.



1.2 This Manual specifies the experience, flight instruction, and skill requirements for the issue of

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 crew member

A person shall not act as a flight crew member of an aircraft unless a valid licence is held showing compliance with the specifications of this manual and appropriate to the duties to be performed by that person. The licence shall have been issued by the State of Registry of that aircraft or by CAD and rendered valid by the State of Registry of that aircraft.

*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

1.2.2.1 When a CAD renders valid a licence issued by an ICAO Contracting State, as an alternative to the issuance of its own licence, it will establish validity by issuing a “Validity” certificate to be carried with the former licence accepting it as the equivalent of the latter. When a CAD limits the authorization to specific privileges, the authorization will specify the privileges of the licence which are to be accepted as its equivalent. The validity of the “Validity” certificate will not extend beyond the period of validity of the licence. The “Validity” certificate will cease 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, CAD will confirm the validity of the other Contracting State’s licence before issuing the authorization.

1.2.2.3 **Reserved**

1.2.3 Privileges of the holder of a licence

A holder of a licence shall not exercise privileges other than those granted by that licence.

1.2.4 Medical fitness

**Note1.** Guidance material is published in the Manual of Civil Aviation Medicine (Doc 8984).

**Note2.** 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 6.2, 6.3, 6.4 and 6.5. To provide the necessary evidence to satisfy the requirements of 1.2.4.1, the Licensing Authority issues the licence holder with the appropriate Medical Assessment, Class 1, Class 2 or Class 3. This can be done in several ways such as a suitable

*bly titled separate certificate, a statement on the licence, a national regulation stipulating that the Medical Assessment is an integral part of the licence, etc.*

1.2.4.1 An applicant for a licence shall, when applicable hold a Medical Assessment issued in accordance with the provisions of Chapter 6.

1.2.4.2 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.

1.2.4.2.1 The period of validity of a Medical Assessment may be extended, at the discretion of Director, up to 45 days.

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

1.2.4.3 Except as provided in 1.2.5.2.4, 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.

1.2.4.4 Medical examiners, qualified and licensed in the practice of medicine, are designated to conduct medical examinations of fitness of applicants for the issue or renewal of the licences or ratings specified in Chapters 2 and 3, and of the appropriate licences specified in Chapter 4.

1.2.4.4.1 Medical examiners shall have received training in aviation medicine and shall receive refresher training at regular intervals. Before designation, medical examiners shall demonstrate adequate competency in aviation medicine.

1.2.4.4.2 Medical examiners shall have practical knowledge and experience of the conditions in which the holders of licences and ratings carry out their duties.

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

1.2.4.5 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 result 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.

1.2.4.5.1 Any false declaration to a medical examiner made by an applicant for a licence or rating shall be reported to the CAD for such action as may be considered appropriate.

1.2.4.6 Having completed the medical examination of the applicant in accordance with Chapter 6, the medical examiner shall coordinate the results of the examination and submit a signed report, or equivalent, to CAD, detailing the results of the examination and evaluating the findings with regard to medical fitness.

1.2.4.6.1 If the medical report is submitted to the CAD in electronic format, adequate identification of the examiner shall be established.

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

1.2.4.7 CAD will use the services of medical assessor(s) to evaluate reports submitted to CAD by medical examiners.

1.2.4.7.1 The medical examiner is required to submit sufficient medical information to CAD to audit Medical Assessments.

*Note.* The purpose of such auditing is to ensure that medical examiners meet applicable standards for good practice.

1.2.4.8 If the medical Standards prescribed in Chapter 6 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.

1.2.4.9 Medical confidentiality shall be respected at all times.

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

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

1.2.5 Validity of licences

1.2.5.1 The holder of a Maldivian licence shall not exercise the privileges granted by that licence, or by related ratings, unless the holder maintains competency and meets the requirements for recent experience as established by CAD.

1.2.5.1.1 **Reserved.**

1.2.5.1.2 CAD, having issued a licence, will ensure that other Contracting States are enabled to be satisfied as to the validity of the licence.

*Note1.* The maintenance of competency of flight crew members, engaged in commercial air transport operations, may be satisfactorily established by demonstration of skill during proficiency flight checks completed in accordance with Annex 6.

*Note2.* Maintenance of competency may be satisfactorily recorded in the operator's records, or in the flight crew member's personal log book or licence.

*Note3.* Flight crew members may, to the extent deemed feasible by the State of Registry, demonstrate their continuing competency in flight simulation training devices approved by that State.

*Note4.* See the Manual of Criteria for the Qualification of Flight Simulators (Doc 9625).

*Note5.* 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 1.2.4.5 and 1.2.4.6 shall be valid from the date of the medical examination and validity period shall start to count from the 1<sup>st</sup> day of the following month on which examination was done until 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 — aeroplane, 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.

**Note1.** *The periods of validity listed above may be extended by up to 45 days in accordance with 1.2.4.2.1.*

**Note2.** *When calculated in accordance with 1.2.5.2 and its sub-paragraphs, the period of validity will, 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 and 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 40th 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 60th 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 40th 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 50th 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.* The prescribed re-examination of a licence holder operating in an area distant from designated medical examination facilities may be deferred at the discretion of the Director, provided that such deferment is made as an exception and will 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 favourable medical report is obtained after examination by a designated medical examiner of the area concerned, or, in cases where such a designated medical examiner is not available, by a physician legally qualified to practice medicine in that area. A report of the medical examination shall be sent to the Licensing Authority 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 1.2.4.4 by CAD in which the applicant is temporarily located. A report of the medical examination shall be sent to CAD.

1.2.6 Decrease in medical fitness

1.2.6.1 Holders of licences provided for in this Manual 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 Licence holders shall inform CAD of confirmed pregnancy or any decrease in medical fitness of a duration of more than 20 days or which requires continued treatment with prescribed medication or which has required hospital treatment.

1.2.6.1.2 No Licence holder shall 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 prevent the issue or renewal of their Medical Assessment.

1.2.7 Use of psychoactive substances

1.2.7.1 Holders of licences provided for in this Manual 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 Manual shall not engage in any problematic use of substances.

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

*Note.* 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) and Air Safety Circular GEN 5.

1.2.8 Approved training and approved training organization

*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 these regulations, 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 approval of an organization providing training for flight crew by CAD will be dependent upon the applicant demonstrating compliance with the requirements of Appendix 2.

*Note.* Guidance on approval of a flight crew training organization can be found in the Manual on the Approval of Flight Crew Training Organizations (Doc 9841)

1.2.9 Language proficiency

1.2.9.1 Aeroplane, airship, helicopter and powered-lift pilots and those flight navigators who are required to use the radio telephone aboard an aircraft shall demonstrate the ability to speak and understand English language which will be used for radiotelephony communications.

*Note.* Pursuant to Article 42 of the Convention on International Civil Aviation, paragraph 1.2.9.1 does not apply to personnel whose licences are originally issued prior to 5 March 2004 but, in any case, does apply to personnel whose licences remain valid after 5 March 2008.

1.2.9.2 Air traffic controllers and aeronautical station operators shall demonstrate the ability to speak and understand English language which will be used for radiotelephony communications.

1.2.9.3 Flight engineers, and glider and free balloon pilots shall have the ability to speak and understand English language which will be used for radiotelephony communications.

1.2.9.4 As of 5 March 2008, aeroplane, airship, helicopter and powered-lift pilots, air traffic controllers and aeronautical station operators shall demonstrate the ability to speak and understand English language

which will be used for radiotelephony communications to the level specified in the language proficiency requirements in Appendix 1.

1.2.9.5 Reserved

1.2.9.6 As of 5 March 2008, English 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.

1.2.9.7 English language proficiency of aeroplane, airship, helicopter 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 English language proficiency at the Operational Level (Level 4) should be evaluated at least once every three years; and
- b) those demonstrating English language proficiency at the Extended Level (Level 5) should be evaluated at least once every six years.

**Note1.** *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.*

**Note2.** *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.*

---

## CHAPTER 2 LICENCES AND RATINGS FOR PILOTS

### 2.1 General rules concerning pilot licences and ratings

#### 2.1.1 General licensing specifications

2.1.1.1 A person shall not act either as pilot-in-command or as co-pilot of an aircraft in any of the following categories unless that person is the holder of a pilot licence issued in accordance with the provisions of this Chapter:

- aeroplane
- airship of a volume of more than 4 600 cubic metres
- free balloon
- glider
- helicopter
- powered-lift

2.1.1.2 The category of aircraft shall be included in the title of the licence itself, or endorsed as a category rating on the licence.

2.1.1.2.1 When the holder of a pilot licence seeks a licence for an additional category of aircraft, CAD will either:

- a) issue the licence holder with an additional pilot licence for that category of aircraft; or
- b) endorse the original licence with the new category rating, subject to the conditions of 2.1.2.

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

2.1.1.3 An applicant shall, before being issued with any pilot licence or rating, meet such requirements in respect of age, knowledge, experience, flight instruction, skill and medical fitness, as are specified for that licence or rating.

2.1.1.3.1 An applicant for any pilot licence or rating shall demonstrate, in a manner acceptable to CAD, such requirements for knowledge and skill as are specified for that licence or rating.

2.1.1.4 *Transitional measures related to the powered-lift category* Until 10 March 2011, CAD may endorse a type rating for aircraft of the powered-lift category on an aeroplane or helicopter pilot licence. The endorsement of the rating on the licence shall indicate that the aircraft is part of the powered-lift category. The training for the type rating in the powered-lift category shall be completed during a course of approved training, shall take into account the previous experience of the applicant in an aeroplane or a helicopter as appropriate and incorporate all relevant aspects of operating an aircraft of the powered-lift category.

#### 2.1.2 Category ratings

2.1.2.1 When established, category ratings shall be for categories of aircraft listed in 2.1.1.1.

2.1.2.2 Category ratings are included in the title of the licence itself.

2.1.2.3 Any additional category rating endorsed on a pilot licence will indicate the level of licensing privileges at which the category rating is granted.

2.1.2.4 The holder of a pilot licence seeking additional category ratings shall meet the requirements of this Manual appropriate to the privileges for which the category rating is sought.

#### 2.1.3 Class and type ratings

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

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

2.1.3.1.1 Reserved

- 2.1.3.2 Type ratings will be established for:
- a) aircraft certificated for operation with a minimum crew of at least two pilots;
  - b) helicopters and powered-lifts certificated for single pilot operation except where a class rating has been issued under 2.1.3.1.1; and
  - c) any aircraft whenever considered necessary by CAD.

*Note1.* Where a common type rating is established, it shall be only for aircraft with similar characteristics in terms of operating procedures, systems and handling.

*Note2.* Requirements for class and type ratings for gliders and free balloons have not been determined.

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

2.1.4 Circumstances in which class and type ratings are required

- 2.1.4.1 CAD having issued a pilot licence will not permit the holder of such licence to act either as pilot in-command or as co-pilot of an aeroplane, an airship, a helicopter or a powered-lift unless the holder has received authorization as follows:

- a) the appropriate class rating specified in 2.1.3.1; or
- b) a type rating when required in accordance with the provisions of 2.1.3.2.

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

- 2.1.4.2 For the purpose of training, testing, or specific special purpose non-revenue, non-passenger carrying flights, special authorization may be provided in writing to the licence holder by CAD in place of issuing the class or type rating in accordance with 2.1.4.1. This authorization shall be limited in validity to the time needed to complete the specific flight.

2.1.5 Requirements for the issue of class and type ratings

- 2.1.5.1 *Class rating* The applicant shall have demonstrated a degree of skill appropriate to the licence in an aircraft of the class for which the rating is sought.

- 2.1.5.2 *Type rating as required by 2.1.3.2 a).* The applicant shall have:

- a) gained, under appropriate supervision, experience in the applicable type of aircraft and/or flight simulator in the following:
  - normal flight procedures and manoeuvres during all phases of flight;
  - abnormal and emergency procedures and manoeuvres in the event of failures and malfunctions of equipment, such as powerplant, systems and airframe;
  - where applicable, instrument procedures, including instrument approach, missed approach and landing procedures under normal, abnormal and emergency conditions, including simulated engine failure;
  - procedures for crew incapacitation and crew coordination including allocation of pilot tasks; crew cooperation and use of checklists;



*Note* Attention is called to 2.1.8.1 on the qualifications required for pilots giving flight training.

- b) demonstrated the skill and knowledge required for the safe operation of the applicable type of aircraft, relevant to the duties of a pilot-in-command or a co-pilot as applicable; and
- c) demonstrated, at the airline transport pilot licence level, an extent of knowledge acceptable to CAD, on the basis of the requirements specified in 2.6.1.2.

*Note.* See the Manual of Procedures for Establishment and Management of a State's Personnel Licensing System (Doc 9379) for guidance of a general nature on cross-crew qualification and cross-credit.

2.1.5.3 *Type rating as required by 2.1.3.2 b) and c)* The applicant shall have demonstrated the skill and knowledge required for the safe operation of the applicable type of aircraft, relevant to the licensing requirements and piloting functions of the applicant.

2.1.6 Use of a flight simulation training device for acquisition of experience and demonstration of skill.

The use of a flight simulation training device for acquiring the experience or performing any manoeuvre required during the demonstration of skill for the issue of a licence or rating shall be approved by CAD, which will ensure that the flight simulation training device used is appropriate to the task.

2.1.7 Circumstances in which an instrument rating is required

A person holding a Maldivian licence shall not act either as pilot-in-command or as co-pilot of an aircraft under instrument flight rules (IFR) unless such holder has received proper authorization from CAD. Proper authorization shall comprise an instrument rating appropriate to the aircraft category.

*Note* The instrument rating is included in the airline transport pilot licence — aeroplane or powered-lift category, multi-crew pilot licence, and commercial pilot licence — airship category. The provisions of 2.1.7 do not preclude the issue of a licence having the instrument rating as an integral part thereof.

2.1.8 Circumstances in which authorization to conduct instruction is required (refer CAR 9.21-9.23)

2.1.8.1 A person holding a Maldivian licence shall not carry out flight instruction required for the issue of a pilot licence or rating, unless such holder has received proper authorization from CAD. Such authorization shall comprise:

- a) a flight instructor rating on the holder's licence; or
- b) the authority to act as an agent of an approved organization authorized by CAD to carry out flight instruction; or
- c) a specific authorization granted by CAD.

2.1.8.2 A person shall not carry out instruction on a flight simulation training device required for the issue of a pilot licence or rating unless such person holds or has held an appropriate licence or has appropriate flight training and flight experience and has received proper authorization from CAD.

2.1.9 Crediting of flight time

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

2.1.9.2 The holder of a pilot licence, when acting as co-pilot at a pilot station of an aircraft certificated for operation by a single pilot but required by CAD to be operated with a co-pilot, will be entitled to be credited with not more than 50 per cent of the co-pilot flight time towards the total flight time required for a higher grade of pilot licence. CAD may authorize that flight time be credited in full towards the total flight time required if the aircraft is equipped to be operated by a co-pilot and the aircraft is operated in a multi-crew operation.

- 2.1.9.3 The holder of a pilot licence, when acting as co-pilot at a pilot station of an aircraft certificated to be operated with a co-pilot, shall be entitled to be credited in full with this flight time towards the total flight time required for a higher grade of pilot licence.
- 2.1.9.4 The holder of a pilot licence, when acting as pilot-in-command under supervision, shall be entitled to be credited in full with this flight time towards the total flight time required for a higher grade of pilot licence.
- 2.1.10 Limitation of privileges of pilots who have attained their 60th birthday and curtailment of privileges of pilots who have attained their 65th birthday
- 2.1.10.1 A person holding a Maldivian licence shall not act as pilot-in-command of an aircraft engaged in commercial air transport operations if the licence holders have attained their 60th birthday or, in the case of operations with more than one pilot where the other pilot is younger than 60 years of age, their 65<sup>th</sup> birthday.
- 2.1.10.2 A person holding a Maldivian licence shall not act as co-pilot of an aircraft engaged in commercial air transport operations if the licence holders have attained their 65th birthday.

**Note** Attention is drawn to 1.2.5.2.3 on the validity period of Medical Assessments for pilots over the age of 60 who are engaged in commercial air transport operations.

## 2.2 Student pilot

- 2.2.1 A student pilot shall meet the following requirements.
- (a) Be at least 16 years of age for other than the operation of a glider or balloon.
  - (b) Be at least 14 years of age for the operation of a glider or balloon.
  - (c) *Aeronautical knowledge.* A student pilot must demonstrate satisfactory aeronautical knowledge on a knowledge test that meets the requirements of this paragraph:
    - (1) The test must address the student pilot's knowledge of:
      - (i) Applicable sections of the CAR;
      - (ii) Airspace rules and procedures for the airport where the solo flight will be performed; and
      - (iii) Flight characteristics and operational limitations for the make and model of aircraft to be flown.
    - (2) The student's authorised instructor must:
      - (i) Administer the test; and
      - (ii) At the conclusion of the test, review all incorrect answers with the student before authorising that student to conduct a solo flight.
- 2.2.2 A student pilot will not fly solo unless under the supervision of, or with the authority of, an authorised flight instructor.
- 2.2.2.1 A student pilot shall not fly solo in an aircraft on an international flight unless by special or general arrangement between the Contracting States concerned.
- 2.2.3 Medical fitness  
A student pilot shall not fly unless that student pilot holds a current Class 2 Medical Assessment.

## 2.3 Private pilot licence

- 2.3.1 General requirements for the issue of the licence appropriate to the aeroplane, airship, helicopter and powered-lift categories
- 2.3.1.1 *Age*  
The applicant shall be not less than 17 years of age.
- 2.3.1.2 *Knowledge*

The applicant shall have demonstrated a level of knowledge appropriate to the privileges granted to the holder of a private pilot licence and appropriate to the category of aircraft intended to be included in the licence, in at least the following subjects:

*Air law*

- a) rules and regulations relevant to the holder of a private pilot licence; rules of the air; altimeter setting procedures; appropriate air traffic services practices and procedures; *Aircraft general knowledge for aeroplanes, airships, helicopters and powered-lifts*
- b) principles of operation and functioning of powerplants, systems and instruments;
- c) operating limitations of the relevant category of aircraft and powerplants; relevant operational information from the flight manual or other appropriate document;
- d) for helicopters and powered-lifts, transmission (power trains) where applicable;
- e) for airships, physical properties and practical application of gases; *Flight performance, planning and loading*
- f) effects of loading and mass distribution on flight characteristics; mass and balance calculations;
- g) use and practical application of take-off, landing and other performance data;
- h) pre-flight and en-route flight planning appropriate to private operations under VFR; preparation and filing of air traffic services flight plans; appropriate air traffic services procedures; position reporting procedures; altimeter setting procedures; operations in areas of high-density traffic;

*Human performance*

- i) human performance including principles of threat and error management;

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

*Meteorology*

- j) application of elementary aeronautical meteorology; use of, and procedures for obtaining, meteorological information; altimetry; hazardous weather conditions;

*Navigation*

- k) practical aspects of air navigation and dead-reckoning techniques; use of aeronautical charts;

*Operational procedures*

- l) application of threat and error management to operational performance;

**Note** *Guidance material on the application of threat and error management is found in the Procedures for Air Navigation Services — Training (PANS-TRG, Doc 9868), Chapter 3, Attachment C, and in Part II, Chapter 2, of the Human Factors Training Manual (Doc 9683).*

- m) altimeter setting procedures;
- n) use of aeronautical documentation such as AIP, NOTAM, aeronautical codes and abbreviations;
- o) appropriate precautionary and emergency procedures, including action to be taken to avoid hazardous weather, wake turbulence and other operating hazards;
- p) in the case of helicopters, and if applicable, powered lifts, settling with power; ground resonance; retreating blade stall; dynamic rollover and other operating hazards; safety procedures, associated with flight in VMC;

*Principles of flight*

- q) principles of flight;

*Radiotelephony*

- r) communication procedures and phraseology as applied to VFR operations; action to be taken in case of communication failure.

2.3.1.3 *Skill*

The applicant shall have demonstrated the ability to perform as pilot-in-command of an aircraft within the appropriate category of aircraft, the procedures and manoeuvres described in 2.3.3.2 or 2.3.4.2.1 or 2.3.5.2 or 2.3.6.2 with a degree of competency appropriate to the privileges granted to the holder of a private pilot licence, and to:

a) recognize and manage threats and errors;

**Note.** *Guidance material on the application of threat and error management is found in the Procedures for Air Navigation Services — Training (PANS-TRG, Doc 9868), Chapter 3, Attachment C, and in Part II, Chapter 2, of the Human Factors Training Manual (Doc 9683).*

b) operate the aircraft within its limitations;

c) complete all manoeuvres with smoothness and accuracy;

d) exercise good judgement and airmanship;

e) apply aeronautical knowledge; and

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

#### 2.3.1.4 *Medical fitness*

The applicant shall hold a current Class 2 Medical Assessment.

**Note.** *Attention is called to 2.7.1.3 on the medical fitness requirements for private pilot licence holders seeking an instrument rating.*

#### 2.3.2 Privileges of the holder of the licence and the conditions to be observed in exercising such privileges

2.3.2.1 Subject to compliance with the requirements specified in 1.2.5, 1.2.6, 1.2.7.1, 1.2.9 and 2.1, the privileges of the holder of a private pilot licence shall be to act, but not for remuneration, as pilot-in-command or co-pilot of aircraft within the appropriate aircraft category engaged in non-revenue flights.

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

#### 2.3.3 Specific requirements for the issue of the aeroplane category rating

##### 2.3.3.1 *Experience*

2.3.3.1.1 The applicant shall have completed not less than 40 hours of flight time, or 35 hours if completed during a course of approved training, as a pilot of aeroplanes appropriate to the class rating sought. 5 hours of experience as a pilot under instruction in a flight simulation training device is acceptable as part of the total flight time of 40 hours or 35 hours, as the case may be.

2.3.3.1.1.1 When the applicant has flight time as a pilot of aircraft in other categories, 10 hours of such experience is acceptable, towards meeting the total flight time requirements of 2.3.3.1.1.

