



# **Manual of Aviation Medicine**

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Second Edition  
September, 2013

**Department of Civil Aviation  
Ministry of Transport, Myanmar**

## **PREFACE**

This main purpose of this Manual of Aviation Medicine is to assist and guide designated medical examiners, medical assessors and Licensing Authorities in decision relating to the medical fitness of license applicants as specified in Annex 1 and Doc 8984.

Any person applying for or holding a license granted or renewal shall comply with these requirements and all amendments which may made from time to time. This Manual of Aviation Medicine (Second Edition September, 2013) is prescribed and shall take effect from 1<sup>st</sup>, September 2013.

This Second Edition is superseded the First Edition of Manual of Aviation Medicine. That has been issued from June, 2010.



Director General  
Department of Civil Aviation

Second Edition  
September, 2013

**DEPARTMENT OF CIVIL AVIATION**  
**MANUAL OF AVIATION MEDICINE**

**INFORMATION AND POLICY REGARDING DCA AVIATION MEDICAL  
EXAMINER SYSTEM AND AVIATION MEDICAL CERTIFICATION**

**INTRODUCTION**

**1. PURPOSE**

This DCA, Manual of Aviation Medicine (MAM) provides information regarding aviation medical examiner system and the DCA policy on the aviation medical certification.

**2. STATUS OF THIS DCA (MAM)**

This is the second edition of DCA (MAM), Manual of Aviation Medicine is dated September, 2013. It will remain current until withdrawn or superseded. This document involves the adoption of ICAO Annex 1 and Manual of Civil Aviation Medicine (Doc 8984) for airmen medical certificate & the issue of temporary medical certificate by the aviation medical examiner.

**3. APPLICABILITY**

This guidance and policy material applies to all Myanmar AMEs, aircraft operators, holders of flight and cabin crew licences, Air Traffic Controllers. This DCA (MAM) will also apply to applicants, who graduate from an approved DCA flying school, and to holder of a foreign licence seeking reciprocal recognition.

**4. REFERENCE**

The Civil Aviation Regulation makes provision to have certificates, and describes the requirements for the issuance of medical certificates. It also prescribes the medical certification standards and certification procedures.

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## **PART I**

### **AVIATION MEDICAL EXAMINER SYSTEM**

#### **1. PURPOSE**

The purpose of this document is to provide guidelines for the administration of the Aviation Medical Examiner System (AME System) including procedures for designating and terminating the designation of aviation medical examiners (AMEs).

#### **2. DELEGATION OF AUTHORITY**

The Flight Standards Division of DCA is the unit responsible for oversight and management of the AME System. The Licensing and Aviation medical Section develops and establishes policies, plans, procedures, standards, and regulations governing the AME System on the recommendation of the Aviation Medical Examiner:

- (a) Designates and terminates designation of local physicians as AMEs.
- (b) Monitors the AME System.
- (c) Provides administrative support for the AME system.

#### **3. GENERAL**

##### **3.1 Responsibilities**

AMEs assume certain responsibilities directly related to the DCA safety programme. They serve in their communities to enforce and ensure aviation safety. They have a responsibility to ensure that only those applicants who are physically and mentally able to perform safely may exercise the privileges of their licences. To properly discharge the duties associated with these responsibilities, AMEs shall maintain familiarity with general medical knowledge applicable to aviation. They shall have detailed knowledge and understanding of DCA regulations, policies, and procedures related to medical certification. They should also be familiar with the International Civil Aviation Regulations and this publication. AMEs must also possess acceptable equipment (Appendix 4) and adequate facilities necessary to carry out the prescribed examinations (Appendix 3-a,b).

##### **3.2 Selection and Retention of AMEs**

In the selection and retention of AMEs, the DCA will designate only professionally qualified and appropriately licensed physicians who are interested in promoting aviation safety. Only those physicians who enjoy the fullest respect of their associates and members of the public whom they serve shall be designated and retained as AMEs.