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

##### 2.3.3.2 *Flight instruction*

The applicant shall have received dual instruction in aeroplanes appropriate to the class rating sought, from an authorized flight instructor. The instructor shall ensure that the applicant has operational experience in at least the following areas to the level of performance required for the private pilot:

a) recognize and manage threats and errors;

**Note.** *Guidance material on the application of threat and error management is found in the Procedures for Air Navigation Services — Training (PANS-TRG, Doc 9868), Chapter 3, Attachment C, and in Part II, Chapter 2, of the Human Factors Training Manual (ICAO Doc 9683).*

- b) pre-flight operations, including mass and balance determination, aeroplane inspection and servicing;
- c) aerodrome and traffic pattern operations, collision avoidance precautions and procedures;
- d) control of the aeroplane by external visual reference;
- e) flight at critically slow airspeeds; recognition of, and recovery from, incipient and full stalls;
- f) flight at critically high airspeeds; recognition of, and recovery from, spiral dives;
- g) normal and crosswind take-offs and landings;
- h) maximum performance (short field and obstacle clearance) take-offs; short-field landings;
- i) flight by reference solely to instruments, including the completion of a level 180° turn;
- j) cross-country flying using visual reference, dead reckoning and, where available, radio navigation aids;
- k) emergency operations, including simulated aeroplane equipment malfunctions;
- l) operations to, from and transiting controlled aerodromes, compliance with air traffic services procedures; and
- m) communication procedures and phraseology.

**Note.** *The instrument experience specified in 2.3.3.2.1 i) and the night flying dual instruction in 2.3.2.2 do not entitle the holder of a private pilot licence to pilot aeroplanes under IFR.*

## 2.3.4 Specific requirements for the issue of the helicopter category rating

### 2.3.4.1 Experience

2.3.4.1.1 The applicant shall have completed not less than 40 hours of flight time, or 35 hours if completed during a course of approved training, as a pilot of helicopters. 5 hours of experience as a pilot under instruction in a flight simulation training device is acceptable as part of the total flight time of 40 hours or 35 hours, as the case may be.

2.3.4.1.1.1 When the applicant has flight time as a pilot of aircraft in other categories, 10 hours of such experience is acceptable, towards meeting the total flight time requirements of 2.3.4.1.1.

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

### 2.3.4.2 Flight instruction

2.3.4.2.1 The applicant shall have received not less than 20 hours of dual instruction time in helicopters from an authorized flight instructor. The instructor shall ensure that the applicant has operational experience in at least the following areas to the level of performance required for the private pilot:

- a) recognize and manage threats and errors;

**Note.** *Guidance material on the application of threat and error management is found in the Procedures for Air Navigation Services — Training (PANS-TRG, Doc 9868), Chapter 3, Attachment C, and in Part II, Chapter 2, of the Human Factors Training Manual (Doc 9683).*

- b) pre-flight operations, including mass and balance determination, helicopter inspection and servicing;
- c) aerodrome and traffic pattern operations, collision avoidance precautions and procedures;
- d) control of the helicopter by external visual reference;
- e) recovery at the incipient stage from settling with power; recovery techniques from low-rotor rpm within the normal range of engine rpm;
- f) ground manoeuvring and run-ups; hovering; take-offs and landings — normal, out of wind and sloping ground;
- g) take-offs and landings with minimum necessary power; maximum performance take-off and landing techniques; restricted site operations; quick stops;

- h) cross-country flying using visual reference, dead reckoning and, where available, radio navigation aids, including a flight of at least one hour;
- i) emergency operations, including simulated helicopter equipment malfunctions; autorotative approach;
- j) operations to, from and transiting controlled aerodromes, compliance with air traffic services procedures; and
- k) communication procedures and phraseology.

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

**Note** *The instrument experience specified in 2.3.4.2.1.1 and the night flying dual instruction in 2.3.2.2 do not entitle the holder of a private pilot licence to pilot helicopters under IFR.*

2.3.5 Specific requirements for the issue of the powered-lift category rating

2.3.5.1 *Experience*

2.3.5.1.1 The applicant should have completed not less than 40 hours of flight time as a pilot of powered-lifts. 5 hours of experience as a pilot under instruction in a flight simulation training device is acceptable as part of the total flight time of 40 hours or 35 hours, as the case may be.

2.3.5.1.2 When the applicant has flight time as a pilot of aircraft in other categories, 10 hours of such flight time experience is acceptable as part of the total flight time of 40 hours.

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

2.3.5.2 *Flight instruction*

The applicant should have received not less than 20 hours of dual instruction time in powered-lifts from an authorized flight instructor. The instructor should ensure that the applicant has operational experience in at least the following areas to the level of performance required for the private pilot:

- a) recognize and manage threats and errors;

**Note.** Guidance material on the application of threat and error management is found in the Procedures for Air Navigation Services — Training (PANS-TRG, Doc 9868), Chapter 3, Attachment C, and in Part II, Chapter 2, of the Human Factors Training Manual (Doc 9683).

- b) pre-flight operations, including mass and balance determination, powered-lift inspection and servicing;
- c) aerodrome and traffic pattern operations, collision avoidance precautions and procedures;
- d) control of the powered-lift by external visual reference;
- e) ground manoeuvring and run-ups; hover and rolling take-offs and climb-out; hover and rolling approach and landings — normal, out of wind and sloping ground;
- f) take-offs and landings with minimum necessary power; maximum performance take-off and landing techniques; restricted site operations; quick stops;
- g) flight by reference solely to instruments, including the completion of a level 180° turn;
- h) recovery at the incipient stage from settling with power; recovery techniques from low-rotor rpm within the normal range of engine rpm;
- i) cross-country flying using visual reference, dead reckoning and, where available, radio navigation aids, including a flight of at least one hour;
- j) emergency operations, including simulated powered-lift equipment malfunctions; power of re-conversion to autorotation and autorotative approach, where applicable; transmission and interconnect driveshaft failure, where applicable;

- k) operations to from and transiting controlled aerodromes, compliance with air traffic services procedures; and
- l) communication procedures and phraseology.

**Note.** The instrument experience specified in 2.3.5.2 g) and the night flying dual instruction specified in 2.3.2.2 do not entitle the holder of a private pilot licence to pilot powered-lifts under IFR.

### 2.3.6 Specific requirements for the issue of the airship category rating

#### 2.3.6.1 *Experience*

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

- a) 3 hours of cross-country flight training in an airship with a cross-country flight totalling not less than 45 km (25 NM);
- b) 5 take-offs and 5 landings to a full stop at an aerodrome with each landing involving a flight in the traffic pattern at an aerodrome;
- c) 3 hours of instrument time; and
- d) 5 hours as pilot assuming the duties of the pilot-in-command under the supervision of the pilot-in-command.

#### 2.3.6.2 *Flight instruction*

The applicant shall have received dual instruction in airships from an authorized flight instructor. The instructor shall ensure that the applicant has received instruction in at least the following areas:

- a) recognize and manage threats and errors;

**Note.** *Guidance material on the application of threat and error management is found in the Procedures for Air Navigation Services — Training (PANS-TRG, Doc 9868), Chapter 3, Attachment C, and in Part II, Chapter 2, of the Human Factors Training Manual (Doc 9683).*

- b) pre-flight operations, including mass and balance determination, airship inspection and servicing;
- c) ground reference manoeuvres;
- d) aerodrome and traffic pattern operations, collision avoidance precautions and procedures;
- e) techniques and procedures for the take-off, including appropriate limitations, emergency procedures and signals used;
- f) control of the airship by external visual reference;
- g) take-offs, landings and go-arounds;
- h) maximum performance (obstacle clearance) take-offs;
- i) flight by reference solely to instruments, including the completion of a level 180o turn;
- j) navigation, cross-country flying using visual reference, dead reckoning and radio navigation aids;
- k) emergency operations (recognition of leaks), including simulated airship equipment malfunctions; and
- l) communication procedures and phraseology.

**Note.** *The instrument experience specified in 2.3.6.2 i) and the night flying dual instruction specified in 2.3.2.2 do not entitle the holder of a private pilot licence to pilot airships under IFR.*

## 2.4 Commercial pilot licence

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

#### 2.4.1.1 *Age*

The applicant shall be not less than 18 years of age.

#### 2.4.1.2 *Knowledge*

The applicant shall have demonstrated a level of knowledge appropriate to the privileges granted to the holder of a commercial pilot licence and appropriate to the category of aircraft intended to be included in the licence, in at least the following subjects:

*Air law*

- a) rules and regulations relevant to the holder of a commercial pilot licence; rules of the air; appropriate air traffic services practices and procedures; *Aircraft general knowledge for aeroplanes, airships, helicopters and powered-lifts*
- b) principles of operation and functioning of powerplants, systems and instruments;
- c) operating limitations of the relevant category of aircraft and powerplants; relevant operational information from the flight manual or other appropriate document;
- d) use and serviceability checks of equipment and systems of appropriate aircraft;
- e) maintenance procedures for airframes, systems and powerplants of appropriate aircraft;
- f) for helicopters and powered-lifts, transmission (power trains) where applicable;
- g) for airships, physical properties and practical application of gases;

*Flight performance, planning and loading*

- h) effects of loading and mass distribution on aircraft handling, flight characteristics and performance; mass and balance calculations;
- i) use and practical application of take-off, landing and other performance data;
- j) pre-flight and en-route flight planning appropriate to commercial operations under VFR; preparation and filing of air traffic services flight plans; appropriate air traffic services procedures; altimeter setting procedures;
- k) in the case of airships, helicopters and powered-lifts, effects of external loading on handling;

*Human performance*

- l) human performance including principles of threat and error management;

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

*Meteorology*

- m) interpretation and application of aeronautical meteorological reports, charts and forecasts; use of, and procedures for obtaining, meteorological information, pre-flight and in-flight; altimetry;
- n) aeronautical meteorology; climatology of relevant areas in respect of the elements having an effect upon aviation; the movement of pressure systems, the structure of fronts, and the origin and characteristics of significant weather phenomena which affect take-off, en-route and landing conditions;
- o) causes, recognition and effects of icing; frontal zone penetration procedures; hazardous weather avoidance;

*Navigation*

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

*Operational procedures*

- r) application of threat and error management to operational performance;



*Note.* Guidance material on the application of threat and error management is found in the Procedures for Air Navigation Services — Training (PANS-TRG, Doc 9868), Chapter 3, Attachment C, and in Part II, Chapter 2, of the Human Factors Training Manual (Doc 9683).

- s) use of aeronautical documentation such as AIP, NOTAM, aeronautical codes and abbreviations;
- t) altimeter setting procedures;
- u) appropriate precautionary and emergency procedures;
- v) operational procedures for carriage of freight; potential hazards associated with dangerous goods;
- w) requirements and practices for safety briefing to passengers, including precautions to be observed when embarking and disembarking from aircraft;
- x) in the case of helicopters, and if applicable, powered lifts, settling with power; ground resonance; retreating blade stall; dynamic rollover and other operating hazards; safety procedures, associated with flight in VMC;

*Principles of flight*

- y) principles of flight;

*Radiotelephony*

- z) communication procedures and phraseology as applied to VFR operations; action to be taken in case of communication failure.

2.4.1.3 *Skill*

The applicant shall have demonstrated the ability to perform as pilot-in-command of an aircraft within the appropriate category of aircraft, the procedures and manoeuvres described in 2.4.3.2 or 2.4.4.2 or 2.4.5.2 or 2.4.6.2 with a degree of competency appropriate to the privileges granted to the holder of a commercial pilot licence, and to:

- a) recognize and manage threats and errors;

*Note.* Guidance material on the application of threat and error management is found in the Procedures for Air Navigation Services — Training (PANS-TRG, Doc 9868), Chapter 3, Attachment C, and in Part II, Chapter 2, of the Human Factors Training Manual (Doc 9683).

- b) operate the aircraft within its limitations;
- c) complete all manoeuvres with smoothness and accuracy;
- d) exercise good judgement and airmanship;
- e) apply aeronautical knowledge; and
- f) maintain control of the aircraft at all times in a manner such that the successful outcome of a procedure or manoeuvre is assured.

2.4.1.4 *Medical fitness*

The applicant shall hold a current Class 1 Medical Assessment.

2.4.2 Privileges of the holder of the licence and the conditions to be observed in exercising such privileges

2.4.2.1 Subject to compliance with the requirements specified in 1.2.5, 1.2.6, 1.2.7.1, 1.2.9 and 2.1, the privileges of the holder of a commercial pilot licence shall be:

- a) to exercise all the privileges of the holder of a private pilot licence in an aircraft within the appropriate aircraft category;
- b) to act as pilot-in-command of an aircraft within the appropriate aircraft category engaged in operations other than commercial air transportation;
- c) to act as pilot-in-command, in commercial air transportation, of an aircraft within the appropriate aircraft category and certificated for single-pilot operation;
- d) to act as co-pilot of an aircraft within the appropriate aircraft category required to be operated with a co-pilot; and
- e) for the airship category, to pilot an airship under IFR.

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

*Note.* Certain privileges of the licence are curtailed by 2.1.10 for licence holders when they attain their 60th and 65<sup>th</sup> birthdays.

2.4.3 Specific requirements for the issue of the aeroplane category rating

2.4.3.1 *Experience*

2.4.3.1.1 The applicant shall have completed not less than 200 hours of flight time, or 150 hours if completed during a course of approved training, as a pilot of aeroplanes. 10 hours of experience as a pilot under instruction in a flight simulation training device is acceptable as part of the total flight time of 200 hours or 150 hours, as the case may be.

2.4.3.1.1.1 The applicant shall have completed in aeroplanes not less than:

- a) 100 hours as pilot-in-command or, in the case of a course of approved training, 70 hours as pilot-in-command;
- b) 20 hours of cross-country flight time as pilot-in-command including a cross-country flight totalling not less than 540 km (300 NM) in the course of which full-stop landings at two different aerodromes shall be made;
- c) 10 hours of instrument instruction time of which not more than 5 hours may be instrument ground time; and
- d) if the privileges of the licence are to be exercised at night, 5 hours of night flight time including 5 take-offs and 5 landings as pilot-in-command.

2.4.3.1.2 When the applicant has flight time as a pilot of aircraft in other categories, 30 hours of such experience is acceptable, towards meeting the total flight time requirements of 2.4.3.1.1.

2.4.3.2 *Flight instruction*

The applicant shall have received dual instruction in aeroplanes appropriate to the class and/or type rating, sought from an authorized flight instructor. The instructor shall ensure that the applicant has operational experience in at least the following areas to the level of performance required for the commercial pilot;

- a) recognize and manage threats and errors;

*Note.* Guidance material on the application of threat and error management is found in the Procedures for Air Navigation Services — Training (PANS-TRG, Doc 9868), Chapter 3, Attachment C, and in Part II, Chapter 2, of the Human Factors Training Manual (Doc 9683).

- b) pre-flight operations, including mass and balance determination, aeroplane inspection and servicing;
- c) aerodrome and traffic pattern operations, collision avoidance precautions and procedures;
- d) control of the aeroplane by external visual reference;
- e) flight at critically slow airspeeds; spin avoidance; recognition of, and recovery from, incipient and full stalls;
- f) flight with asymmetrical power for multi-engine class or type ratings;
- g) flight at critically high airspeeds; recognition of, and recovery from, spiral dives;
- h) normal and crosswind take-offs and landings;
- i) maximum performance (short field and obstacle clearance) take-offs; short-field landings;
- j) basic flight manoeuvres and recovery from unusual attitudes by reference solely to basic flight instruments;
- k) cross-country flying using visual reference, dead reckoning and radio navigation aids; diversion procedures;
- l) abnormal and emergency procedures and manoeuvres including simulated aeroplane equipment malfunctions;
- m) operations to, from and transiting controlled aerodromes, compliance with air traffic services procedures; and

- n) communication procedures and phraseology.

**Note.** *The instrument experience specified in 2.4.3.1.1.1 c) and 2.4.3.2 j) and the night flying experience and dual instruction specified in 2.4.3.1.1.1 d) and 2.4.2.2 do not entitle the holder of a commercial pilot licence to pilot aeroplanes under IFR.*

#### 2.4.4 Specific requirements for the issue of the helicopter category rating

##### 2.4.4.1 Experience

2.4.4.1.1 The applicant shall have completed not less than 150 hours of flight time, or 100 hours if completed during a course of approved training, as a pilot of helicopters. 10 hours of experience as a pilot under instruction in a flight simulation training device is acceptable as part of the total flight time of 150 hours or 100 hours, as the case may be.

2.4.4.1.1.1 The applicant shall have completed in helicopters not less than:

- a) 35 hours as pilot-in-command;
- b) 10 hours of cross-country flight time as pilot-in-command including a cross-country flight in the course of which landings at two different points shall be made;
- c) 10 hours of instrument instruction time of which not more than 5 hours may be instrument ground time; and
- d) if the privileges of the licence are to be exercised at night, 5 hours of night flight time including 5 take-offs and 5 landing patterns as pilot-in-command.

2.4.4.1.2 When the applicant has flight time as a pilot of aircraft in other categories, 20 hours of such experience is acceptable, towards meeting the total flight time requirements of 2.4.4.1.1.

##### 2.4.4.2 Flight instruction

The applicant shall have received dual instruction in helicopters from an authorized flight instructor. The instructor shall ensure that the applicant has operational experience in at least the following areas to the level of performance required for the commercial pilot:

- a) recognize and manage threats and errors;

**Note.** *Guidance material on the application of threat and error management is found in the Procedures for Air Navigation Services — Training (PANS-TRG, Doc 9868), Chapter 3, Attachment C, and in Part II, Chapter 2, of the Human Factors Training Manual (Doc 9683).*

- b) pre-flight operations, including mass and balance determination, helicopter inspection and servicing;
- c) aerodrome and traffic pattern operations, collision avoidance precautions and procedures;
- d) control of the helicopter by external visual reference;
- e) recovery at the incipient stage from settling with power; recovery techniques from low-rotor rpm within the normal range of engine rpm;
- f) ground manoeuvring and run-ups; hovering; take-offs and landings — normal, out of wind and sloping ground; steep approaches;
- g) take-offs and landings with minimum necessary power; maximum performance take-off and landing techniques; restricted site operations; quick stops;
- h) hovering out of ground effect; operations with external load, if applicable; flight at high altitude;
- i) basic flight manoeuvres and recovery from unusual attitudes by reference solely to basic flight instruments;
- j) cross-country flying using visual reference, dead reckoning and radio navigation aids; diversion procedures;
- k) abnormal and emergency procedures, including simulated helicopter equipment malfunctions, autorotative approach and landing;
- l) operations to, from and transiting controlled aerodromes, compliance with air traffic services procedures; and
- m) communication procedures and phraseology.

*Note.* The instrument experience specified in 2.4.4.1.1.1 c) and 2.4.4.2 i) and the night flying experience and dual instruction specified in 2.4.4.1.1.1 d) and 2.4.2.2 do not entitle the holder of a commercial pilot licence to pilot helicopters under IFR.

#### 2.4.5 Specific requirements for the issue of the powered-lift category rating

##### 2.4.5.1 Experience

2.4.5.1.1 The applicant shall have completed not less than 200 hours of flight time in a powered lift, or 150 hours if completed during a course of approved training, as a pilot of aircraft. 10 hours of experience as a pilot under instruction in a flight simulation training device is acceptable as part of the total flight time of 200 hours or 150 hours, as the case may be.

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

- a) 50 hours as pilot-in-command;
- b) 10 hours of cross-country flying as pilot-in-command including a cross-country flight totalling not less than 540 km (300 NM) in the course of which full-stop landings at two different aerodromes should be made;
- c) 10 hours of instrument instruction of which not more than 5 hours may be instrument ground time; and
- d) if the privileges of the licence are to be exercised at night, 5 hours of night flight time including 5 take-offs and landings as pilot-in-command.

2.4.5.1.3 When the applicant has flight time as a pilot of aircraft in other categories, 30 hours of such experience is acceptable, towards meeting the total flight time requirements of 2.4.5.1.1.

##### 2.4.5.2 Flight instruction

The applicant shall have received dual instruction time in a powered-lift from an authorized flight instructor. The instructor shall ensure that the applicant has operational experience in at least the following areas to the level of performance required for the commercial pilot:

- a) recognize and manage threats and errors;

*Note.* Guidance material on the application of threat and error management is found in the Procedures for Air Navigation Services — Training (PANS-TRG, Doc 9868), Chapter 3, Attachment C, and in Part II, Chapter 2, of the Human Factors Training Manual (Doc 9683).

- b) pre-flight operations, including mass and balance determination, powered-lift inspection and servicing;
- c) aerodrome and traffic pattern operations, collision avoidance precautions and procedures;
- d) control of the powered-lift by external visual reference;
- e) recovery at the incipient stage from settling with power; recovery techniques from low-rotor rpm within the normal range of engine rpm;
- f) ground manoeuvring and run-ups; hover and rolling take-offs and climb-out; hover and rolling approach and landings — normal, out of wind and sloping ground; steep approaches;
- g) take-offs and landings with minimum necessary power; maximum performance take-off and landing techniques; restricted site operations; quick stops;
- h) hovering out of ground effect; operations with external load, if applicable; flight at high altitude;
- i) basic flight manoeuvres and recovery from unusual attitudes by reference solely to basic flight instruments;
- j) cross-country flying using visual reference, dead reckoning and, where available, radio navigation aids, including a flight of at least one hour;
- k) emergency operations, including simulated powered-lift equipment malfunctions; power of re-conversion to autorotation and autorotative approach, where applicable; transmission and interconnect driveshaft failure, where applicable;
- l) operations to, from and transiting controlled aerodromes, compliance with air traffic services procedures; and
- m) communication procedures and phraseology.

*Note.* The instrument experience specified in 2.4.5.1.2 c) and 2.4.5.2 i) and the night flying experience and dual instruction specified in 2.4.5.1.2 d) and 2.4.2.2 do not entitle the holder of a commercial pilot licence to pilot powered-lifts under IFR.

#### 2.4.6 Specific requirements for the issue of the airship category rating

##### 2.4.6.1 Experience

2.4.6.1.1 The applicant shall have completed not less than 200 hours of flight time as a pilot.

2.4.6.1.1.1 The applicant shall have completed not less than:

- a) 50 hours as a pilot of airships;
- b) 30 hours in airships as pilot-in-command or pilot-in command under supervision, to include not less than:
  - 10 hours of cross-country flight time; and
  - 10 hours of night flight;
- c) 40 hours of instrument time, of which 20 hours shall be in flight and 10 hours in flight in airships; and
- d) 20 hours of flight training in airships in the areas of operation listed in 2.4.6.2.

##### 2.4.6.2 Flight instruction

The applicant shall have received dual instruction in airships from an authorized flight instructor. The instructor shall ensure that the applicant has operational experience in at least the following areas to the level of performance required for the commercial pilot:

- a) recognize and manage threats and errors;

*Note.* Guidance material on the application of threat and error management is found in the Procedures for Air Navigation Services — Training (PANS-TRG, Doc 9868), Chapter 3, Attachment C, and in Part II, Chapter 2, of the Human Factors Training Manual (Doc 9683).

- b) pre-flight operations, including mass and balance determination, airship inspection and servicing;
- c) aerodrome and traffic pattern operations, collision avoidance precautions and procedures;
- d) techniques and procedures for the take-off, including appropriate limitations, emergency procedures and signals used;
- e) control of the airship by external visual reference;
- f) recognition of leaks;
- g) normal take-offs and landings;
- h) maximum performance (short field and obstacle clearance) take-offs; short-field landings;
- i) flight under IFR;
- j) cross-country flying using visual reference, dead reckoning and, where available, radio navigation aids;
- k) emergency operations, including simulated airship equipment malfunctions;
- l) operations to, from and transiting controlled aerodromes, compliance with air traffic services procedures; and
- m) communication procedures and phraseology.

## 2.5 Multi-crew pilot licence appropriate to the aeroplane category

### 2.5.1 General requirements for the issue of the licence

#### 2.5.1.1 Age

The applicant shall be not less than 18 years of age.

#### 2.5.1.2 Knowledge

The applicant shall have met the requirements specified in 2.6.1.2 for the airline transport pilot licence appropriate to the aeroplane category in an approved training course.

#### 2.5.1.3 Skill

2.5.1.3.1 The applicant shall have demonstrated the skills required for fulfilling all the competency units specified in Appendix 3 as pilot flying and pilot not flying, to the level required to perform as a co-pilot of turbine-powered aeroplanes certificated for operation with a minimum crew of at least two pilots under VFR and IFR, and to:

- a) recognize and manage threats and errors;

*Note.* Guidance material on the application of threat and error management is found in the Procedures for Air Navigation Services — Training (PANS-TRG, Doc 9868), Chapter 3, Attachment C, and in Part II, Chapter 2, of the Human Factors Training Manual (Doc 9683).

- b) smoothly and accurately, manually control the aeroplane within its limitations at all times, such that the successful outcome of a procedure or manoeuvre is assured;
- c) operate the aeroplane in the mode of automation appropriate to the phase of flight and to maintain awareness of the active mode of automation;
- d) perform, in an accurate manner, normal, abnormal and emergency procedures in all phases of flight; and e) communicate effectively with other flight crew members and demonstrate the ability to effectively perform procedures for crew incapacitation, crew coordination, including allocation of pilot tasks, crew cooperation, adherence to standard operating procedures (SOPs) and use of checklists.

2.5.1.3.2 Progress in acquiring the skills specified in 2.5.1.3.1 shall be continuously assessed.

#### 2.5.1.4 Medical fitness

The applicant shall hold a current Class 1 medical assessment.

#### 2.5.2 Privileges of the holder of the licence and the conditions to be observed in exercising such privileges

2.5.2.1 Subject to compliance with the requirements specified in 1.2.5, 1.2.6, 1.2.7.1, 1.2.9 and 2.1, the privileges of the holder of a multi-crew pilot licence will be:

- a) to exercise all the privileges of the holder of a private pilot licence in the aeroplane category provided the requirements of paragraph 2.3.3 have been met;
- b) to exercise the privileges of the instrument rating in a multi-crew operation; and
- c) to act as co-pilot of an aeroplane required to be operated with a co-pilot.

2.5.2.2 Before exercising the privileges of the instrument rating in a single-pilot operation in aeroplanes, the licence holder shall have demonstrated an ability to act as pilot-in command in a single-pilot operation exercised by reference solely to instruments and shall have met the skill requirement specified in 2.7.1.2 appropriate to the aeroplane category.

2.5.2.3 Before exercising the privileges of a commercial pilot licence in a single-pilot operation in aeroplanes, the licence holder shall have:

- a) completed in aeroplanes 70 hours, either as pilot-in command, or made up of not less than 10 hours as pilot-in-command and the necessary additional flight time as pilot-in-command under supervision;
- b) completed 20 hours of cross-country flight time as pilot-in-command, or made up of not less than 10 hours as pilot-in-command and 10 hours as pilot-in command under supervision, including a cross-country flight totalling not less than 540 km (300 NM) in the course of which full-stop landings at two different aerodromes shall be made; and
- c) met the requirements for the commercial pilot licence specified in 2.4.1.2, 2.4.1.3, 2.4.3.1.1 (with the exception of 2.4.3.1.1.1 a)) and 2.4.3.2 appropriate to the aeroplane category.

*Note1.* When a Contracting State grants single-pilot operation privileges to the holder of a multi-crew pilot licence, it can document the privileges through an endorsement of the multi-crew pilot licence or through the issuance of a commercial pilot licence in the aeroplane category.

*Note2.* Certain privileges of the licence are curtailed by 2.1.10 for licence holders when they attain their 65th birthday.

#### 2.5.3 Experience

- 2.5.3.1 The applicant shall have completed in an approved training course not less than 240 hours as pilot flying and pilot not flying of actual and simulated flight.
- 2.5.3.2 Flight experience in actual flight shall include at least the experience requirements at 2.3.3.1, upset recovery training, night flying and flight by reference solely to instruments.
- 2.5.3.3 In addition to meeting the provisions of 2.5.3.2, the applicant shall have gained, in a turbine-powered aeroplane certificated for operation with a minimum crew of at least two pilots, or in a flight simulation training device approved for that purpose CAD in accordance with Appendix 3, paragraph 4, the experience necessary to achieve the advanced level of competency defined in Appendix 3.
- 2.5.4 Flight instruction
- 2.5.4.1 The applicant shall have completed a course of approved training covering the experience requirements specified in 2.5.3.
- 2.5.4.2 The applicant shall have received dual flight instruction in all the competency units specified in Appendix 3, to the level required for the issue of the multi-crew pilot licence, to include the competency units required to pilot under instrument flight rules.

## 2.6 Airline transport pilot licence

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

2.6.1.1 *Age*

The applicant shall be not less than 21 years of age.

2.6.1.2 *Knowledge*

- 2.6.1.2.1 The applicant shall have demonstrated a level of knowledge appropriate to the privileges granted to the holder of an airline transport pilot licence and appropriate to the category of aircraft intended to be included in the licence, in at least the following subjects:

*Air law*

- a) rules and regulations relevant to the holder of an airline transport pilot licence; rules of the air; appropriate air traffic services practices and procedures; *Aircraft general knowledge for aeroplanes, helicopters and powered-lifts*
- b) general characteristics and limitations of electrical, hydraulic, pressurization and other aircraft systems; flight control systems, including autopilot and stability augmentation;
- c) principles of operation, handling procedures and operating limitations of aircraft powerplants; effects of atmospheric conditions on engine performance; relevant operational information from the flight manual or other appropriate document;
- d) operating procedures and limitations of the relevant category of aircraft; effects of atmospheric conditions on aircraft performance in accordance with the relevant operational information from the flight manual;
- e) use and serviceability checks of equipment and systems of appropriate aircraft;
- f) flight instruments; compasses, turning and acceleration errors; gyroscopic instruments, operational limits and precession effects; practices and procedures in the event of malfunctions of various flight instruments and electronic display units;
- g) maintenance procedures for airframes, systems and powerplants of appropriate aircraft;
- h) for helicopters and powered-lifts, transmission (power trains) where applicable;

*Flight performance, planning and loading*

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

- j) use and practical application of take-off, landing and other performance data, including procedures for cruise control;
- k) pre-flight and en-route operational flight planning; preparation and filing of air traffic services flight plans; appropriate air traffic services procedures; altimeter setting procedures;
- l) in the case of helicopters and powered-lifts, effects of external loading on handling;

*Human performance*

- m) human performance including principles of threat and error management;

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

*Meteorology*

- n) interpretation and application of aeronautical meteorological reports, charts and forecasts; codes and abbreviations; use of, and procedures for obtaining, meteorological information, pre-flight and in-flight; altimetry;
- o) aeronautical meteorology; climatology of relevant areas in respect of the elements having an effect upon aviation; the movement of pressure systems; the structure of fronts, and the origin and characteristics of significant weather phenomena which affect take-off, en-route and landing conditions;
- p) causes, recognition and effects of icing; frontal zone penetration procedures; hazardous weather avoidance;
- q) in the case of aeroplanes and powered-lifts, practical high altitude meteorology, including interpretation and use of weather reports, charts and forecasts; jet streams;

*Navigation*

- r) air navigation, including the use of aeronautical charts, radio navigation aids and area navigation systems; specific navigation requirements for long-range flights;
- s) use, limitation and serviceability of avionics and instruments necessary for the control and navigation of aircraft;
- t) use, accuracy and reliability of navigation systems used in departure, en-route, approach and landing phases of flight; identification of radio navigation aids;
- u) principles and characteristics of self-contained and external-referenced navigation systems; operation of airborne equipment;

*Operational procedures*

- v) application of threat and error management to operational performance;

**Note** *Guidance material on the application of threat and error management is found in the Procedures for Air Navigation Services — Training (PANS-TRG, Doc 9868), Chapter 3, Attachment C, and in Part II, Chapter 2, of the Human Factors Training Manual (Doc 9683).*

- w) interpretation and use of aeronautical documentation such as AIP, NOTAM, aeronautical codes and abbreviations;
- x) precautionary and emergency procedures; safety practices;
- y) operational procedures for carriage of freight and dangerous goods;
- z) requirements and practices for safety briefing to passengers, including precautions to be observed when embarking and disembarking from aircraft;
- aa) in the case of helicopters, and if applicable, powered lifts, settling with power; ground resonance; retreating blade stall; dynamic rollover and other operating hazards; safety procedures, associated with flight in VMC;

*Principles of flight*

- bb) principles of flight;

*Radiotelephony*

- cc) communication procedures and phraseology; action to be taken in case of communication failure.



2.6.1.2.2 In addition to the above subjects, the applicant for an airline transport pilot licence applicable to the aeroplane or powered-lift category shall have met the knowledge requirements for the instrument rating at 2.7.1.1.

2.6.1.3 *Skill*

2.6.1.3.1 The applicant shall have demonstrated the ability to perform, as pilot-in-command of an aircraft within the appropriate category required to be operated with a copilot, the following procedures and manoeuvres:

- a) pre-flight procedures, including the preparation of the operational flight plan and filing of the air traffic services flight plan;
- b) normal flight procedures and manoeuvres during all phases of flight;
- c) abnormal and emergency procedures and manoeuvres related to failures and malfunctions of equipment, such as powerplant, systems and airframe;
- d) procedures for crew incapacitation and crew coordination, including allocation of pilot tasks, crew cooperation and use of checklists; and
- e) in the case of aeroplanes and powered-lifts, procedures and manoeuvres for instrument flight described in 2.7.4.1 a) to d), including simulated engine failure.

2.6.1.3.1.1 In the case of an aeroplane, the applicant shall have demonstrated the ability to perform the procedures and manoeuvres described in 2.6.1.3.1 as pilot-in-command of a multi-engined aeroplane.

2.6.1.3.1.2 The applicant shall have demonstrated the ability to perform the procedures and manoeuvres described in 2.6.1.3 with a degree of competency appropriate to the privileges granted to the holder of an airline transport pilot licence, and to:

- a) recognize and manage threats and errors;

**Note** *Guidance material on the application of threat and error management is found in the Procedures for Air Navigation Services — Training (PANS-TRG, Doc 9868), Chapter 3, Attachment C, and in Part II, Chapter 2, of the Human Factors Training Manual (Doc 9683).*

- b) smoothly and accurately, manually control the aircraft within its limitations at all times, such that the successful outcome of a procedure or manoeuvre is assured;
- c) operate the aircraft in the mode of automation appropriate to the phase of flight and to maintain awareness of the active mode of automation;
- d) perform, in an accurate manner, normal, abnormal and emergency procedures in all phases of flight;
- e) exercise good judgement and airmanship, to include structured decision making and the maintenance of situational awareness; and
- f) communicate effectively with other flight crew members and demonstrate the ability to effectively perform procedures for crew incapacitation, crew coordination, including allocation of pilot tasks, crew cooperation, adherence to standard operating procedures (SOPs) and use of checklists.

2.6.1.4 *Medical fitness*

The applicant shall hold a current Class 1 Medical Assessment.

2.6.2 Privileges of the holder of the licence and the conditions to be observed in exercising such privileges

2.6.2.1 Subject to compliance with the requirements specified in 1.2.5, 1.2.6, 1.2.7.1, 1.2.9 and 2.1, the privileges of the holder of an airline transport pilot licence shall be:

- a) to exercise all the privileges of the holder of a private and commercial pilot licence in an aircraft within the appropriate aircraft category and, in the case of a licence for the aeroplane and powered-lift categories, of the instrument rating; and
- b) to act as pilot-in-command, in commercial air transportation, of an aircraft within the appropriate category and certificated for operation with more than one pilot.

2.6.2.2 When the holder of an airline transport pilot licence in the aeroplane category has previously held only a multi-crew pilot licence, the privileges of the licence shall be limited to multi-crew operations unless

the holder has met the requirements established in 2.5.2.1 a), 2.5.2.2 and 2.5.2.3 as appropriate. Any limitation of privileges shall be endorsed on the licence.

*Note.* Certain privileges of the licence are curtailed by 2.1.10 for licence holders when they attain their 60th and 65<sup>th</sup> birthdays.

## 2.6.3 Specific requirements for the issue of the aeroplane category rating

### 2.6.3.1 Experience

2.6.3.1.1 The applicant shall have completed not less than 1 500 hours of flight time as a pilot of aeroplanes. Experience as a pilot under instruction in a flight simulation training device is acceptable as part of the total flight time of 1 500 hours. Credit for such experience is limited to a maximum of 100 hours, of which not more than 25 hours shall have been acquired in a flight procedure trainer or a basic instrument flight trainer.

2.6.3.1.1.1 The applicant shall have completed in aeroplanes not less than:

- a) 500 hours as pilot-in-command under supervision or 250 hours, either as pilot-in-command, or made up by not less than 70 hours as pilot-in-command and the necessary additional flight time as pilot-in-command under supervision;
- b) 200 hours of cross-country flight time, of which not less than 100 hours shall be as pilot-in-command or as pilot-in-command under supervision;
- c) 75 hours of instrument time, of which not more than 30 hours may be instrument ground time; and
- d) 100 hours of night flight as pilot-in-command or as co-pilot.

2.6.3.1.2 When the applicant has flight time as a pilot of aircraft in other categories, 100 hours of such experience is acceptable, towards meeting the total flight time requirements of 2.6.3.1.1.

### 2.6.3.2 Flight instruction

The applicant shall have received the dual flight instruction required at 2.4.3.2 for the issue of the commercial pilot licence and at 2.7.4 for the issue of the instrument rating or at 2.5.4 for the issue of the multi-crew pilot licence.

## 2.6.4 Specific requirements for the issue of the helicopter category rating

### 2.6.4.1 Experience

2.6.4.1.1 The applicant shall have completed not less than 1 000 hours of flight time as a pilot of helicopters. Experience as a pilot under instruction in a flight simulation training device is acceptable as part of the total flight time of 1 000 hours. Credit for such experience is limited to a maximum of 100 hours, of which not more than 25 hours shall have been acquired in a flight procedure trainer or a basic instrument flight trainer.

2.6.4.1.1.1 The applicant shall have completed in helicopters not less than:

- a) 250 hours, either as pilot-in-command, or made up of not less than 70 hours as pilot-in-command and the necessary additional flight time as pilot-in-command under supervision;
- b) 200 hours of cross-country flight time, of which not less than 100 hours shall be as pilot-in-command or as pilot-in-command under supervision;
- c) 30 hours of instrument time, of which not more than 10 hours may be instrument ground time; and
- d) 50 hours of night flight as pilot-in-command or as co-pilot.

2.6.4.1.2 When the applicant has flight time as a pilot of aircraft in other categories, 100 hours of such experience is acceptable, towards meeting the total flight time requirements of 2.6.4.1.1.

### 2.6.4.2 Flight instruction

The applicant shall have received the flight instruction required for the issue of the commercial pilot licence (2.4.4.2).

*Note.* The instrument time specified in 2.6.4.1.1.1 c) and the night flying time specified in 2.6.4.1.1.1 d) do not entitle the holder of the airline transport pilot licence — helicopter to pilot helicopters under IFR.

## 2.6.5 Specific requirements for the issue of the powered-lift category rating

### 2.6.5.1 Experience

2.6.5.1.1 The applicant shall have completed not less than 1 500 hours of flight time as a pilot of powered-lifts. 100 hours of experience as a pilot under instruction in a flight simulation training device is acceptable as part of the total flight time of 1 500 hours.

2.6.5.1.2 The applicant should have completed in powered-lifts not less than:

- a) 250 hours, either as pilot-in-command, or made up of not less than 70 hours as pilot-in-command and the necessary additional flight time as pilot-in-command under supervision;
- b) 100 hours of cross-country flight time, of which not less than 50 hours should be as pilot-in-command or as pilot-in-command under supervision;
- c) 75 hours of instrument time, of which not more than 30 hours may be instrument ground time; and
- d) 25 hours of night flight as pilot-in-command or as co-pilot.

2.6.5.1.3 When the applicant has flight time as a pilot of aircraft in other categories, 100 hours of such experience is acceptable, towards meeting the total flight time requirements of 2.6.5.1.1.

### 2.6.5.2 Flight instruction

The applicant shall have received the dual flight instruction required at 2.4.5.2 for the issue of the commercial pilot licence and at 2.7.4 for the issue of the instrument rating.

## 2.7 Instrument rating

### 2.7.1 Requirements for the issue of the rating for aeroplane, airship, helicopter and powered-lift categories

#### 2.7.1.1 Knowledge

The applicant shall have demonstrated a level of knowledge appropriate to the privileges granted to the holder of an instrument rating, in at least the following subjects:

##### *Air law*

- a) rules and regulations relevant to flight under IFR; related air traffic services practices and procedures;

##### *Aircraft general knowledge for the aircraft category being sought*

- b) use, limitation and serviceability of avionics, electronic devices and instruments necessary for the control and navigation of aircraft under IFR and in instrument meteorological conditions; use and limitations of autopilot;
- c) compasses, turning and acceleration errors; gyroscopic instruments, operational limits and precession effects; practices and procedures in the event of malfunctions of various flight instruments;

##### *Flight performance and planning for the aircraft category being sought*

- d) pre-flight preparations and checks appropriate to flight under IFR;
- e) operational flight planning; preparation and filing of air traffic services flight plans under IFR; altimeter setting procedures;

##### *Human performance for the aircraft category being sought*

- f) human performance relevant to instrument flight in aircraft including principles of threat and error management;

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

*Meteorology for the aircraft category being sought*

- g) application of aeronautical meteorology; interpretation and use of reports, charts and forecasts; codes and abbreviations; use of, and procedures for obtaining, meteorological information; altimetry;
- h) causes, recognition and effects of icing; frontal zone penetration procedures; hazardous weather avoidance;
- i) in the case of helicopters and powered-lifts, effects of rotor icing;

*Navigation for the aircraft category being sought*

- j) practical air navigation using radio navigation aids;
- k) use, accuracy and reliability of navigation systems used in departure, en-route, approach and landing phases of flight; identification of radio navigation aids;

*Operational procedures for the aircraft category being sought*

- l) application of threat and error management to operational performance;
- m) interpretation and use of aeronautical documentation such as AIP, NOTAM, aeronautical codes and abbreviations, and instrument procedure charts for departure, en-route, descent and approach;
- n) precautionary and emergency procedures; safety practices associated with flight under IFR; obstacle clearance criteria;

**Note** *Information for pilots and flight operations personnel on flight procedure parameters and operational procedures is contained in the Procedures for Air Navigation Services (PANS-OPS, Doc 8168), Volume I — Flight Procedures. Procedures used in certain States may differ from PANS-OPS, and knowledge of these differences is important for safety reasons.*

*Radiotelephony*

- o) communication procedures and phraseology as applied to aircraft operations under IFR; action to be taken in case of communication failure.

2.7.1.2 *Skill*

2.7.1.2.1 The applicant shall have demonstrated in an aircraft of the category for which the instrument rating is being sought the ability to perform the procedures and manoeuvres described in 2.7.4.1 with a degree of competency appropriate to the privileges granted to the holder of an instrument rating, and to:

- a) recognize and manage threats and errors;

**Note.** *Guidance material on the application of threat and error management is found in the Procedures for Air Navigation Services — Training (PANS-TRG, Doc 9868), Chapter 3, Attachment C, and in Part II, Chapter 2, of the Human Factors Training Manual (Doc 9683).*

- b) operate the aircraft for the category being sought, within its limitations;
- c) complete all manoeuvres with smoothness and accuracy;
- d) exercise good judgement and airmanship;
- e) apply aeronautical knowledge; and
- f) maintain control of the aircraft at all times in a manner such that the successful outcome of a procedure or manoeuvre is assured.

2.7.1.2.1.1 The applicant shall have demonstrated the ability to operate multi-engined aircraft within the appropriate category by reference solely to instruments with one engine inoperative, or simulated inoperative, if the privileges of the instrument rating are to be exercised on such aircraft.

**Note.** *Attention is called to 2.1.6 on the use of flight simulation training devices for demonstrations of skill.*

2.7.1.3 *Medical fitness*

Applicants shall hold a Class 1 Medical Assessment.

2.7.1.3.1 **Reserved.**

2.7.1.3.2 **Reserved.**

2.7.2 Privileges of the holder of the rating and the conditions to be observed in exercising such privileges

2.7.2.1 Subject to compliance with the requirements specified in 1.2.5, 1.2.6 and 2.1, the privileges of the holder of an instrument rating with a specific aircraft category shall be to pilot that category of aircraft under IFR.

2.7.2.2 Before exercising the privileges on multi-engined aircraft, the holder of the rating shall have complied with the requirements of 2.7.1.2.1.1.

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

2.7.3 Experience

2.7.3.1 The applicant shall hold a pilot licence for the aircraft category being sought.

2.7.3.2 The applicant shall have completed not less than:

- a) 50 hours of cross-country flight time as pilot-in-command of aircraft in categories acceptable to the Licensing Authority, of which not less than 10 hours shall be in the aircraft category being sought; and
- b) 40 hours of instrument time in aircraft of which not more than 20 hours, or 30 hours where a flight simulator is used, may be instrument ground time. The ground time shall be under the supervision of an authorized instructor.

2.7.4 Flight instruction

2.7.4.1 The applicant shall have gained not less than 10 hours of the instrument flight time required in 2.7.3.2 b) while receiving dual instrument flight instruction in the aircraft category being sought, from an authorized flight instructor. The instructor shall ensure that the applicant has operational experience in at least the following areas to the level of performance required for the holder of an instrument rating:

- a) pre-flight procedures, including the use of the flight manual or equivalent document, and appropriate air traffic services documents in the preparation of an IFR flight plan;
- b) pre-flight inspection, use of checklists, taxiing and pre take-off checks;
- c) procedures and manoeuvres for IFR operation under normal, abnormal and emergency conditions covering at least:
  - transition to instrument flight on take-off;
  - standard instrument departures and arrivals;
  - en-route IFR procedures;
  - holding procedures;
  - instrument approaches to specified minima;
  - missed approach procedures;
  - landings from instrument approaches;
- d) in-flight manoeuvres and particular flight characteristics.

2.7.4.2 If the privileges of the instrument rating are to be exercised on multi-engined aircraft, the applicant shall have received dual instrument flight instruction in a multi-engined aircraft within the appropriate category from an authorized flight instructor. The instructor shall ensure that the applicant has operational experience in the operation of the aircraft within the appropriate category by reference solely to instruments with one engine inoperative or simulated inoperative.

## 2.8 Flight instructor rating appropriate to aeroplanes, airships, helicopters and powered-lifts

2.8.1 Requirements for the issue of the rating

#### 2.8.1.1 Knowledge

The applicant shall have met the knowledge requirements for the issue of a commercial pilot licence as appropriate to the category of aircraft included in the licence. In addition, the applicant shall have demonstrated a level of knowledge appropriate to the privileges granted to the holder of a flight instructor rating, in at least the following areas:

- a) techniques of applied instruction;
- b) assessment of student performance in those subjects in which ground instruction is given;
- c) the learning process;
- d) elements of effective teaching;
- e) student evaluation and testing, training philosophies;
- f) training programme development;
- g) lesson planning;
- h) classroom instructional techniques;
- i) use of training aids, including flight simulation training devices as appropriate;
- j) analysis and correction of student errors;
- k) human performance relevant to flight instruction including principles of threat and error management;

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

- l) hazards involved in simulating system failures and malfunctions in the aircraft.

#### 2.8.1.2 Skill

The applicant shall have demonstrated, in the category and class of aircraft for which flight instructor privileges are sought, the ability to instruct in those areas in which flight instruction is to be given, including pre-flight, post-flight and ground instruction as appropriate.

#### 2.8.1.3 Experience

The applicant shall have met the experience requirements for the issue of a commercial pilot licence as specified in 2.4.3.1, 2.4.4.1, 2.4.5.1 and 2.4.6.1 for each aircraft category, as appropriate.

#### 2.8.1.4 Flight instruction

The applicant shall, under the supervision of a flight instructor accepted by CAD for that purpose:

- a) have received instruction in flight instructional techniques including demonstration, student practices, recognition and correction of common student errors; and
- b) have practised instructional techniques in those flight manoeuvres and procedures in which it is intended to provide flight instruction.

### 2.8.2 Privileges of the holder of the rating and the conditions to be observed in exercising such privileges

2.8.2.1 Subject to compliance with the requirements specified in 1.2.5 and 2.1, the privileges of the holder of a flight instructor rating shall be:

- a) to supervise solo flights by student pilots; and
- b) to carry out flight instruction for the issue of a private pilot licence, a commercial pilot licence, an instrument rating, and a flight instructor rating provided that the flight instructor:
  - 1) holds at least the licence and rating for which instruction is being given, in the appropriate aircraft category;
  - 2) holds the licence and rating necessary to act as the pilot-in-command of the aircraft on which the instruction is given; and
  - 3) has the flight instructor privileges granted entered on the licence.

2.8.2.2 The applicant, in order to carry out instruction for the multi-crew pilot licence, shall have also met all the instructor qualification requirements.

*Note.* Specific provisions for flight instructors carrying out instruction for the multi-crew pilot licence exist in Chapter 4 of the Procedures for Air Navigation Services — Training (PANS-TRG, Doc 9868).

## 2.9 Glider pilot licence

2.9.1 Requirements for the issue of the licence

2.9.1.1 *Age*

The applicant shall be not less than 16 years of age.

2.9.1.2 *Knowledge*

2.9.1.2.1 The applicant shall have demonstrated a level of knowledge appropriate to the privileges granted to the holder of a glider pilot licence, in at least the following subjects:

*Air law*

- a) rules and regulations relevant to the holder of a glider pilot licence; rules of the air; appropriate air traffic services practices and procedures;

*Aircraft general knowledge*

- b) principles of operation of glider systems and instruments;  
c) operating limitations of gliders; relevant operational information from the flight manual or other appropriate document;

*Flight performance, planning and loading*

- d) effects of loading and mass distribution on flight characteristics; mass and balance considerations;  
e) use and practical application of launching, landing and other performance data;  
f) pre-flight and en-route flight planning appropriate to operations under VFR; appropriate air traffic services procedures; altimeter setting procedures; operations in areas of high-density traffic;

*Human performance*

- g) human performance relevant to the glider pilot including principles of threat and error management;

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

*Meteorology*

- h) application of elementary aeronautical meteorology; use of, and procedures for obtaining, meteorological information; altimetry;

*Navigation*

- i) practical aspects of air navigation and dead-reckoning techniques; use of aeronautical charts;

*Operational procedures*

- j) use of aeronautical documentation such as AIP, NOTAM, aeronautical codes and abbreviations;  
k) different launch methods and associated procedures;  
l) appropriate precautionary and emergency procedures, including action to be taken to avoid hazardous weather, wake turbulence and other operating hazards;

*Principles of flight*

- m) principles of flight relating to gliders.

2.9.1.2.2 The applicant shall have demonstrated a level of knowledge appropriate to the privileges to be granted to the holder of a glider pilot licence, in communication procedures and phraseology as appropriate to VFR operations and on action to be taken in case of communication failure.

2.9.1.3 *Experience*

2.9.1.3.1 The applicant shall have completed not less than six hours of flight time as a pilot of gliders including two hours of solo flight time during which not less than 20 launches and landings have been performed.

2.9.1.3.1.1 When the applicant has flight time as a pilot of aeroplanes, the Licensing Authority shall determine whether such experience is acceptable and, if so, the extent to which the flight time requirements of 2.9.1.3.1 can be reduced accordingly.

2.9.1.3.2 The applicant shall have gained, under appropriate supervision, operational experience in gliders in at least the following areas:

- a) pre-flight operations, including glider assembly and inspection;
- b) techniques and procedures for the launching method used, including appropriate airspeed limitations, emergency procedures and signals used;
- c) traffic pattern operations, collision avoidance precautions and procedures;
- d) control of the glider by external visual reference;
- e) flight throughout the flight envelope;
- f) recognition of, and recovery from, incipient and full stalls and spiral dives;
- g) normal and crosswind launches, approaches and landings;
- h) cross-country flying using visual reference and dead reckoning;
- i) emergency procedures.

#### 2.9.1.4 *Skill*

The applicant shall have demonstrated the ability to perform as pilot-in-command of a glider, the procedures and manoeuvres described in 2.9.1.3.2 with a degree of competency appropriate to the privileges granted to the holder of a glider pilot licence, and to:

- a) recognize and manage threats and errors;

*Note.* *Guidance material on the application of threat and error management is found in the Procedures for Air Navigation Services — Training (PANS-TRG, Doc 9868), Chapter 3, Attachment C, and in Part II, Chapter 2, of the Human Factors Training Manual (Doc 9683).*

- b) operate the glider within its limitations;
- c) complete all manoeuvres with smoothness and accuracy;
- d) exercise good judgment and airmanship;
- e) apply aeronautical knowledge; and
- f) maintain control of the glider at all times in a manner such that the successful outcome of a procedure or manoeuvre is assured.

#### 2.9.1.5 *Medical fitness*

The applicant shall hold a current Class 2 Medical Assessment.

2.9.2 Privileges of the holder of the licence and the conditions to be observed in exercising such privileges

2.9.2.1 Subject to compliance with the requirements specified in 1.2.5, 1.2.6, 1.2.7.1 and 2.1, the privileges of the holder of a glider pilot licence shall be to act as pilot-in-command of any glider provided the licence holder has operational experience in the launching method used.

2.9.2.2 If passengers are to be carried, the licence holder shall have completed not less than 10 hours of flight time as a pilot of gliders.

## 2.10 Free balloon pilot licence

*Note.* *The provisions of the free balloon pilot licence apply to free balloons using hot air or gas.*

2.10.1 Requirements for the issue of the licence

#### 2.10.1.1 *Age*

The applicant shall be not less than 16 years of age.

#### 2.10.1.2 *Knowledge*



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

*Air law*

- a) rules and regulations relevant to the holder of a free balloon pilot licence; rules of the air; appropriate air traffic services practices and procedures;

*Aircraft general knowledge*

- b) principles of operation of free balloon systems and instruments;  
c) operating limitations of free balloons; relevant operational information from the flight manual or other appropriate document;  
d) physical properties and practical application of gases used in free balloons;

*Flight performance, planning and loading*

- e) effects of loading on flight characteristics; mass calculations;  
f) use and practical application of launching, landing and other performance data, including the effect of temperature;  
g) pre-flight and en-route flight planning appropriate to operations under VFR; appropriate air traffic services procedures; altimeter setting procedures; operations in areas of high-density traffic;

*Human performance*

- h) human performance relevant to the free balloon pilot including principles of threat and error management;

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

*Meteorology*

- i) application of elementary aeronautical meteorology; use of, and procedures for obtaining, meteorological information; altimetry;

*Navigation*

- j) practical aspects of air navigation and dead-reckoning techniques; use of aeronautical charts;

*Operational procedures*

- k) use of aeronautical documentation such as AIP, NOTAM, aeronautical codes and abbreviations;  
l) appropriate precautionary and emergency procedures, including action to be taken to avoid hazardous weather, wake turbulence and other operating hazards;

*Principles of flight*

- m) principles of flight relating to free balloons.

2.10.1.2.2 The applicant shall have demonstrated a level of knowledge appropriate to the privileges to be granted to the holder of a free balloon pilot licence, in communication procedures and phraseology as appropriate to VFR operations and on action to be taken in case of communication failure.

2.10.1.3 *Experience*

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

2.10.1.3.2 The applicant shall have gained, under appropriate supervision, operational experience in free balloons in at least the following areas:

- a) pre-flight operations, including balloon assembly, rigging, inflation, mooring and inspection;  
b) techniques and procedures for the launching and ascent, including appropriate limitations, emergency procedures and signals used;  
c) collision avoidance precautions;

- d) control of the free balloon by external visual reference;
- e) recognition of, and recovery from, rapid descents;
- f) cross-country flying using visual reference and dead reckoning;
- g) approaches and landings, including ground handling;
- h) emergency procedures.

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

2.10.1.3.4 If passengers are to be carried for remuneration or hire, the licence holder shall have completed not less than 35 hours of flight time including 20 hours as a pilot of a free balloon.

2.10.1.4 *Skill*

The applicant shall have demonstrated the ability to perform as pilot-in-command of a free balloon, the procedures and manoeuvres described in 2.10.1.3.2 with a degree of competency appropriate to the privileges granted to the holder of a free balloon pilot licence, and to:

- a) recognize and manage threats and errors;

*Note.* Guidance material on the application of threat and error management is found in the Procedures for Air Navigation Services — Training (PANS-TRG, Doc 9868), Chapter 3, Attachment C, and in Part II, Chapter 2, of the Human Factors Training Manual (Doc 9683).

- b) operate the free balloon within its limitations;
- c) complete all manoeuvres with smoothness and accuracy;
- d) exercise good judgement and airmanship;
- e) apply aeronautical knowledge; and
- f) maintain control of the free balloon at all times in a manner such that the successful outcome of a procedure or manoeuvre is assured.

2.10.1.5 *Medical fitness*

The applicant shall hold a current Class 2 Medical Assessment.

2.10.2 Privileges of the holder of the licence and the conditions to be observed in exercising such privileges

2.10.2.1 Subject to compliance with the requirements specified in 1.2.5, 1.2.6, 1.2.7.1, 2.1 and 2.10.1.3.4, the privileges of the holder of a free balloon pilot licence shall be to act as pilot-in-command of any free balloon provided that the licence holder has operational experience in hot air or gas balloons as appropriate.

2.10.2.2 Before exercising the privileges at night, the licence holder shall have complied with the requirements specified in 2.10.1.3.3.

## CHAPTER 3 LICENSING OF CREW MEMBERS OTHER THAN LICENCES FOR PILOTS

### 3.1 General rules concerning flight navigator and flight engineer licences

3.1.1 An applicant shall, before being issued with a flight navigator licence or a flight engineer licence, meet such requirements in respect of age, knowledge, experience, skill and medical fitness as are specified for those licences.

3.1.1.1 An applicant for a flight navigator licence or a flight engineer licence shall demonstrate such requirements for knowledge and skill as are specified for those licences, in a manner determined CAD.

### 3.2 Flight navigator licence

3.2.1 Requirements for the issue of the licence

#### 3.2.1.1 Age

The applicant shall be not less than 18 years of age.

#### 3.2.1.2 Knowledge

The applicant shall have demonstrated a level of knowledge appropriate to the privileges granted to the holder of a flight navigator licence, in at least the following subjects:

##### *Air law*

a) rules and regulations relevant to the holder of a flight navigator licence; appropriate air traffic services practices and procedures;

##### *Flight performance, planning and loading*

b) effects of loading and mass distribution on aircraft performance;  
c) use of take-off, landing and other performance data including procedures for cruise control;  
d) pre-flight and en-route operational flight planning; preparation and filing of air traffic services flightplans; appropriate air traffic services procedures; altimeter setting procedures;

##### *Human performance*

e) human performance relevant to the flight navigator including principles of threat and error management;

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

##### *Meteorology*

f) interpretation and practical application of aeronautical meteorological reports, charts and forecasts; codes and abbreviations; use of, and procedures for obtaining, meteorological information, pre-flight and in-flight; altimetry;  
g) aeronautical meteorology; climatology of relevant areas in respect of the elements having an effect upon aviation; the movement of pressure systems; the structure of fronts, and the origin and characteristics of significant weather phenomena which affect take-off, en-route and landing conditions;

##### *Navigation*

h) dead-reckoning, pressure-pattern and celestial navigation procedures; the use of aeronautical charts, radio navigation aids and area navigation systems; specific navigation requirements for long-range flights;  
i) use, limitation and serviceability of avionics and instruments necessary for the navigation of the aircraft;  
j) use, accuracy and reliability of navigation systems used in departure, en-route and approach phases of flight; identification of radio navigation aids;

- k) principles, characteristics and use of self-contained and external-referenced navigation systems; operation of airborne equipment;
- l) the celestial sphere including the movement of heavenly bodies and their selection and identification for the purpose of observation and reduction of sights; calibration of sextants; the completion of navigation documentation;
- m) definitions, units and formulae used in air navigation;

*Operational procedures*

- n) interpretation and use of aeronautical documentation such as AIP, NOTAM, aeronautical codes, abbreviations, and instrument procedure charts for departure, en-route, descent and approach;

*Principles of flight*

- o) principles of flight;

*Radiotelephony*

- p) communication procedures and phraseology.

3.2.1.3 *Experience*

3.2.1.3.1 The applicant shall have completed in the performance of the duties of a flight navigator, not less than 200 hours of flight time acceptable to CAD, in aircraft engaged in cross-country flights, including not less than 30 hours by night.

3.2.1.3.1.1 When the applicant has flight time as a pilot, CAD will determine whether such experience is acceptable and, if so, the extent to which the flight time requirements of 3.2.1.3.1 can be reduced accordingly.

3.2.1.3.2 The applicant shall produce evidence of having satisfactorily determined the aircraft's position in flight, and used that information to navigate the aircraft, as follows:

- a) by night — not less than 25 times by celestial observations; and
- b) by day — not less than 25 times by celestial observations in conjunction with self-contained or external-referenced navigation systems.

3.2.1.4 *Skill*

The applicant shall have demonstrated the ability to perform as flight navigator of an aircraft with a degree of competency appropriate to the privileges granted to the holder of a flight navigator licence, and to:

- a) recognize and manage threats and errors;

**Note.** *Guidance material on the application of threat and error management is found in the Procedures for Air Navigation Services — Training (PANS-TRG, Doc 9868), Chapter 3, Attachment C, and in Part II, Chapter 2, of the Human Factors Training Manual (Doc 9683).*

- b) exercise good judgement and airmanship;
- c) apply aeronautical knowledge;
- d) perform all duties as part of an integrated crew; and
- e) communicate effectively with the other flight crew members.

3.2.1.5 *Medical fitness*

The applicant shall hold a current Class 2 Medical Assessment.

3.2.2 Privileges of the holder of the licence and the conditions to be observed in exercising such privileges  
Subject to compliance with the requirements specified in 1.2.5, 1.2.6 and 1.2.7.1, the privileges of the holder of a flight navigator licence shall be to act as flight navigator of any aircraft. If the privileges include radiotelephony communication, the licence holder shall comply with the requirements specified in 1.2.9.2.

**3.3 Flight engineer licence**

3.3.1 Requirements for the issue of the licence

3.3.1.1 *Age*

The applicant shall be not less than 18 years of age.

3.3.1.2 *Knowledge*

3.3.1.2.1 The applicant shall have demonstrated a level of knowledge appropriate to the privileges granted to the holder of a flight engineer licence, in at least the following subjects:

*Air law*

- a) rules and regulations relevant to the holder of a flight engineer licence; rules and regulations governing the operation of civil aircraft pertinent to the duties of a flight engineer;

*Aircraft general knowledge*

- b) basic principles of powerplants, gas turbines and/or piston engines; characteristics of fuels, fuel systems including fuel control; lubricants and lubrication systems; afterburners and injection systems, function and operation of engine ignition and starter systems;
- c) principles of operation, handling procedures and operating limitations of aircraft powerplants; effects of atmospheric conditions on engine performance;
- d) airframes, flight controls, structures, wheel assemblies, brakes and anti-skid units, corrosion and fatigue life; identification of structural damage and defects;
- e) ice and rain protection systems;
- f) pressurization and air-conditioning systems, oxygen systems;
- g) hydraulic and pneumatic systems;
- h) basic electrical theory, electric systems (AC and DC), aircraft wiring systems, bonding and screening;
- i) principles of operation of instruments, compasses, autopilots, radio communication equipment, radio and radar navigation aids, flight management systems, displays and avionics;
- j) limitations of appropriate aircraft;
- k) fire protection, detection, suppression and extinguishing systems;
- l) use and serviceability checks of equipment and systems of appropriate aircraft;

*Flight performance, planning and loading*

- m) effects of loading and mass distribution on aircraft handling, flight characteristics and performance; mass and balance calculations;
- n) use and practical application of performance data including procedures for cruise control;

*Human performance*

- o) human performance relevant to the flight engineer including principles of threat and error management;

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

*Operational procedures*

- p) principles of maintenance, procedures for the maintenance of airworthiness, defect reporting, pre-flight inspections, precautionary procedures for fuelling and use of external power; installed equipment and cabin systems;
- q) normal, abnormal and emergency procedures;
- r) operational procedures for carriage of freight and dangerous goods;

*Principles of flight*

- s) fundamentals of aerodynamics;

*Radiotelephony*

- t) communication procedures and phraseology.

3.3.1.2.2 The applicant should have demonstrated a level of knowledge appropriate to the privileges granted to the holder of a flight engineer licence in at least the following subjects:

- a) fundamentals of navigation; principles and operation of self-contained systems; and
- b) operational aspects of meteorology.

#### 3.3.1.3 *Experience*

3.3.1.3.1 The applicant shall have completed, under the supervision of a person accepted by CAD for that purpose, not less than 100 hours of flight time in the performance of the duties of a flight engineer. CAD will determine whether experience as a flight engineer in a flight simulator, which it has approved, is acceptable as part of the total flight time of 100 hours. Credit for such experience will be limited to a maximum of 50 hours.

3.3.1.3.1.1 When the applicant has flight time as a pilot, CAD will determine whether such experience is acceptable and, if so, the extent to which the flight time requirements of 3.3.1.3.1 can be reduced accordingly.

3.3.1.3.2 The applicant shall have operational experience in the performance of the duties of a flight engineer, under the supervision of a flight engineer accepted by CAD for that purpose, in at least the following areas:

- a) *Normal procedures*
  - pre-flight inspections
  - fuelling procedures, fuel management
  - inspection of maintenance documents
  - normal flight deck procedures during all phases of flight
  - crew coordination and procedures in case of crew incapacitation
  - defect reporting
- b) *Abnormal and alternate (standby) procedures*
  - recognition of abnormal functioning of aircraft systems
  - use of abnormal and alternate (standby) procedures
- c) *Emergency procedures*
  - recognition of emergency conditions
  - use of appropriate emergency procedures

#### 3.3.1.4 *Skill*

3.3.1.4.1 The applicant shall have demonstrated the ability to perform as flight engineer of an aircraft, the duties and procedures described in 3.3.1.3.2 with a degree of competency appropriate to the privileges granted to the holder of a flight engineer licence, and to:

- a) recognize and manage threats and errors;

**Note.** *Guidance material on the application of threat and error management is found in the Procedures for Air Navigation Services — Training (PANS-TRG, Doc 9868), Chapter 3, Attachment C, and in Part II, Chapter 2, of the Human Factors Training Manual (Doc 9683).*

- b) use aircraft systems within the aircraft's capabilities and limitations;
- c) exercise good judgement and airmanship;
- d) apply aeronautical knowledge;
- e) perform all the duties as part of an integrated crew with the successful outcome assured; and
- f) communicate effectively with the other flight crew members.

3.3.1.4.2 The use of a flight simulation training device for performing any of the procedures required during the demonstration of skill described in 3.3.1.4.1 will be approved by CAD, which shall ensure that the flight simulation training device is appropriate to the task.

#### 3.3.1.5 *Medical fitness*

The applicant shall hold a current Class 2 Medical Assessment.

3.3.2 Privileges of the holder of the licence and the conditions to be observed in exercising such privileges

3.3.2.1 Subject to compliance with the requirements specified in 1.2.5, 1.2.6 and 1.2.7.1, the privileges of the holder of a flight engineer licence shall be to act as flight engineer of any type of aircraft on which the holder has demonstrated a level of knowledge and skill, as determined by CAD on the basis of those requirements specified in 3.3.1.2 and 3.3.1.4 which are applicable to the safe operation of that type of aircraft.

3.3.2.2 The types of aircraft on which the holder of a flight engineer licence is authorized to exercise the privileges of that licence, shall be either entered on the licence or recorded elsewhere in a manner acceptable to CAD.

### **3.4 Flight radiotelephone operator**

An applicant having attained an aeroplane, airship, helicopter or powered-lift pilot licences will deem to have attained a flight radio operator licence. No endorsements are required on the above categories of licences to exercise the privileges of flight radio telephone operator

*Note Skill and knowledge requirements on radiotelephony procedures and phraseology have been developed as an integral part of all aeroplane, airship, helicopter and powered-lift pilot licences*

## CHAPTER 4 LICENCES AND RATINGS FOR PERSONNEL OTHER THAN FLIGHT CREW MEMBERS

### 4.1 General rules concerning licences and ratings for personnel other than flight crew members

4.1.1 An applicant shall, before being issued with any licence or rating for personnel other than flight crew members, meet such requirements in respect of age, knowledge, experience and where appropriate, medical fitness and skill, as are specified for that licence or rating.

4.1.2 An applicant, for any licence or rating for personnel other than flight crew members, shall demonstrate, in a manner determined by CAD, such requirements in respect of knowledge and skill as are specified for that licence or rating.

### 4.2 Aircraft maintenance (technician/engineer/mechanic)

Aircraft maintenance (technician/engineer/mechanic) licensing will be in accordance with MCAR 66.

### 4.3 Air traffic controller licence

4.3.1 Requirements for the issue of the licence

Before issuing an air traffic controller licence, CAD will require the applicant to meet the requirements of 4.3.1 and the requirements of at least one of the ratings set out in 4.4. Unlicensed controllers may operate as air traffic controllers, under the supervision of a licensed air traffic controller, on condition that they meet the same requirements and under such requirements that may be specified.

4.3.1.1 *Age*

The applicant shall be not less than 21 years of age.

4.3.1.2 *Knowledge*

The applicant shall have demonstrated a level of knowledge appropriate to the holder of an air traffic controller licence, in at least the following subjects:

*Air law*

a) rules and regulations relevant to the air traffic controller;

*Air traffic control equipment*

b) principles, use and limitations of equipment used in air traffic control;

*General knowledge*

c) principles of flight; principles of operation and functioning of aircraft, powerplants and systems; aircraft performance relevant to air traffic control operations;

*Human performance*

d) human performance relevant to air traffic control;

*Note.* Guidance material to design training programmes on human performance can be found in the Human Factors Training Manual (Doc 9683).



*Meteorology*

- e) aeronautical meteorology; use and appreciation of meteorological documentation and information; origin and characteristics of weather phenomena affecting flight operations and safety; altimetry;

*Navigation*

- f) principles of air navigation; principle, limitation and accuracy of navigation systems and visual aids; and

*Operational procedures*

- g) air traffic control, communication, radiotelephony and phraseology procedures (routine, non-routine and emergency); use of the relevant aeronautical documentation; safety practices associated with flight.

4.3.1.3 *Experience*

The applicant shall have completed an approved training course and not less than three months of satisfactory service engaged in the actual control of air traffic under the supervision of an appropriately rated air traffic controller. The experience requirements specified for air traffic controller ratings in 4.4 may be credited as part of the experience specified in this paragraph.

4.3.1.4 *Medical fitness*

The applicant shall hold a current Class 3 Medical Assessment.

**4.4 Air traffic controller ratings**

4.4.1 Categories of air traffic controller ratings

Air traffic controller ratings shall comprise the following categories:

- a) aerodrome control rating;
- b) approach control rating;
- c) approach radar control rating;
- d) approach precision radar control rating;
- e) area control rating; and
- f) area radar control rating.

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

4.4.2 Requirements for air traffic controller ratings

4.4.2.1 *Knowledge*

The applicant shall have demonstrated a level of knowledge appropriate to the privileges granted, in at least the following subjects in so far as they affect the area of responsibility:

- a) *aerodrome control rating:*
  - 1) aerodrome layout; physical characteristics and visual aids;
  - 2) airspace structure;
  - 3) applicable rules, procedures and source of information;
  - 4) air navigation facilities;
  - 5) air traffic control equipment and its use;
  - 6) terrain and prominent landmarks;
  - 7) characteristics of air traffic;
  - 8) weather phenomena; and

- 9) emergency and search and rescue plans;
- b) *approach control and area control ratings:*
  - 1) airspace structure;
  - 2) applicable rules, procedures and source of information;
  - 3) air navigation facilities;
  - 4) air traffic control equipment and its use;
  - 5) terrain and prominent landmarks;
  - 6) characteristics of air traffic and traffic flow;
  - 7) weather phenomena; and
  - 8) emergency and search and rescue plans; and
- c) *approach radar, approach precision radar and area radar control ratings:* The applicant shall meet the requirements specified in b) in so far as they affect the area of responsibility, and shall have demonstrated a level of knowledge appropriate to the privileges granted, in at least the following additional subjects:
  - 1) principles, use and limitations of radar, other surveillance systems and associated equipment; and
  - 2) procedures for the provision of approach, precision approach or area radar control services, as appropriate, including procedures to ensure appropriate terrain clearance.

#### 4.4.2.2 Experience

4.4.2.2.1 The applicant shall have:

- a) satisfactorily completed an approved training course;
- b) provided, satisfactorily, under the supervision of an appropriately rated air traffic controller:
  - 1) *aerodrome control rating:* an aerodrome control service, for a period of not less than 90 hours or one month, whichever is greater, at the unit for which the rating is sought;
  - 2) *approach, approach radar, area or area radar control rating:* the control service for which the rating is sought, for a period of not less than 180 hours or three months, whichever is greater, at the unit for which the rating is sought; and
  - 3) *approach precision radar control rating:* not less than 200 precision approaches of which not more than 100 shall have been carried out on a radar simulator approved for that purpose by CAD. Not less than 50 of those precision approaches shall have been carried out at the unit and on the equipment for which the rating is sought; and
- c) if the privileges of the approach radar control rating include surveillance radar approach duties, the experience shall include not less than 25 plan position indicator (PPI) approaches on the surveillance equipment of the type in use at the unit for which the rating is sought and under the supervision of an appropriately rated approach radar controller.

4.4.2.2.2 The experience specified in 4.4.2.2.1 b) shall have been completed within the 6-month period immediately preceding application.

4.4.2.2.3 When the applicant already holds an air traffic controller rating in another category, or the same rating for another unit, CAD will determine whether the experience requirement of 4.4.2.2 can be reduced, and if so, to what extent.

#### 4.4.2.3 Skill

The applicant shall have demonstrated, at a level appropriate to the privileges being granted, the skill, judgement and performance required to provide a safe, orderly and expeditious control service.

#### 4.4.2.4 Concurrent issuance of two air traffic controller ratings

When two air traffic controller ratings are sought concurrently, CAD will determine the applicable requirements on the basis of the requirements for each rating. These requirements will not be less than those of the more demanding rating.

4.4.3 Privileges of the holder of the air traffic controller rating(s) and the conditions to be observed in exercising such privileges

4.4.3.1 Subject to compliance with the requirements specified in 1.2.5, 1.2.6, 1.2.7.1 and 1.2.9, the privileges of the holder of an air traffic controller licence endorsed with one or more of the under mentioned ratings shall be:

- a) *aerodrome control rating*: to provide or to supervise the provision of aerodrome control service for the aerodrome for which the licence holder is rated;
- b) *approach control rating*: to provide or to supervise the provision of approach control service for the aerodrome or aerodromes for which the licence holder is rated, within the airspace or portion thereof, under the jurisdiction of the unit providing approach control service;
- c) *approach radar control rating*: to provide and/or supervise the provision of approach control service with the use of radar or other surveillance systems for the aerodrome or aerodromes for which the licence holder is rated, within the airspace or portion thereof, under the jurisdiction of the unit providing approach control service;
  - 1) subject to compliance with the provisions of 4.4.2.2.1 c), the privileges shall include the provision of surveillance radar approaches;
- d) *approach precision radar control rating*: to provide and/or supervise the provision of precision approach radar service at the aerodrome for which the licence holder is rated;
- e) *area control rating*: to provide and/or supervise the provision of area control service within the control area or portion thereof, for which the licence holder is rated; and
- f) *area radar control rating*: to provide and/or supervise the provision of area control service with the use of radar, within the control area or portion thereof, for which the licence holder is rated.

4.4.3.2 Before exercising the privileges indicated in 4.4.3.1, the licence holder shall be familiar with all pertinent and current information.

4.4.3.3 CAD having issued an air traffic controller licence will not permit the holder thereof to carry out instruction in an operational environment unless such holder has received proper authorization from CAD.

4.4.3.4 *Validity of ratings*

A rating shall become invalid when an air traffic controller has ceased to exercise the privileges of the rating for a period not exceeding six months. A rating shall remain invalid until the controller's ability to exercise the privileges of the rating has been re-established.

## **4.5 Flight operations officer/flight dispatcher licence**

4.5.1 Requirements for the issue of the licence

4.5.1.1 *Age*

The applicant shall be not less than 21 years of age.

4.5.1.2 *Knowledge*

The applicant shall have demonstrated a level of knowledge appropriate to the privileges granted to the holder of a flight operations officer licence, in at least the following subjects:

*Air law*

- a) rules and regulations relevant to the holder of a flight operations officer licence; appropriate air traffic services practices and procedures;

*Aircraft general knowledge*

- b) principles of operation of aeroplane powerplants, systems and instruments;
- c) operating limitations of aeroplanes and powerplants;
- d) minimum equipment list;

*Flight performance calculation, planning procedures and loading*

- e) effects of loading and mass distribution on aircraft performance and flight characteristics; mass and balance calculations;
- f) operational flight planning; fuel consumption and endurance calculations; alternate aerodrome selection procedures; en-route cruise control; extended range operation;
- g) preparation and filing of air traffic services flight plans;
- h) basic principles of computer-assisted planning systems;

*Human performance*

- i) human performance relevant to dispatch duties;

**Note.** *Guidance material to design training programmes on human performance can be found in the Human Factors Training Manual (Doc 9683).*

*Meteorology*

- j) aeronautical meteorology; the movement of pressure systems; the structure of fronts, and the origin and characteristics of significant weather phenomena which affect take-off, en-route and landing conditions;
- k) interpretation and application of aeronautical meteorological reports, charts and forecasts; codes and abbreviations; use of, and procedures for obtaining, meteorological information;

*Navigation*

- l) principles of air navigation with particular reference to instrument flight;

*Operational procedures*

- m) use of aeronautical documentation;
- n) operational procedures for the carriage of freight and dangerous goods;
- o) procedures relating to aircraft accidents and incidents; emergency flight procedures;
- p) procedures relating to unlawful interference and sabotage of aircraft;

*Principles of flight*

- q) principles of flight relating to the appropriate category of aircraft; and

*Radio communication*

- r) procedures for communicating with aircraft and relevant ground stations.

4.5.1.3 *Experience*

4.5.1.3.1 The applicant shall have gained the following experience:

- a) a total of two years of service in any one or in any combination of the capacities specified in 1) to 3) inclusive, provided that in any combination of experience the period serviced in any capacity shall be at least one year:
  - 1) a flight crew member in air transportation; or
  - 2) a meteorologist in an organization dispatching aircraft in air transportation; or
  - 3) an air traffic controller; or a technical supervisor of flight operations officers or air transportation flight operations systems; *or*
- b) at least one year as an assistant in the dispatching of air transport; *or*

- c) have satisfactorily completed a course of approved training.

4.5.1.3.2 The applicant shall have served under the supervision of a flight operations officer for at least 90 working days within the six months immediately preceding the application.

#### 4.5.1.4 Skill

The applicant shall have demonstrated the ability to:

- a) make an accurate and operationally acceptable weather analysis from a series of daily weather maps and weather reports; provide an operationally valid briefing on weather conditions prevailing in the general neighbourhood of a specific air route; forecast weather trends pertinent to air transportation with particular reference to destination and alternates;
- b) determine the optimum flight path for a given segment, and create accurate manual and/or computer generated flight plans; and
- c) provide operating supervision and all other assistance to a flight in actual or simulated adverse weather conditions, as appropriate to the duties of the holder of a flight operations officer licence.

#### 4.5.2 Privileges of the holder of the licence and the condition to be observed in exercising such privileges

Subject to compliance with the requirements specified in 1.2.5, the privileges of the holder of a flight operations officer licence shall be to serve in that capacity with responsibility for each area for which the applicant meets the requirements specified in Annex 6.

### 4.6 Aeronautical station operator licence

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

#### 4.6.1 Requirements for the issue of the licence

4.6.1.1 Before issuing an aeronautical station operator licence, CAD will require the applicant to meet the requirements of 4.6.1. Unlicensed individuals may operate as aeronautical station operators, under the supervision of a licensed aeronautical station operator, on the condition that they meet the same requirements and under such requirements that may be specified.

#### 4.6.1.2 Age

The applicant shall be not less than 18 years of age.

#### 4.6.1.3 Knowledge

The applicant shall have demonstrated a level of knowledge appropriate to the holder of an aeronautical station operator, in at least the following subjects:

##### *General knowledge*

- a) air traffic services provided within the State;

##### *Operational procedures*

- b) radiotelephony procedures; phraseology; telecommunication network;

##### *Rules and regulations*

- c) rules and regulations applicable to the aeronautical station operator; and

*Telecommunication equipment*

- d) principles, use and limitations of telecommunication equipment in an aeronautical station.

4.6.1.4 *Experience*

The applicant shall have:

- a) satisfactorily completed an approved training course within the 12-month period immediately preceding application, and have served satisfactorily under a qualified aeronautical station operator for not less than two months; or
- b) satisfactorily served under a qualified aeronautical station operator for not less than six months during the 12-month period immediately preceding application.

4.6.1.5 *Skill*

The applicant shall demonstrate, or have demonstrated, competency in:

- a) operating the telecommunication equipment in use; and
- b) transmitting and receiving radiotelephony messages with efficiency and accuracy.

4.6.2 Privileges of the aeronautical station operator and the conditions to be observed in exercising such privileges

Subject to compliance with the requirements specified in 1.2.5 and 1.2.9, the privileges of the holder of an aeronautical station operator licence shall be to act as an operator in an aeronautical station. Before exercising the privileges of the licence, the holder shall be familiar with all pertinent and current information regarding the types of equipment and operating procedures used at that aeronautical station.

**4.7 Aeronautical meteorological personnel**

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

---

## CHAPTER 5 SPECIFICATIONS FOR PERSONNEL LICENCES

5.1 Personnel licences issued by CAD in accordance with the relevant provisions of this Manual will conform to the following specifications:

5.1.1 Detail

5.1.1.1 CAD having issued a licence will ensure that other States are able to easily determine the licence privileges and validity of ratings.

*Note.* Operator records or a flight crew member's personal log book, in which maintenance of competency and recent experience may be satisfactorily recorded, are not normally carried on international flights.

5.1.1.2 The following details will appear on the licence:

- I) Name of State (in bold type);
- II) Title of licence (in very bold type);
- III) Serial number of the licence, in Arabic numerals, given by the authority issuing the licence;
- IV) Name of holder in full (in Roman alphabet also if script of national language is other than Roman);
- IVa) Date of birth;
- V) Address of holder;
- VI) Nationality of holder;
- VII) Signature of holder;
- VIII) Authority and, where necessary, conditions under which the licence is issued;
- IX) Certification concerning validity and authorization for holder to exercise privileges appropriate to licence;
- X) Signature of officer issuing the licence and the date of such issue;
- XI) Seal or stamp of authority issuing the licence;
- XII) Ratings, e.g. category, class, type of aircraft, airframe, aerodrome control, etc.;
- XIII) Remarks, i.e. special endorsements relating to limitations and endorsements for privileges, including from 5 March 2008 an endorsement of language proficiency, and other information required in pursuance to Article 39 of the Chicago Convention;
- XIV) Any other details.

5.1.2 Material

First quality paper or other suitable material, including plastic cards, will be used and the items mentioned in 5.1.1.2 shown clearly thereon.

5.1.3 Language

All licences and authorizations will be written in English.

5.1.4 Arrangement of items.

Item headings on the licence will be uniformly numbered in roman numerals as indicated in 5.1.1, so that on any licence the number will, under any arrangement, refer to the same item heading.

## CHAPTER 6 MEDICAL PROVISIONS FOR LICENSING

- Note1.** *The Standards established in this chapter cannot, on their own, be sufficiently detailed to cover all possible individual situations. Of necessity, many decisions relating to the evaluation of medical fitness is left to the judgement of the individual medical examiner. The evaluation must, therefore, be based on a medical examination conducted throughout in accordance with the highest standards of medical practice.*
- Note2.** *Predisposing factors for disease, such as obesity and smoking, may be important for determining whether further evaluation or investigation is necessary in an individual case.*
- Note3.** *In cases where the applicant does not fully meet the medical requirements and in complicated and unusual cases, the evaluation may have to be deferred and the case submitted to the medical assessor of CAD for final evaluation. In such cases due regard will be given to the privileges granted by the licence applied for or held by the applicant for the Medical Assessment, and the conditions under which the licence holder is going to exercise those privileges in carrying out assigned duties.*
- Note4.** *Attention is called to the administrative clause in 1.2.4.8 dealing with accredited medical conclusion.*
- Note5.** *Guidance material to assist medical examiners is published separately in the Manual of Civil Aviation Medicine (Doc 8984). This guidance material also contains a discussion of the terms “likely” and “significant” as used in the context of the medical provisions in Chapter 6.*

### 6.1 Medical Assessments — General

#### 6.1.1 Classes of Medical Assessment

Three classes of Medical Assessment established are as follows:

- a) Class 1 Medical Assessment; applies to applicants for, and holders of:
  - commercial pilot licences — aeroplane, airship, helicopter and powered-lift
  - multi-crew pilot licences — aeroplane
  - airline transport pilot licences — aeroplane, helicopter and powered-lift
- b) Class 2 Medical Assessment; applies to applicants for, and holders of:
  - flight navigator licences
  - flight engineer licences
  - private pilot licences — aeroplane, airship, helicopter and powered-lift
  - glider pilot licences
  - free balloon pilot licences
- c) Class 3 Medical Assessment; applies to applicants for, and holders of:
  - air traffic controller licences.

6.1.2 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 give 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 1.2.4.5.1.

6.1.3 The medical examiner shall report to CAD any individual case where, in the examiner’s judgement, an applicant’s failure to meet any requirement, whether numerical or otherwise, is such that exercise of the privileges of the licence being applied for, or held, is not likely to jeopardize flight safety (1.2.4.8).

6.1.4 The requirements to be met for the renewal of a Medical Assessment are the same as those for the initial assessment except where otherwise specifically stated.

**Note.** *The intervals between routine medical examinations for the purpose of renewing Medical Assessments are specified in 1.2.5.2.*

### 6.2 Requirements for Medical Assessments

#### 6.2.1 General

An applicant for a Medical Assessment issued in accordance with the terms of 1.2.4.1 shall undergo a medical examination based on the following requirements:



- a) physical and mental;
- b) visual and colour perception; and
- c) hearing.

6.2.2 Physical and mental requirements

An applicant for any class of Medical Assessment shall be required to be free from:

- a) any abnormality, congenital or acquired; or
- b) any active, latent, acute or chronic disability; or
- c) any wound, injury or sequelae from operation; or
- d) any effect or side-effect of any prescribed or nonprescribed therapeutic, diagnostic or preventive medication taken; such as would entail a degree of functional incapacity which is likely to interfere with the safe operation of an aircraft or with the safe performance of duties.

*Note.* Use of herbal medication and alternative treatment modalities requires particular attention to possible side-effects.

6.2.3 Visual acuity test requirements

6.2.3.1 The methods in use for the measurement of visual acuity are likely to lead to differing evaluations. To achieve uniformity, therefore, medical examiner shall ensure that equivalence in the methods of evaluation be obtained.

6.2.3.2 *The following may be adopted for tests of visual acuity:*

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

6.2.4 Colour perception requirements

6.2.4.1 Medical examiner shall use such methods of examination as will guarantee reliable testing of colour perception.

6.2.4.2 The applicant shall be required to demonstrate the ability to perceive readily those colours the perception of which is necessary for the safe performance of duties.

6.2.4.3 The applicant shall be tested for the ability to correctly identify a series of pseudoisochromatic plates in daylight or in artificial light of the same colour temperature such as that provided by CIE standard illuminants C or D65 as specified by the International Commission on Illumination (CIE).

6.2.4.4 An applicant obtaining a satisfactory result as prescribed shall be assessed as fit.

An applicant failing to obtain a satisfactory result in such a test shall be assessed as unfit unless able to readily distinguish the colours used in air navigation and correctly identify aviation coloured lights. Applicants who fail to meet these criteria shall be assessed as unfit except for Class 2 assessment with the following restriction: valid daytime only.

*Note.* Guidance on suitable methods of assessing colour vision is contained in the Manual of Civil Aviation Medicine (Doc 8984).

6.2.4.4.1 Sunglasses worn during the exercise of the privileges of the licence or rating held should normally be non-polarizing and of a neutral grey tint.

6.2.5 Hearing test requirements

6.2.5.1 Medical examiner shall use such methods of examination as will guarantee reliable testing of hearing.

6.2.5.2 Applicants shall demonstrate a hearing performance sufficient for the safe exercise of their licence and rating privileges.

6.2.5.3 Applicants for Class 1 Medical Assessments shall be tested by pure-tone audiometry at first issue of the Assessment, not less than once every five years up to the age of 40 years, and thereafter not less than once every two years.

6.2.5.3.1 Alternatively, other methods providing equivalent results may be used.

6.2.5.4 Applicants for Class 3 Medical Assessments shall be tested by pure-tone audiometry at first issue of the Assessment, not less than once every four years up to the age of 40 years, and thereafter not less than once every two years.

6.2.5.4.1 Alternatively, other methods providing equivalent results may be used.

6.2.5.5 Applicants for Class 2 Medical Assessment should be tested by pure-tone audiometry at first issue of the Assessment and, after the age of 50 years, not less than once every two years.

6.2.5.6 At medical examinations, other than those mentioned in 6.2.5.3, 6.2.5.4 and 6.2.5.5, where audiometry is not performed, applicants shall be tested in a quiet room by whispered and spoken voice tests.

*Note1. The reference zero for calibration of pure-tone audiometers is that of the pertinent Standards of the current edition of the Audiometric Test Methods, published by the International Organization for Standardization (ISO).*

*Note2. For the purpose of testing hearing in accordance with the requirements, a quiet room is a room in which the intensity of the background noise is less than 35 dB (A).*

*Note3. For the purpose of testing hearing in accordance with the requirements, the sound level of an average conversational voice at 1 m from the point of output (lower lip of the speaker) is c. 60 dB(A) and that of a whispered voice c. 45dB(A). At 2 m from the speaker, the sound level is 6 dB (A) lower.*

*Note4. Guidance on assessment of applicants who use hearing aids is contained in the Manual of Civil Aviation Medicine (Doc 8984).*

*Note5. Attention is called to 2.7.1.3.1 on requirements for the issue of instrument rating to applicants who hold a private pilot licence.*

### 6.3 Class 1 Medical Assessment

6.3.1 Assessment, issue and renewal

6.3.1.1 An applicant for a commercial pilot licence — aeroplane, airship, helicopter or powered-lift, a multi-crew pilot licence — aeroplane, or an airline transport pilot licence — aeroplane, helicopter or powered-lift shall undergo an initial medical examination for the issue of a Class 1 Medical Assessment.

6.3.1.2 Except where otherwise stated in this section, holders of commercial pilot licences — aeroplane, airship, helicopter or powered-lift, multi-crew pilot licences — aeroplane, or airline transport pilot licences — aeroplane, helicopter or powered-lift shall have their Class 1 Medical Assessments renewed at intervals not exceeding those specified in 1.2.5.2.

6.3.1.3 When the medical examiner is satisfied that the requirements of this section and the general provisions of 6.1 and 6.2 have been met, a Class 1 Medical Assessment shall be issued to the applicant.

6.3.2 Physical and mental requirements

6.3.2.1 The applicant shall not suffer from any disease or disability which could render that applicant likely to become suddenly unable either to operate an aircraft safely or to perform assigned duties safely.

6.3.2.2 The applicant shall have no established medical history or clinical diagnosis of:

- a) an organic mental disorder;
- b) a mental or behavioural disorder due to use of psychoactive substances; this includes dependence syndrome induced by alcohol or other psychoactive substances;
- c) schizophrenia or a schizotypal or delusional disorder;
- d) a mood (affective) disorder;
- e) a neurotic, stress-related or somatoform disorder;
- f) a behavioural syndrome associated with physiological disturbances or physical factors;

- g) a disorder of adult personality or behaviour, particularly if manifested by repeated overt acts;
- h) mental retardation;
- i) a disorder of psychological development;
- j) a behavioural or emotional disorder, with onset in childhood or adolescence; or
- k) a mental disorder not otherwise specified; such as might render the applicant unable to safely exercise the privileges of the licence applied for or held.

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

6.3.2.3 The applicant shall have no established medical history or clinical diagnosis of any of the following:

- a) a progressive or non-progressive disease of the nervous system, the effects of which are likely to interfere with the safe exercise of the applicant's licence and rating privileges;
- b) epilepsy; or
- c) any disturbance of consciousness without satisfactory medical explanation of cause.

6.3.2.4 The applicant shall not have suffered any head injury, the effects of which are likely to interfere with the safe exercise of the applicant's licence and rating privileges.

6.3.2.5 The applicant shall not possess any abnormality of the heart, congenital or acquired, which is likely to interfere with the safe exercise of the applicant's licence and rating privileges.

6.3.2.5.1 An applicant who has undergone coronary bypass grafting or angioplasty (with or without stenting) or other cardiac intervention or who has a history of myocardial infarction or who suffers from any other potentially incapacitating cardiac condition shall be assessed as unfit unless the applicant's cardiac condition has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges.

6.3.2.5.2 An applicant with an abnormal cardiac rhythm shall be assessed as unfit unless the cardiac arrhythmia has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges.

*Note.* Guidance on cardiovascular evaluation is contained in the Manual of Civil Aviation Medicine (Doc 8984).

6.3.2.6 Electrocardiography shall form part of the heart examination for the first issue of a Medical Assessment.

6.3.2.6.1 Electrocardiography shall be included in re-examinations of applicants over the age of 50 no less frequently than annually.

6.3.2.6.2 Electrocardiography may be included in re-examinations of applicants between the ages of 30 and 50 no less frequently than every two years.

*Note1.* The purpose of routine electrocardiography is case finding. It does not provide sufficient evidence to justify disqualification without further thorough cardiovascular investigation.

*Note2.* Guidance on resting and exercise electrocardiography is contained in the Manual of Civil Aviation Medicine (Doc 8984).

6.3.2.7 The systolic and diastolic blood pressures shall be within normal limits.

6.3.2.7.1 The use of drugs for control of high blood pressure shall be disqualifying except for those drugs, the use of which is compatible with the safe exercise of the applicant's licence and rating privileges.

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

6.3.2.8 There shall be no significant functional nor structural abnormality of the circulatory system.

6.3.2.9 There shall be no acute disability of the lungs nor any active disease of the structures of the lungs, mediastnum or pleurae likely to result in incapacitating symptoms during normal or emergency operations.

6.3.2.9.1 Chest radiography should form part of the initial examination.

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

6.3.2.10 Applicants with chronic obstructive pulmonary disease shall be assessed as unfit unless the applicant's condition has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges.

6.3.2.11 Applicants with asthma causing significant symptoms or likely to cause incapacitating symptoms during normal or emergency operations shall be assessed as unfit.

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

*Note.* Guidance on hazards of medication and drugs is contained in the Manual of Civil Aviation Medicine (Doc 8984).

6.3.2.12 Applicants with active pulmonary tuberculosis shall be assessed as unfit.

6.3.2.12.1 Applicants with quiescent or healed lesions which are known to be tuberculous, or are presumably tuberculous in origin, may be assessed as fit.

*Note1.* Guidance on assessment of respiratory diseases is contained in the Manual of Civil Aviation Medicine (Doc 8984).

*Note2.* Guidance on hazards of medications and drugs is contained in the Manual of Civil Aviation Medicine (Doc 8984).

6.3.2.13 Applicants with significant impairment of function of the gastrointestinal tract or its adnexa shall be assessed as unfit.

6.3.2.13.1 Applicants shall be completely free from those hernias that might give rise to incapacitating symptoms.

6.3.2.14 Applicants with sequelae of disease of, or surgical intervention on, any part of the digestive tract or its adnexa, likely to cause incapacitation in flight, in particular any obstruction due to stricture or compression, shall be assessed as unfit.

6.3.2.14.1 An applicant who has undergone a major surgical operation on the biliary passages or the digestive tract or its adnexa with a total or partial excision or a diversion of any of these organs should be assessed as unfit until such time as the medical assessor, having access to the details of the operation concerned, considers that the effects of the operation are not likely to cause incapacitation in flight.

6.3.2.15 Applicants with metabolic, nutritional or endocrine disorders that are likely to interfere with the safe exercise of their licence and rating privileges shall be assessed as unfit.

6.3.2.16 Applicants with insulin-treated diabetes mellitus shall be assessed as unfit.

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

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

6.3.2.17 Applicants with diseases of the blood and/or the lymphatic system shall be assessed as unfit unless adequately investigated and their condition found unlikely to interfere with the safe exercise of their licence and rating privileges.

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

6.3.2.18 Applicants with renal or genito-urinary disease shall be assessed as unfit, unless adequately investigated and their condition found unlikely to interfere with the safe exercise of their licence and rating privileges.

6.3.2.18.1 Urine examination shall form part of the medical examination and abnormalities shall be adequately investigated.

*Note.* Guidance on urine examination and evaluation of abnormalities is contained in the Manual of Civil Aviation Medicine (Doc 8984).

6.3.2.19 Applicants with sequelae of disease of or surgical procedures on the kidneys or the genito-urinary tract, in particular obstructions due to stricture or compression, shall be assessed as unfit unless the applicant's condition has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges.

6.3.2.19.1 Applicants who have undergone nephrectomy shall be assessed as unfit unless the condition is well compensated.

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

6.3.2.20.1 Applicants who are seropositive for human immunodeficiency virus (HIV) shall be assessed as unfit unless full investigation provides no evidence of clinical disease.

*Note1.* Evaluation of applicants who are seropositive for human immunodeficiency virus (HIV) requires particular attention to their mental state, including the psychological effects of the diagnosis.

*Note2.* Guidance on the assessment of applicants who are seropositive for human immunodeficiency virus (HIV) is contained in the Manual of Civil Aviation Medicine (Doc 8984).

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

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

6.3.2.22.1 For applicants with a low-risk uncomplicated pregnancy, evaluated and supervised in accordance with 6.3.2.22 and Attachment C, the fit assessment may be limited to the period from the end of the 12th week until the end of the 26th week of gestation.

6.3.2.23 Following confinement or termination of pregnancy, the applicant shall not be permitted to exercise the privileges of her licence until she has undergone re-evaluation in accordance with best medical practice and it has been determined that she is able to safely exercise the privileges of her licence and ratings.

6.3.2.24 The applicant shall not possess any abnormality of the bones, joints, muscles, tendons or related structures which is likely to interfere with the safe exercise of the applicant's licence and rating privileges.

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

6.3.2.25 The applicant shall not possess any abnormality or disease of the ear or related structures which is likely to interfere with the safe exercise of the applicant's licence and rating privileges.

6.3.2.26 There shall be:

- a) no disturbance of vestibular function;
- b) no significant dysfunction of the Eustachian tubes; and
- c) no unhealed perforation of the tympanic membranes.

6.3.2.26.1 A single dry perforation of the tympanic membrane need not render the applicant unfit.

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

6.3.2.27 There shall be:

- a) no nasal obstruction; and
- b) no malformation nor any disease of the buccal cavity or upper respiratory tract which is likely to interfere with the safe exercise of the applicant's licence and rating privileges.

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

6.3.3 Visual requirements

The medical examination shall be based on the following requirements.

6.3.3.1 The function of the eyes and their adnexa shall be normal. There shall be no active pathological condition, acute or chronic, nor any sequelae of surgery or trauma of the eyes or their adnexa likely to reduce proper visual function to an extent that would interfere with the safe exercise of the applicant's licence and rating privileges.

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

- a) such correcting lenses are worn during the exercise of the privileges of the licence or rating applied for or held; and
- b) in addition, a pair of suitable correcting spectacles is kept readily available during the exercise of the privileges of the applicant's licence.

*Note1.* An applicant accepted as meeting these provisions is deemed to continue to do so unless there is reason to suspect otherwise, in which case an ophthalmic report is required at the discretion of CAD. Both uncorrected and corrected visual acuity are normally measured and recorded at each re-examination. Conditions which indicate a need to obtain an ophthalmic report include: a substantial decrease in the uncorrected visual acuity, any decrease in best corrected visual acuity, and the occurrence of eye disease, eye injury or eye surgery.

6.3.3.2.1 Applicants may use contact lenses to meet this requirement provided that:

- a) the lenses are monofocal and non-tinted;
- b) the lenses are well tolerated; and
- c) a pair of suitable correcting spectacles is kept readily available during the exercise of the licence privileges.

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

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

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

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

*Note1.* The purpose of the required ophthalmic examination is (1) to ascertain normal visual performance, and (2) to identify any significant pathology.

---

**Note2.** *Guidance on the assessment of monocular applicants under the provisions of 1.2.4.8 is contained in the Manual of Civil Aviation Medicine (Doc 8984).*

6.3.3.3 Applicants who have undergone surgery affecting the refractive status of the eye shall be assessed as unfit unless they are free from those sequelae which are likely to interfere with the safe exercise of their licence and rating privileges.

6.3.3.4 The applicant shall have the ability to read, while wearing the correcting lenses, if any, required by 6.3.3.2, the N5 chart or its equivalent at a distance selected by that applicant in the range of 30 to 50 cm and the ability to read the N14 chart or its equivalent at a distance of 100 cm. If this requirement is met only by the use of near correction, the applicant may be assessed as fit provided that this near correction is added to the spectacle correction already prescribed in accordance with 6.3.3.2; if no such correction is prescribed, a pair of spectacles for near use shall be kept readily available during the exercise of the privileges of the licence. When near correction is required, the applicant shall demonstrate that one pair of spectacles is sufficient to meet both distant and near visual requirements.

**Note1.** *N5 and N14 refer to the size of typeface used. For further details, see the Manual of Civil Aviation Medicine (Doc 8984).*

**Note2.** *An applicant who needs near correction to meet this requirement will require “look-over”, bifocal or perhaps multifocal lenses in order to read the instruments and a chart or manual held in the hand, and also to make use of distant vision, through the windscreen, without removing the lenses. Single-vision near correction (full lenses of one power only, appropriate for reading) significantly reduces distant visual acuity and is therefore not acceptable.*

**Note3.** *Whenever there is a requirement to obtain or renew correcting lenses, an applicant is expected to advise the refractionist of reading distances for the visual flight deck tasks relevant to the types of aircraft in which the applicant is likely to function.*

6.3.3.4.1 When near correction is required in accordance with this paragraph, a second pair of near-correction spectacles shall be kept available for immediate use.

6.3.3.5 The applicant shall be required to have normal fields of vision.

6.3.3.6 The applicant shall be required to have normal binocular function.

6.3.3.6.1 Reduced stereopsis, abnormal convergence not interfering with near vision, and ocular misalignment where the fusional reserves are sufficient to prevent asthenopia and diplopia need not be disqualifying.

6.3.4 Hearing requirements

6.3.4.1 The applicant, when tested on a pure-tone audiometer, shall not have a hearing loss, in either ear separately, of more than 35 dB at any of the frequencies 500, 1000 or 2000 Hz, or more than 50 dB at 3000 Hz.

6.3.4.1.1 An applicant with a hearing loss greater than the above may be declared fit provided that the applicant has normal hearing performance against a background noise that reproduces or simulates the masking properties of flight deck noise upon speech and beacon signals.

**Note1.** *It is important that the background noise be representative of the noise in the cockpit of the type of aircraft for which the applicant’s licence and ratings are valid.*

**Note2.** *In the speech material for discrimination testing, both aviation-relevant phrases and phonetically balanced words are normally used.*

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

## 6.4 Class 2 Medical Assessment

6.4.1 Assessment issue and renewal

- 6.4.1.1 An applicant for a private pilot licence — aeroplane, airship, helicopter or powered-lift, a glider pilot licence, a free balloon pilot licence, a flight engineer licence or a flight navigator licence shall undergo an initial medical examination for the issue of a Class 2 Medical Assessment. 6.4.1.2 Except where otherwise stated in this section, holders of private pilot licences — aeroplane, airship, helicopter or powered-lift, glider pilot licences, free balloon pilot licences, flight engineer licences or flight navigator licences shall have their Class 2 Medical Assessments renewed at intervals not exceeding those specified in 1.2.5.2.
- 6.4.1.3 When the medical examiner is satisfied that the requirements of this section and the general provisions of 6.1 and 6.2 have been met, a Class 2 Medical Assessment shall be issued to the applicant.
- 6.4.2 Physical and mental requirements.  
The medical examination shall be based on the following requirements.
- 6.4.2.1 The applicant shall not suffer from any disease or disability which could render that applicant likely to become suddenly unable either to operate an aircraft safely or to perform assigned duties safely.
- 6.4.2.2 The applicant shall have no established medical history or clinical diagnosis of:
- a) an organic mental disorder;
  - b) a mental or behavioural disorder due to psychoactive substance use; this includes dependence syndrome induced by alcohol or other psychoactive substances;
  - c) schizophrenia or a schizotypal or delusional disorder;
  - d) a mood (affective) disorder;
  - e) a neurotic, stress-related or somatoform disorder;
  - f) a behavioural syndrome associated with physiological disturbances or physical factors;
  - g) a disorder of adult personality or behaviour, particularly if manifested by repeated overt acts;
  - h) mental retardation;
  - i) a disorder of psychological development;
  - j) a behavioural or emotional disorder, with onset in childhood or adolescence; or
  - k) a mental disorder not otherwise specified; such as might render the applicant unable to safely exercise the privileges of the licence applied for or held.
- Note. Mental and behavioural disorders are defined in accordance with the clinical descriptions and diagnostic guidelines of the World Health Organization as given in the International Statistical Classification of Diseases and Related Health Problems, 10th Edition — Classification of Mental and Behavioural Disorders, WHO 1992. This document contains detailed descriptions of the diagnostic requirements, which may be useful for their application to medical assessment.*
- 6.4.2.3 The applicant shall have no established medical history or clinical diagnosis of any of the following:
- a) a progressive or non-progressive disease of the nervous system, the effects of which are likely to interfere with the safe exercise of the applicant's licence and rating privileges;
  - b) epilepsy;
  - c) any disturbance of consciousness without satisfactory medical explanation of cause.
- 6.4.2.4 The applicant shall not have suffered any head injury, the effects of which are likely to interfere with the safe exercise of the applicant's licence and rating privileges.
- 6.4.2.5 The applicant shall not possess any abnormality of the heart, congenital or acquired, which is likely to interfere with the safe exercise of the applicant's licence and rating privileges.
- 6.4.2.5.1 An applicant who has undergone coronary by-pass grafting or angioplasty (with or without stenting) or other cardiac intervention or who has a history of myocardial infarction or who suffers from any other potentially incapacitating cardiac condition shall be assessed as unfit unless the applicant's cardiac condition has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges.
- 6.4.2.5.2 An applicant with an abnormal cardiac rhythm shall be assessed as unfit unless the cardiac arrhythmia has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges.



---

**Note.** *Guidance on cardiovascular evaluation is contained in the Manual of Civil Aviation Medicine (Doc 8984).*

6.4.2.6 Electrocardiography shall form part of the heart examination for the first issue of a Medical Assessment after the age of 40.

6.4.2.6.1 Electrocardiography shall be included in reexaminations of applicants after the age of 50 no less than every two years.

6.4.2.6.2 Electrocardiography should form part of the heart examination for the first issue of a Medical Assessment.

**Note1.** *The purpose of routine electrocardiography is case finding. It does not provide sufficient evidence to justify disqualification without further thorough cardiovascular investigation.*

**Note2.** *Guidance on resting and exercise electrocardiography is contained in the Manual of Civil Aviation Medicine (Doc 8984).*

6.4.2.7 The systolic and diastolic blood pressures shall be within normal limits.

6.4.2.7.1 The use of drugs for control of high blood pressure shall be disqualifying except for those drugs, the use of which is compatible with the safe exercise of the applicant's licence and rating privileges.

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

6.4.2.8 There shall be no significant functional nor structural abnormality of the circulatory system.

6.4.2.9 There shall be no disability of the lungs nor any active disease of the structures of the lungs, mediastinum or pleura likely to result in incapacitating symptoms during normal or emergency operations.

6.4.2.9. Chest radiography should form part of the initial and periodic examinations in cases where asymptomatic pulmonary disease can be expected.

6.4.2.10 Applicants with chronic obstructive pulmonary disease shall be assessed as unfit unless the applicant's condition has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges.

6.4.2.11 Applicants with asthma causing significant symptoms or likely to cause incapacitating symptoms during normal or emergency operations shall be assessed as unfit.

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

**Note.** *Guidance on hazards of medication and drugs is contained in the Manual of Civil Aviation Medicine (Doc 8984).*

6.4.2.12 Applicants with active pulmonary tuberculosis shall be assessed as unfit.

6.4.2.12.1 Applicants with quiescent or healed lesions, known to be tuberculous or presumably tuberculous in origin, may be assessed as fit.

**Note1.** *Guidance on assessment of respiratory diseases is contained in the Manual of Civil Aviation Medicine (Doc 8984).*

**Note2.** *Guidance on hazards of medication and drugs is contained in the Manual of Civil Aviation Medicine (Doc 8984).*

6.4.2.13 Applicants shall be completely free from those hernias that might give rise to incapacitating symptoms.

6.4.2.13.1 Applicants with significant impairment of the function of the gastrointestinal tract or its adnexa shall be assessed as unfit.

6.4.2.14 Applicants with sequelae of disease of or surgical intervention on any part of the digestive tract or its adnexa, likely to cause incapacitation in flight, in particular any obstruction due to stricture or compression, shall be assessed as unfit.

6.4.2.14.1 An applicant who has undergone a major surgical operation on the biliary passages or the digestive tract or its adnexa with a total or partial excision or a diversion of any of these organs should be assessed as unfit until such time as the medical assessor, having access to the details of the operation concerned, considers that the effects of the operation are not likely to cause incapacitation in flight.

6.4.2.15 Applicants with metabolic, nutritional or endocrine disorders that are likely to interfere with the safe exercise of their licence and rating privileges shall be assessed as unfit.

6.4.2.16 Applicants with insulin-treated diabetes mellitus shall be assessed as unfit.

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

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

6.4.2.17 Applicants with diseases of the blood and/or the lymphatic system shall be assessed as unfit unless adequately investigated and their condition found unlikely to interfere with the safe exercise of their licence and rating privileges.

*Note.* Sickle cell trait and other haemoglobinopathic traits are usually compatible with fit assessment.

6.4.2.18 Applicants with renal or genito-urinary disease shall be assessed as unfit unless adequately investigated and their condition found unlikely to interfere with the safe exercise of their licence and rating privileges.

6.4.2.18.1 Urine examination shall form part of the medical examination and abnormalities shall be adequately investigated.

*Note.* Guidance on urine examination and evaluation of abnormalities is contained in the Manual of Civil Aviation Medicine (Doc 8984).

6.4.2.19 Applicants with sequelae of disease of, or surgical procedures on, the kidneys or the genito-urinary tract, in particular obstructions due to stricture or compression, shall be assessed as unfit unless the applicant's condition has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges.

6.4.2.19.1 Applicants who have undergone nephrectomy shall be assessed as unfit unless the condition is well compensated.

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

6.4.2.20.1 Applicants who are seropositive for human immunodeficiency virus (HIV) shall be assessed as unfit unless full investigation provides no evidence of clinical disease.

*Note1.* Evaluation of applicants who are seropositive for human immunodeficiency virus (HIV) requires particular attention to their mental state, including the psychological effects of the diagnosis.

*Note2.* Guidance on the assessment of applicants who are seropositive for human immunodeficiency virus (HIV) is contained in the Manual of Civil Aviation Medicine (Doc 8984).

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

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

6.4.2.22.1 For applicants with a low-risk uncomplicated pregnancy, evaluated and supervised in accordance with 6.4.2.22 and Attachment C, the fit assessment should be limited to the period from the end of the 12th week until the end of the 26th week of gestation.

6.4.2.23 Following confinement or termination of pregnancy, the applicant shall not be permitted to exercise the privileges of her licence until she has undergone re-evaluation in accordance with best medical practice and it has been determined that she is able to safely exercise the privileges of her licence and ratings.

6.4.2.24 The applicant shall not possess any abnormality of the bones, joints, muscles, tendons or related structures which is likely to interfere with the safe exercise of the applicant's licence and rating privileges.

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

6.4.2.25 The applicant shall not possess any abnormality or disease of the ear or related structures which is likely to interfere with the safe exercise of the applicant's licence and rating privileges.

6.4.2.26 There shall be:

- a) no disturbance of the vestibular function;
- b) no significant dysfunction of the Eustachian tubes; and
- c) no unhealed perforation of the tympanic membranes.

6.4.2.26.1 A single dry perforation of the tympanic membrane need not render the applicant unfit.

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

6.4.2.27 There shall be:

- a) no nasal obstruction; and
- b) no malformation nor any disease of the buccal cavity or upper respiratory tract; which is likely to interfere with the safe exercise of the applicant's licence and rating privileges.

6.4.2.28 Applicants with stuttering and other speech defects sufficiently severe to cause impairment of speech communication shall be assessed as unfit.

6.4.3 Visual requirements

The medical examination shall be based on the following requirements.

6.4.3.1 The function of the eyes and their adnexa shall be normal. There shall be no active pathological condition, acute or chronic, nor any sequelae of surgery or trauma of the eyes or their adnexa likely to reduce proper visual function to an extent that would interfere with the safe exercise of the applicant's licence and rating privileges.

6.4.3.2 Distant visual acuity with or without correction shall be 6/12 or better in each eye separately, and binocular visual acuity shall be 6/9 or better. No limits apply to uncorrected visual acuity. Where this standard of visual acuity can be obtained only with correcting lenses, the applicant may be assessed as fit provided that:

- a) such correcting lenses are worn during the exercise of the privileges of the licence or rating applied for or held; and
- b) in addition, a pair of suitable correcting spectacles is kept readily available during the exercise of the privileges of the applicant's licence.

*Note.* An applicant accepted as meeting these provisions is deemed to continue to do so unless there is reason to suspect otherwise, in which case an ophthalmic report is required at the discretion of CAD. Both uncorrected and corrected visual acuity are normally measured and recorded at each re-examination.

---

*Conditions which indicate a need to obtain an ophthalmic report include: a substantial decrease in the uncorrected visual acuity, any decrease in best corrected visual acuity, and the occurrence of eye disease, eye injury or eye surgery.*

6.4.3.2.1 Applicants may use contact lenses to meet this requirement provided that:

- a) the lenses are monofocal and non-tinted;
- b) the lenses are well tolerated; and
- c) a pair of suitable correcting spectacles is kept readily available during the exercise of the licence privileges.

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

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

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

6.4.3.2.3 Applicants whose uncorrected distant visual acuity in either eye is worse than 6/60 should be required to provide a full ophthalmic report prior to initial Medical Assessment and every five years thereafter.

**Note1.** *The purpose of the required ophthalmic examination is (1) to ascertain normal visual performance, and (2) to identify any significant pathology.*

**Note2.** *Guidance on the assessment of monocular applicants under the provisions of 1.2.4.8 is contained in the Manual of Civil Aviation Medicine (Doc 8984).*

6.4.3.3 Applicants who have undergone surgery affecting the refractive status of the eye shall be assessed as unfit unless they are free from those sequelae which are likely to interfere with the safe exercise of their licence and rating privileges.

6.4.3.4 The applicant shall have the ability to read, while wearing the correcting lenses, if any, required by 6.4.3.2, the N5 chart or its equivalent at a distance selected by that applicant in the range of 30 to 50 cm. If this requirement is met only by the use of near correction, the applicant may be assessed as fit provided that this near correction is added to the spectacle correction already prescribed in accordance with 6.4.3.2; if no such correction is prescribed, a pair of spectacles for near use shall be kept readily available during the exercise of the privileges of the licence. When near correction is required, the applicant shall demonstrate that one pair of spectacles is sufficient to meet both distant and near visual requirements.

**Note1.** *N5 refers to the size of typeface used. For further details, see the Manual of Civil Aviation Medicine (Doc 8984).*

**Note2.** *An applicant who needs near correction to meet the requirement will require “look-over”, bifocal or perhaps multifocal lenses in order to read the instruments and a chart or manual held in the hand, and also to make use of distant vision, through the windscreen, without removing the lenses. Single-vision near correction (full lenses of one power only, appropriate for reading) significantly reduces distant visual acuity and is therefore not acceptable.*

**Note3.** *Whenever there is a requirement to obtain or renew correcting lenses, an applicant is expected to advise the refractionist of the reading distances for the visual flight deck tasks relevant to the types of aircraft in which the applicant is likely to function.*

6.4.3.4.1 When near correction is required in accordance with this paragraph, a second pair of near-correction spectacles shall be kept available for immediate use.

6.4.3.5 The applicant shall be required to have normal fields of vision.

6.4.3.6 The applicant shall be required to have normal binocular function.

6.4.3.6.1 Reduced stereopsis, abnormal convergence not interfering with near vision, and ocular misalignment where the fusional reserves are sufficient to prevent asthenopia and diplopia need not be disqualifying.

6.4.4 Hearing requirements

*Note.* Attention is called to 2.7.1.3.1 on requirements for the issue of instrument rating to applicants who hold a private pilot licence.

6.4.4.1 Applicants who are unable to hear an average conversational voice in a quiet room, using both ears, at a distance of 2 m from the examiner and with the back turned to the examiner, shall be assessed as unfit.

6.4.4.2 When tested by pure-tone audiometry, an applicant with a hearing loss, in either ear separately, of more than 35 dB at any of the frequencies 500, 1 000 or 2 000 Hz, or more than 50 dB at 3 000 Hz, shall be assessed as unfit.

6.4.4.3 An applicant who does not meet the requirements in 6.4.4.1 or 6.4.4.2 should undergo further testing in accordance with 6.3.4.1.1.

## **6.5 Class 3 Medical Assessment**

6.5.1 Assessment, issue and renewal

6.5.1.1 An applicant for an air traffic controller licence shall undergo an initial medical examination for the issue of a Class 3 Medical Assessment.

6.5.1.2 Except where otherwise stated in this section, holders of air traffic controller licences shall have their Class 3 Medical Assessments renewed at intervals not exceeding those specified in 1.2.5.2.

6.5.1.3 When the medical examiner is satisfied that the requirements of this section and the general provisions of 6.1 and 6.2 have been met, a Class 3 Medical Assessment shall be issued to the applicant.

6.5.2 Physical and mental requirements

6.5.2.1 The applicant shall not suffer from any disease or disability which could render that applicant likely to become suddenly unable to perform duties safely.

6.5.2.2 The applicant shall have no established medical history or clinical diagnosis of:

- a) an organic mental disorder;
- b) a mental or behavioural disorder due to psychoactive substance use; this includes dependence syndrome induced by alcohol or other psychoactive substances;
- c) schizophrenia or a schizotypal or delusional disorder;
- d) a mood (affective) disorder;
- e) a neurotic, stress-related or somatoform disorder;
- f) a behavioural syndrome associated with physiological disturbances or physical factors;
- g) a disorder of adult personality or behaviour, particularly if manifested by repeated overt acts;
- h) mental retardation;
- i) a disorder of psychological development;
- j) a behavioural or emotional disorder, with onset in childhood or adolescence; or
- k) a mental disorder not otherwise specified; such as might render the applicant unable to safely exercise the privileges of the licence applied for or held.

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

6.5.2.3 The applicant shall have no established medical history or clinical diagnosis of any of the following:

- a) a progressive or non-progressive disease of the nervous system, the effects of which are likely to interfere with the safe exercise of the applicant's licence and rating privileges;
- b) epilepsy; or
- c) any disturbance of consciousness without satisfactory medical explanation of cause.

6.5.2.4 The applicant shall not have suffered any head injury, the effects of which are likely to interfere with the safe exercise of the applicant's licence and rating privileges.

6.5.2.5 The applicant shall not possess any abnormality of the heart, congenital or acquired, which is likely to interfere with the safe exercise of the applicant's licence and rating privileges.

6.5.2.5.1 An applicant who has undergone coronary bypass grafting or angioplasty (with or without stenting) or other cardiac intervention or who has a history of myocardial infarction or who suffers from any other potentially incapacitating cardiac condition shall be assessed as unfit unless the applicant's cardiac condition has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence and rating privileges.

6.5.2.5.2 An applicant with an abnormal cardiac rhythm shall be assessed as unfit unless the cardiac arrhythmia has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence and rating privileges.

*Note.* Guidance on cardiovascular evaluation is contained in the Manual of Civil Aviation Medicine (Doc 8984).

6.5.2.6 Electrocardiography shall form part of the heart examination for the first issue of a Medical Assessment.

6.5.2.6.1 Electrocardiography shall be included in re-examinations of applicants after the age of 50 no less frequently than every two years.

*Note1.* The purpose of routine electrocardiography is case finding. It does not provide sufficient evidence to justify disqualification without further thorough cardiovascular investigation.

*Note2.* Guidance on resting and exercise electrocardiography is contained in the Manual of Civil Aviation Medicine (Doc 8984).

6.5.2.7 The systolic and diastolic blood pressures shall be within normal limits.

6.5.2.7.1 The use of drugs for control of high blood pressure is disqualifying except for those drugs, the use of which is compatible with the safe exercise of the applicant's licence privileges.

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

6.5.2.8 There shall be no significant functional nor structural abnormality of the circulatory system.

6.5.2.9 There shall be no disability of the lungs nor any active disease of the structures of the lungs, mediastinum or pleurae likely to result in incapacitating symptoms.

*Note.* Chest radiography is usually not necessary but may be indicated in cases where asymptomatic pulmonary disease can be expected.

6.5.2.10 Applicants with chronic obstructive pulmonary disease shall be assessed as unfit unless the applicant's condition has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges.

6.5.2.11 Applicants with asthma causing significant symptoms or likely to cause incapacitating symptoms shall be assessed as unfit.

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

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

6.5.2.12 Applicants with active pulmonary tuberculosis shall be assessed as unfit.

6.5.2.12.1 Applicants with quiescent or healed lesions known to be tuberculous or presumably tuberculous in origin may be assessed as fit.

*Note1. Guidance on assessment of respiratory diseases is contained in the Manual of Civil Aviation Medicine (Doc 8984).*

*Note2. Guidance on hazards of medication and drugs is contained in the Manual of Civil Aviation Medicine (Doc 8984).*

6.5.2.13 Applicants with significant impairment of the function of the gastrointestinal tract or its adnexae shall be assessed as unfit.

6.5.2.14 Applicants with sequelae of disease of or surgical intervention on any part of the digestive tract or its adnexa, likely to cause incapacitation, in particular any obstructions due to stricture or compression, shall be assessed as unfit.

6.5.2.14.1 An applicant who has undergone a major surgical operation on the biliary passages or the digestive tract or its adnexa, with a total or partial excision or a diversion of any of these organs should be assessed as unfit until such time as the medical assessor, having access to the details of the operation concerned, considers that the effects of the operation are not likely to cause incapacitation.

6.5.2.15 Applicants with metabolic, nutritional or endocrine disorders that are likely to interfere with the safe exercise of their licence and rating privileges shall be assessed as unfit.

6.5.2.16 Applicants with insulin-treated diabetes mellitus shall be assessed as unfit.

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

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

6.5.2.17 Applicants with diseases of the blood and/or the lymphatic system shall be assessed as unfit, unless adequately investigated and their condition found unlikely to interfere with the safe exercise of their licence and rating privileges.

6.5.2.18 Applicants with renal or genito-urinary disease shall be assessed as unfit unless adequately investigated and their condition found unlikely to interfere with the safe exercise of their licence and rating privileges.

6.5.2.18.1 Urine examination shall form part of the medical examination and abnormalities shall be adequately investigated.

*Note. Guidance on urine examination and evaluation of abnormalities is contained in the Manual of Civil Aviation Medicine (Doc 8984).*

6.5.2.19 Applicants with sequelae of disease of, or surgical procedures on the kidneys or the genito-urinary tract, in particular obstructions due to stricture or compression, shall be assessed as unfit unless the applicant's condition has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges.

6.5.2.19.1 Applicants who have undergone nephrectomy shall be assessed as unfit unless the condition is well compensated.

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

6.5.2.20.1 Applicants who are seropositive for human immunodeficiency virus (HIV) shall be assessed as unfit unless full investigation provides no evidence of clinical disease.

---

**Note1.** *Evaluation of applicants who are seropositive for human immunodeficiency virus (HIV) requires particular attention to their mental state, including the psychological effects of the diagnosis.*

**Note2.** *Guidance on the assessment of applicants who are seropositive for human immunodeficiency virus (HIV) is contained in the Manual of Civil Aviation Medicine (Doc 8984).*

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

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

6.5.2.22.1 During the gestational period, precautions should be taken for the timely relief of an air traffic controller in the event of early onset of labour or other complications.

6.5.2.22.2 For applicants with a low-risk uncomplicated pregnancy, evaluated and supervised in accordance with 6.5.2.22 and Attachment C, the fit assessment may be limited to the period until the end of the 34th week of gestation.

6.5.2.23 Following confinement or termination of pregnancy the applicant shall not be permitted to exercise the privileges of her licence until she has undergone re-evaluation in accordance with best medical practice and it has been determined that she is able to safely exercise the privileges of her licence and ratings.

6.5.2.24 The applicant shall not possess any abnormality of the bones, joints, muscles, tendons or related structures which is likely to interfere with the safe exercise of the applicant's licence and rating privileges.

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

6.5.2.25 The applicant shall not possess any abnormality or disease of the ear or related structures which is likely to interfere with the safe exercise of the applicant's licence and rating privileges.

6.5.2.26 There shall be no malformation nor any disease of the nose, buccal cavity or upper respiratory tract which is likely to interfere with the safe exercise of the applicant's licence and rating privileges.

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

6.5.3 Visual requirements

The medical examination shall be based on the following requirements.

6.5.3.1 The function of the eyes and their adnexa shall be normal. There shall be no active pathological condition, acute or chronic, nor any sequelae of surgery or trauma of the eyes or their adnexa likely to reduce proper visual function to an extent that would interfere with the safe exercise of the applicant's licence and rating privileges.

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

- a) such correcting lenses are worn during the exercise of the privileges of the licence or rating applied for or held; and
- b) in addition, a pair of suitable correcting spectacles is kept readily available during the exercise of the privileges of the applicant's licence.

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



---

*uncorrected visual acuity, any decrease in best corrected visual acuity, and the occurrence of eye disease, eye injury or eye surgery.*

6.5.3.2.1 Applicants may use contact lenses to meet this requirement provided that:

- a) the lenses are monofocal and non-tinted;
- b) the lenses are well tolerated; and
- c) a pair of suitable correcting spectacles is kept readily available during the exercise of the licence privileges.

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

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

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

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

*Note1.* The purpose of the required ophthalmic examination is (1) to ascertain normal vision performance, and (2) to identify any significant pathology.

*Note2.* Guidance on the assessment of monocular applicants under the provisions of 1.2.4.8 is contained in the Manual of Civil Aviation Medicine (Doc 8984).

6.5.3.3 Applicants who have undergone surgery affecting the refractive status of the eye shall be assessed as unfit unless they are free from those sequelae which are likely to interfere with the safe exercise of their licence and rating privileges.

6.5.3.4 The applicant shall have the ability to read, while wearing the correcting lenses, if any, required by 6.5.3.2, the N5 chart or its equivalent at a distance selected by that applicant in the range of 30 to 50 cm and the ability to read the N14 chart or its equivalent at a distance of 100 cm. If this requirement is met only by the use of near correction, the applicant may be assessed as fit provided that this near correction is added to the spectacle correction already prescribed in accordance with 6.5.3.2; if no such correction is prescribed, a pair of spectacles for near use shall be kept readily available during the exercise of the privileges of the licence. When near correction is required, the applicant shall demonstrate that one pair of spectacles is sufficient to meet both distant and near visual requirements.

*Note1.* N5 and N14 refer to the size of typeface used. For further details, see the Manual of Civil Aviation Medicine (Doc 8984).

*Note2.* An applicant who needs near correction to meet the requirement will require “look-over”, bifocal or perhaps multi-focal lenses in order to read radar screens, visual displays and written or printed material and also to make use of distant vision, through the windows, without removing the lenses. Single-vision near correction (full lenses of one power only, appropriate for reading) may be acceptable for certain air traffic control duties. However, it should be realized that single-vision near correction significantly reduces distant visual acuity.

*Note3.* Whenever there is a requirement to obtain or renew correcting lenses, an applicant is expected to advise the refractionist of reading distances for the air traffic control duties the applicant is likely to perform.

6.5.3.4.1 When near correction is required in accordance with this paragraph, a second pair of near-correction spectacles shall be kept available for immediate use.

6.5.3.5 The applicant shall be required to have normal fields of vision.

6.5.3.6 The applicant shall be required to have normal binocular function.

6.5.3.6.1 Reduced stereopsis, abnormal convergence not interfering with near vision, and ocular misalignment where the fusional reserves are sufficient to prevent asthenopia and diplopia need not be disqualifying.

6.5.4 Hearing requirements

6.5.4.1 The applicant, when tested on a pure-tone audiometer shall not have a hearing loss, in either ear separately, of more than 35 dB at any of the frequencies 500, 1 000 or 2 000 Hz, or more than 50 dB at 3 000 Hz.

6.5.4.1.1 An applicant with a hearing loss greater than the above may be declared fit provided that the applicant has normal hearing performance against a background noise that reproduces or simulates that experienced in a typical air traffic control working environment.

*Note1. The frequency composition of the background noise is defined only to the extent that the frequency range 600 to 4 800 Hz (speech frequency range) is adequately represented.*

*Note2. In the speech material for discrimination testing, both aviation-relevant phrases and phonetically balanced words are normally used.*

6.5.4.1.2 Alternatively, a practical hearing test conducted in an air traffic control environment representative of the one for which the applicant's licence and ratings are valid may be used.

## APPENDIX 1

### REQUIREMENTS FOR PROFICIENCY IN LANGUAGES USED FOR RADIOTELEPHONY COMMUNICATIONS

*(Chapter 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 Chapter 1, Section 1.2.9, an applicant for a licence or a licence holder shall demonstrate, in a manner acceptable to the licensing authority, 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 misunderstanding (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

*(Chapter 1, 1.2.8.2 refers)*

#### 1. Issue of approval

- 1.1 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 of this Appendix.
- 1.2 The approval document will contain at least the following:
- a) organization's name and location;
  - b) date of issue and period of validity (where appropriate);
  - c) terms of approval.

#### 2. Training and procedures manual

- 2.1 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 programmes offered including the courseware and equipment to be used;
  - c) a description of the organization's quality assurance system in accordance with 4;
  - d) a description of the organization's facilities;
  - e) the name, duties and qualification of the person designated as responsible for compliance with the requirements of the approval in 6.1;
  - f) a description of the duties and qualification of the personnel designated as responsible for planning, performing and supervising the training in 6.2;
  - g) a description of the procedures used to establish and maintain the competence of instructional personnel as required by 6.3;
  - h) a description of the method used for the completion and retention of the training records required by 7;
  - i) a description, when applicable, of additional training needed to comply with an operator's procedures and requirements; and
  - j) when an approved training organization is authorized to conduct the testing required for the issuance of a licence or rating in accordance with 9, a description of the selection, role and duties of the authorized personnel, as well as the applicable requirements as established by CAD.
- 2.2 The training organization shall ensure that the training and procedures manual is amended as necessary to keep the information contained therein up to date.
- 2.3 Copies of all amendments to the training and procedures manual shall be furnished promptly to all organizations or persons to whom the manual has been issued.

#### 3. Training programmes

- 3.1 CAD may approve a training programme for a private pilot licence, commercial pilot licence or instrument rating that allows an alternative means of compliance with the experience requirements established by this manual, provided that the approved training organization demonstrates to the satisfaction of CAD that the training provides a level of competency at least equivalent to that provided by the minimum experience requirements for personnel not receiving such approved training.
- 3.2 When CAD approves a training programme for a multi-crew pilot licence, the approved training organization shall demonstrate to the satisfaction of CAD that the training provides a level of compe-

gency 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 pilots.

*Note.* *Guidance on the approval of training programmes can be found in the Manual on the Approval of Flight Crew Training Organizations (Doc 9841).*

#### **4. Quality assurance system**

The training organization shall establish a quality assurance system, acceptable to CAD, which ensures that training and instructional practices comply with all relevant requirements.

#### **5. Facilities**

5.1 The facilities and working environment shall be appropriate for the task to be performed and be acceptable to CAD.

5.2 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.

5.3 Synthetic training devices shall be qualified according to requirements as established by CAD and their use will be approved by CAD to ensure that they are appropriate to the task.

*Note.* *The Manual of Criteria for the Qualification of Flight Simulators (Doc 9625) provides guidance on the approval of flight simulators.*

#### **6. Personnel**

6.1 The training organization shall nominate a person responsible for ensuring that it is in compliance with the requirements for an approved organization.

6.2 The organization shall employ the necessary personnel to plan, perform and supervise the training to be conducted.

6.3 The competence of instructional personnel shall be in accordance with procedures and to a level acceptable to the CAD.

6.4 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).*

#### **7. Records**

7.1 The training organization shall retain detailed student records to show that all requirements of the training course have been met as agreed by CAD.

7.2 The training organization shall maintain a system for recording the qualifications and training of instructional and examining staff, where appropriate.

7.3 The records required by 7.1 shall be kept for a minimum period of two years after completion of the training. The records required by 7.2 shall be retained for a minimum period of two years after the instructor or examiner ceases to perform a function for the training organization.

#### **8. Oversight**

CAD will maintain an effective oversight programme of the approved training organization to ensure continuing compliance with the approval requirements.

**9. Evaluation and checking**

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

**APPENDIX 3**

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

*(Chapter 2, Section 2.5, 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.

*Note1.* 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).

*Note2.* 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**

4.1 The flight simulation training devices used to gain the experience specified in Chapter 2, 2.5.3.3, shall have to be approved by CAD.

4.2 Flight simulation training devices shall be categorized as follows:

- a) *Type I.* E-training and part tasking devices approved by CAD 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 auto-pilot.

**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**

LEVEL	PRONUNCIATION <i>Assumes a dialect and/or accent intelligible to the aeronautical community.</i>	STRUCTURE <i>Relevant grammatical structures and sentence patterns are determined by language functions appropriate to the task.</i>	OCABULARY	FLUENCY	COMPREHENSION	INTERACTIONS
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.

*Levels 1, 2 and 3 are on subsequent page.*



LEVEL	PRONUNCIATION <i>Assumes a dialect and/or accent intelligible to the aeronautical community.</i>	STRUCTURE <i>Relevant grammatical structures and sentence patterns are determined by language functions appropriate to the task.</i>	OCABULARY	FLEUENCY	COMPREHENSION	INTERACTIONS
Performs at a level below						
Preoperational 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.
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 Pre-operational 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 Chapter 2, 2.3, 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 copilot 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

### GUIDELINES FOR ASSESSING APPLICANTS WITH A LOW-RISK UNCOMPLICATED PREGNANCY

(Chapter 6, Section 6.3.2.22.1, 6.4.2.22.1, 6.5.2.22.2, refers)

*Note: This Attachment does not apply to cabin crew.*

Pregnancy entails unfitness. If obstetric evaluation indicates a low-risk uncomplicated pregnancy, the applicant may be assessed as fit until the end of the 26th week of gestation in cases of Class I and II medical holders (Pilots) and 34th week of gestation in case of Class III medical holders (Air Traffic Controllers), in accordance with the arrangement in this attachment.

1. On confirmation of the pregnancy the applicant shall consult a Gynecologist who must certify that he or she is satisfied that the pregnancy is not likely to interfere with the safe exercise of privileges of duties under the license that the person hold or applied for as the case maybe. This consultation must be sought once a month as long as the holder of the license desires to exercise privileges of duties, under the license that the person holds.
2. The certification by the Gynecologist must be approved by Medical Examiner who will then certify fitness to fly and the period thereof in the license.
3. Even upon the lifting of this suspension it is the responsibility of the pilot to assess herself daily during the course of the pregnancy and should refrain form exercising the privileges of duties, under the license that the person hold in case of any pregnancy related symptoms or when in doubt. The holder must also provide writing to the following effect to the Medical Examiner.

“I..... have been explained in a language I know the potentially significant complications of pregnancy by the Medical Examiner Dr....., particularly in relation to my job as a pilot/co-pilot/Air Traffic Controller. Further more I have been explained in a language I know the potential risks these complications can cause to me or others due to the nature of work I intend to carry out during this pregnancy and the immediate period after confinement. I hereby agree that the approval for this temporary release of my medical suspension due to this pregnancy is at my own risk and that I will assess myself on a daily basis and I should cease to exercise my privileges rendered to me by this release. If I find myself to be having any symptoms which I think is incompatible with the exercise of the said privilege and I shall sought the opinion of the Medical Examiner before exercising the said privilege again.”

4. Following confinement or termination of pregnancy, the applicant shall not be permitted to exercise the privileges of her license for a period of six weeks after which the Medical Examiner should certify her fitness to exercise the privileges of her license.

**LIST OF EFFECTIVE PAGES**

<b>Page</b>	<b>Issue</b>	<b>Revision No.</b>	<b>Date</b>
1-1	2	1	13 July 2008
1-2	2	1	13 July 2008
1-3	2	1	13 July 2008
1-4	2	1	13 July 2008
1-5	2	1	13 July 2008
1-6	2	1	12 October 2008
1-7	2	1	13 July 2008
1-8	2	1	13 July 2008
2-1	2	Original	15 February 09
3-1	2	Original	1 May 07

## CHAPTER 1 – FLIGHT CREW LICENSING REQUIREMENTS

### 1.2 General Policy

- a) The Maldives CAD provides a flight crew licensing service designed to meet the current needs of Maldives aircraft operators, and to comply with the standards prescribed in Annex 1 to the ICAO Convention.
- b) There are no flying schools in the Maldives, any private aircraft, and any balloons or gliders. For this reason, resources are not allocated to providing for these activities. This will change if and when a demand is identified.
- c) Flight crew licensing services currently provided are:
  - Issue of Student Pilot Permits
  - Issue of Certificates of Validation of foreign Pilot Licences
  - Issue of Pilot Licences on the basis of foreign licences
  - Issue of Instrument Ratings on the basis of foreign Instrument Ratings
  - Issue of Flight Instructor Ratings on the basis of foreign Flight Instructor ratings
  - Addition of aircraft class and type ratings to Maldives licences
  - Issue of Maldives Medical Certificates
  - Issue of Maldives Medical Certificates on the basis of foreign Medical Certificates
- d) Fees for some of the above services are stated under MCAR 187

#### 1.2.2 Validation of Foreign Flight Crew Licences

- a) General  
The Maldives provides three levels of validation of foreign flight crew licences.
- b) Validation for training purposes

A valid foreign licence is accepted as the equivalent of a student pilot permit. This is to enable flying training and checking to be carried out for the issue of a Maldives pilot licence, without the need to hold a Maldives Student Pilot Permit.

In this case the training and checking must be carried out under the supervision of an approved airline training organisation, and no passengers shall be carried

- c) Restricted Certificate of Validation

A restricted certificate of validation of a foreign pilot licence may be granted to a pilot who can demonstrate need to fly a Maldivian registered aircraft, but not on Public Transport operations. Examples of this might be the need to conduct a check ride, a test flight, or a ferry flight. The restricted certificate of validation will be given for a period not exceeding 90 days or until the purpose for which it was given is accomplished, whichever comes first.

In this case, the certificate of validation will include restrictions as to the operations authorised.

- i Requirements for issue
  - A fully completed copy of the form CAD/OPS/04 “Application for validation of Flight Crew Licence”.
  - valid foreign professional pilot licence which has been verified with the state of issue by the CAD
  - The original licence must be accompanied by a valid Class 1 medical certificate as prescribed in Part 1.

- A current PPC conducted within the preceding six months on the configuration applying to fly in the Maldives. For the purpose of ferrying a valid PPC done on type may be accepted.
- If the state of issue of original licence requires the type to be endorsed on the licence - evidence of 3 take-offs and landings with in the preceding 90 days, on the configuration applying to fly in the Maldives.
- If the state of issue of original licence dose not require the type to be endorsed on the licence - evidence of a current PPC and 3 take-offs and landings with in the preceding 90 days, on type on configuration applying to fly in the Maldives.

**Note** *The PPC and/or 3 take-offs and landings are done in the Maldives it will constitute as training on type and shall not be accepted for the grant of a validation.*

- All persons applying for validations will have to submit personnel identification.
  - For foreigners passports will be accepted.
  - For Locals National ID or Passport will be accepted
- If there is a change in the name or address, official documentation shall be presented to show the change.
- Logbook or other evidence, verifying that the minimum experience requirements as specified in part 1 of this manual have been met.

**Note** *The evidence of experience must be certified by an employer, a civil aviation authority, or other competent source.*

- A fee as specified in MCAR 187.

ii Conditions on a Certificate

- Public Transport operations will not be permitted
- The type of operation authorized will be specified.

d) Normal Certificate of Validation

A normal certificate of validation of a foreign professional pilot licence may be granted to a pilot who is employed by a Maldives operator. The purpose of this is to facilitate the introduction to service of the pilot, but the certificate includes restrictions intended to encourage the pilot to seek a Maldives flight crew licence.

i Requirements for issue

- A fully completed copy of the form CAD/OPS/04 “Application for validation of Flight Crew Licence
- A valid foreign professional pilot licence which has been verified with the state of issue by the CAD
- The original licence must be accompanied by a valid Class 1 medical certificate as prescribed in Part 1.
- A pilot applying for a validation must have a current PPC conducted within the preceding six months on the configuration applying to fly in the Maldives.
- If the state of issue of original licence requires the type to be endorsed on the licence - evidence of 3 take-offs and landings with in the preceding 90 days, on the configuration applying to fly in the Maldives.
- If the state of issue of original licence dose not require the type to be endorsed on the licence - evidence of a current PPC and 3 take-offs and landings with in the preceding 90 days, on type on configuration applying to fly in the Maldives.

**Note 1** *The PPC and/or 3 take-offs and landings are done in the Maldives it will constitute as training on type and shall not be accepted for the grant of a validation.*

**Note 2** *The requirements of para i. are applicable to all new operators with immediate effect. For all existing operators requirements of para i. is applicable from 1<sup>st</sup> of November 2006.*

- All persons applying for validations will have to submit personnel identification.
  - For foreigners passports will be accepted.
  - For Locals National ID or Passport will be accepted
- If there is a change in the name or address, official documentation shall be presented to show the change.
- Logbook or other evidence, verifying that the minimum experience requirements as specified in part 1 of this manual have been met.

*Note* The evidence of experience must be certified by an employer, a civil aviation authority, or other competent source.

- A fee as specified in MCAR 187
- ii Conditions on a certificate
  - The certificate will be issued for a period of three months,
  - It will be restricted to operations with a specified operator
  - Until the holder has passed a CAD examination on Maldives regulations, he or she will be restricted to multi crew operations in which another crew-member has passed the regulations examination.
  - Any limitations included on the original licence or medical certificate, including validity date, shall apply on the certificate of validation,
  - Prior to acting as a crew-member on public transport operations, all of the requirements relating to currency, competency checks, and flight and duty times must be complied with.

#### 1.2.4 Medical Certificates

- a) A current Class 1 Medical Certificate forms part of every Maldives flight crew licence
- b) The standards for the medical certificate are prescribed in ICAO Annex 1
- c) A medical certificate may be issued by a medical examiner approved for the purpose by the Director General.
- d) Medical Examiners approved for the purpose are:
  - Dr. Ali Shahid Mohamed AME-004
  - Dr. Ismail Rasheed AME-005
  - Dr. Mauroof Hussain AME-006
  - Dr. Dhunya Thaufeeg AME-007
  - Dr. R.J.C. Pandian AME-008
- e) Foreign States whose Medical Certificates may be accepted are:

Australia	Nepal
Canada	New Zealand
European Union Member	Sri Lanka
(ECAC) Countries	Singapore
Malaysia	United States
- f) Medical Certificates for Commercial Pilot licences and Airline Transport Pilot Licences will be valid for the intervals specified below.
  - Pilots age under 40 12 months
  - Pilots age 40 and over 06 months

- g) All Medical Certificates required for personnel licensing will be considered valid from the date it was issued and will expire 24 months, 12 months or 6 months (depending on the class of medical and age limit) after the last day of the month the medical was issued.
- h) Pilots whose licence is still valid, but whose medical certificate has expired, may continue to exercise the privileges of a Student Pilot or Private Pilot for an additional 12 months if they are under age 40, and six months if they are age 40 and over.

## 2.1 Issue of Maldives Flight Crew Licence on the Basis of Foreign Licence

- a) General  
A Maldives Commercial Pilot Licence (A or H), or an Airline Transport Pilot Licence (A or H) may be issued on the basis of a current equivalent licence issued by an ICAO Contracting State. Provided the following requirements have been met.
- b) Requirements for Issue:
  - Application must be made on form CAD/OPS/05 “Application for Issue of Commercial Pilot Licence” or CAD/OPS/06 “Application for issue of Airline Transport Pilot Licence”, as appropriate
  - A valid foreign professional pilot licence which has been verified with the state of issue by the CAD
  - The original licence must be accompanied by a valid Class 1 medical certificate as prescribed in Part 1.
  - If there is a change in the name or address, official documentation shall be presented to show the change.
  - All persons applying for licences will have to submit personnel identification.
    - For foreigners passports will be accepted.
    - For Locals National ID or passport will be accepted.
  - The applicant must pass a written examination in Maldives Air Law
  - The applicant must produce logbook or other evidence that the experience requirements, as detailed in part 1, have been met.

*Note 1* The evidence of experience must be certified by an employer or other competent source, or sworn before a notary public before it will be accepted

*Note 2* The CAD will not accept any reduction in the experience requirements available to students who have attended an approved school unless that school has also been approved by the Maldives CAD

- The applicant must produce evidence of having flown for not less than 5 hours in the preceding six months, and has carried out not less than three take offs and landings within the preceding 90 days.
- The applicant must have received dual instruction in all the areas appropriate to the category of licence, as detailed in part 1

*Note* Pilots with fewer than 500 hours total flight time will be required to produce logbook evidence, or certification from a flying school that all of these requirements have been met.

- The applicant must produce evidence of skill appropriate to the category of licence. This shall be a pass in a Pilot Proficiency Check conducted by a CAD Designated Check Pilot.

*Note* For Maldivian pilots licence may be issued upon submitting a pass in a flight test conducted in the state of issue of the original licence, within the preceding six months

- If a current PPC on type but another configuration (such as wheels or skis) is submitted a licence can be issued after evidence is submitted for having done configuration conversion training.



*Note* Part or all of the Pilot Proficiency check may be conducted in a flight simulator acceptable to the CAD.

- Two stamp size photographs
- The fee specified in MCAR 187.

c) Validity Periods

The validity period for a Maldives Flight Crew Licence is two years

d) Currency Requirements

i The holder of a Maldives Flight Crew Licence may not exercise the privileges of that licence unless:

- It is accompanied by a valid Maldives medical certificate, and
- The holder has conducted not less than three take offs and three landings as pilot in command or co-pilot as appropriate, in aircraft of the same type, within the preceding 90 days.

ii The holder of a Maldives flight crew licence may not exercise the privileges of that licence on public transport operations unless all of the requirements relating to competency checks and flight and duty times have been complied with.

e) Requirements for Renewal

- A completed form CAD/OPS/08 'Application for renewal of Flight Crew Licence'
- A valid Class 1 medical certificate issued by CAD approved AME
- Evidence of a valid competency check done by a CAD approved DCP. The check shall be done on the type and configuration applying to flying in the Maldives.
- All persons applying for renewal of licences will have to submit personnel identification.
  - For foreigners passports will be accepted.
  - For Locals National ID or Passport will be accepted.
- The fee specified in MCAR 187.

*Note* Licence of Maldivian pilots not flying with a Maldivian AOC holder will be renewed on a case to case basis.

### 2.1.3 Class and Type Ratings

a) Class Ratings

i The following aeroplane class ratings may be included on a Maldives flight crew licence.

- Single engine, land
- Multi engine, land
- Single engine, sea
- Multi engine, sea

ii A class rating authorises the holder to act as pilot in command or co-pilot of any aeroplanes in the appropriate class that are fitted with reciprocating engines of not more than 200 horsepower.

ii A Class Rating may be included on a Maldives licence when:

- It appears on a foreign licence which is accepted by the CAD, or
- An aircraft type rating appropriate to that class appears on a foreign licence, or
- An aircraft type rating appropriate to that class is issued in the Maldives.

- iii) Requirements for Issue
  - A completed application form CAD/OPS/07 “Application for the inclusion of rating in a licence”
  - A valid class rating (on a foreign professional pilot licence) which has been verified with the state of issue by the CAD
  - In the case of multi engine sea class rating, this may be issued if the licence is endorsed with a single engine sea and multi engine land and upon submitting a valid PPC done by a CAD approved DCP in a Multi Engine Sea aircraft
  - A fee as specified in MCAR 187. Which will be waived if the class rating is issued at the same time as a Maldives flight crew licence

*Note The Original Class Rating will be verified by the CAD with the state of issue.*

b) Type Ratings

- i A type rating is required before a person may act as pilot in command or co pilot of any helicopter, or any aeroplane that is fitted with reciprocating engine(s) exceeding 200 horsepower.
- ii The type rating must be included on the flight crew licence if the aeroplane is certified:
  - for two pilot operations, or
  - fitted with turbine engines, or
  - fitted with a pressurization system, or
  - fitted with more than 9 passenger seats.
- iii) Requirements for Issue
  - A completed application form CAD/OPS/07 “Application for the inclusion of rating in a Licence”
  - A valid class rating (on a foreign professional pilot licence) which has been verified with the state of issue by the CAD
  - A fee as specified in MCAR 187. Which will be waived if the instrument rating is issued at the same time as a Maldives flight crew licence
  - In the case of aeroplane that is fitted with reciprocating engine(s) not exceeding 200 horsepower, the type rating may be in the form of a logbook entry signed by a DCP, provided the appropriate class rating is included on the licence.
  - A type rating may be included on a Maldives licence if the type is represented on the Maldives aircraft register and provided:
    - It appears on a foreign licence which is accepted by CAD, or
    - The applicant has completed an initial issue type rating course conducted by a CAD approved training organization and a copy of the check ride report conducted on the type by a CAD approved DCP is submitted ( not needed if rating appears on foreign licence)
  - A type rating of an aircraft that is not represented in the Maldivian register may be included in a Maldives Licence for Maldivians only, provided:
    - The applicant can demonstrate foreign experience on the type, and provide a copy of a satisfactory competency check ride conducted on the type.

## 2.2 Issue of Student Pilot Permit

### a) General

Student pilot Permits are issued to enable holders of expired flight crew licences to obtain the recent experience and/or competency checks required for a current licence.

### b) Requirements for Issue

- A completed application form CAD/OPS/02 “Application for Issue of Student Pilot Permit:
- A fee as specified in MCAR 187

## 2.7 The Instrument Rating

### a) General

- An instrument rating may be included on a Maldives Flight Commercial Pilot licence on the basis of a current instrument rating on a foreign licence.
- A foreign Instrument Rating will not be accepted unless its privileges include both precision and non-precision approach aids
- An Instrument Rating is an integral part of an Airline Transport Pilot Licence.
- Any limitations contained on the original Instrument Rating will also be included on the Maldives Instrument rating

### b) Requirements for Issue

- A completed application form CAD/OPS/07 ‘Application for the inclusion of a rating in a licence’
- A current instrument rating (on a foreign professional pilot licence) which has been verified with the state of issue by the CAD.
- Logbook or other evidence that the experience requirements for the instrument rating, as detailed in part 1, have been met.

**Note** *The evidence of experience must be certified by an employer, a civil aviation authority, or other competent source, before it will be accepted*

- Evidence of an instrument rating flight test or a PPC appropriate to the instrument rating, conducted within the preceding twelve months.

**Note** *Part or all of the Pilot Proficiency check may be conducted in a flight simulator acceptable to the CAD*

- The fee specified in MCAR 187, which will be waived if the instrument rating is issued at the same time as a Maldives flight crew licence

### c) Removal of limitations from an Instrument Rating

Any limitations that are contained on a Maldives licence may be removed on production of a satisfactory report from a Maldives DCP authorized to conduct Instrument rating flight checks.

### d) Renewal of an Instrument Rating

The Maldives instrument rating once issued is an integral part of a licence and does not expire. Its privileges, however, may not be exercised unless the currency requirements have been met.

### e) Currency Requirements

Before the privileges of an instrument rating can be exercised the holder must have passed a competency check appropriate to the instrument rating within the preceding 12 months.

## 2.8 The Flight Instructor Rating

- a) General
  - i A Flight Instructor rating may be included on a Maldives Flight Crew licence on the basis of a current Flight Instructor rating on a foreign licence.
  - ii Any limitations contained on the original Flight Instructor Rating will also be included on the Maldives Flight Instructor rating
- b) Requirements for Issue
  - A completed application form CAD/OPS/07 'Application for Inclusion of rating in a licence'
  - A current Flight Instructor rating (on a foreign professional pilot licence) which has been verified by the CAD
  - Evidence of a flight instructor flight test or a PPC appropriate to the flight instructor rating, conducted within the preceding two years.
  - The fee specified in MCAR 187, which will be waived if the Flight Instructor rating is issued at the same time as a Maldives flight crew licence
- c) Renewal of Flight Instructor Rating

The Maldives Flight Instructor rating is an integral part of a licence and does not expire. Its privileges, however, may not be exercised unless the currency requirements have been met.
- d) Currency Requirements

Before the privileges of a Flight Instructor rating can be exercised the holder must have passed a competency check appropriate to the Flight Instructor rating within the preceding two years.

---

## CHAPTER 2

### LICENSING OF CREW MEMBERS OTHER THAN LICENCES FOR PILOTS

**4.1 Reserved**

**4.2 Reserved**

**4.3 Reserved**

**4.4 Reserved**

**4.5 Issue of Maldives Flight Operations Officer/Flight Dispatcher Licence on the Basis of Foreign Licence**

a) General

A Maldives Flight Operations Officer/Flight Dispatcher Licence may be issued on the basis of a current equivalent licence issued by an ICAO Contracting State. Provided the following requirements have been met.

b) Requirements for Issue:

- Application must be made on form CAD/OPS/09“Application for Issue of Flight Operations Officer/ Flight Dispatcher Licence”, as appropriate
- A valid foreign professional dispatcher licence which has been verified with the state of issue by the CAD
- If there is a change in the name or address, official documentation shall be presented to show the change.
- All persons applying for licences will have to submit personnel identification.
  - For foreigners passports will be accepted.
  - For Locals National ID or passport will be accepted.
- The applicant must pass a written examination in Maldives Air Law
- The applicant must produce evidence that the experience requirements, as detailed in part 1, 4.5.1.3, have been met.
- Two stamp size photographs
- The fee specified in MCAR 187.

c) Validity Periods

The validity period for a Maldives Flight Operations Officer/Flight Dispatcher Licence is two years

d) Requirements for Renewal

- A completed form CAD/OPS/09 ‘Application for renewal of Flight Operations Officer/ Flight Dispatcher Licence’
- All persons applying for renewal of licences will have to submit personnel identification.
  - For foreigners passports will be accepted.
  - For Locals National ID or Passport will be accepted.
- The fee specified in MCAR 187.

**4.6 Reserved**

**4.7 Reserved**

**CHAPTER 3**  
**LICENCES AND RATINGS FOR PERSONNEL OTHER THAN FLIGHT CREW**  
**MEMBERS**

**3.1 Aircraft maintenance (technician/engineer/mechanic)**

Aircraft maintenance (technician/engineer/mechanic) licensing will be in accordance with MAR 66.

**3.2 Air traffic controller licence**

*To be developed*

**3.3 Flight operations officer/flight dispatcher licence**

*To be developed*

**3.4 Aeronautical station operator licence**

*To be developed*

**3.5 Aeronautical meteorological personnel**

*To be developed*