##### **3.3 Designation**

For the designation of an AME to perform unrestricted Class One, Two, Three and Cabin Crew Aviation Medical Examinations the following criteria apply.

### 3.3.1 AME Qualifications and Training.

- (a) DCA may designate qualified and licensed physicians in the practice of medicine to be authorized as an Aviation Medical Examiner (AME) and conduct medical examination of fitness of applicant for the issue, renewal or re-issue of the various licences, class I, class II, class III.
- (b) Qualified in aerospace or aviation medicine or
- (c) Have received training in the practice of aviation medicine by state or outside or
- (d) Previous experience as an aviation medical examiner.
- (e) AME should adequate knowledge and experience of the condition in which the holder of licence and rating carry out their duties.
- (f) AME shall have had or shall receive basic training in aviation medicine, on the subject listed in appendix (6) (a) and advanced training in aviation medicine on the subjects listed in appendix (6) (b).
- (g) Before designation medical examiner shall demonstrate adequate competency in aviation medicine.
- (h) Aviation Medical Examiner shall have practical knowledge and experience of the condition in which the holders of licences and rating carry out their duties. (see checklist appendix 8).

*Note: example of practical knowledge and experience are flight experience, simulator experience, on-site observation whenever possible actual flight deck experience in aircraft engagement in commercial operation as well as experience in the operational working condition of air traffic controllers. This is an effective way to promote the medical examiner's understanding of the practical demands, both physiological and psychological, that the licence holder's task and duties impose.*

### 3.4 Credentials

For the required credentials refer to Appendix 1, Aviation Medical Examiner Designation Application

## 4. CONDITIONS OF DESIGNATION

To be designated as an AME, the applicant must comply with the following conditions:

### 4.1 Credentials

The AME must notify the Flight Standards Division, DCA if at any time there is a change in status of licensure to practice medicine.

### 4.2 Professionalism

Be informed of the principles of aviation medicine; be thoroughly familiar with instructions as to techniques of examination, medical assessment, and certification of airmen, familiar with and abide by the policies, rules, and regulations of the DCA.

### **4.3 Aviation Medical Examinations**

- (a) 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 last examination.
- (b) The applicant shall indicate to the medical examiner whether a medical certificate has previously been refused, revoked or suspended and, if so the reason for such refusal, revocation or suspension.
- (c) Each applicant for a medical certificate shall provide the medical examiner with personally certified statement of medical facts concerning personal, familial and hereditary history.
- (d) Each applicant for medical certificate shall produce proof of identifications that contains the applicant's (1) photograph. (2) Signature. (3) Date of birth. (4) Actual residential address.
- (e) The applicant shall complete the appropriate application form (CA-118) as prescribed by the DCA, check list of form. Appendix 5 (e)

### **4.4 Continuing Education**

As a requirement for continued designation, an AME shall attend an AME refresher course every 3 years. Exceptions to this policy shall be based upon an AME's individual circumstances and mutual agreement between the AME and the DCA. Currently the refresher course can be taken with the ICAO. Attendance at one of the Aerospace or Aviation Medicine annual meetings/ conferences would be regarded as a refresher course.

### **4.5 Office Address and Telephone Numbers**

AMEs will be listed with each location and telephone number. The AME is required to promptly advise, in writing, the Licensing and the Aviation medical Section of the DCA of any change in office location or telephone numbers.

### **4.6 Facilities and Equipment**

The applicant shall have adequate facilities for performing the required examinations and possess or agree to obtain such equipment prior to conducting any DCA examinations. The AME Facility Survey Checklist is provided in Appendix 3(a)(b) and the Checklist for required equipment is listed in Appendix 4.

### **4.7 Duration of Designation.**

Designations of physicians as AMEs are effective for 3 years from the date of permanent designation unless terminated earlier by the Authority or the designee. For continued service as an AME, a new designation shall be made every three years. The DMEs shall have conducted at least ten flight crews or ATCO in each year.



#### 4.8 Duties and Responsibilities of DAMEs

A DAME is delegated by the authority to:

- (a) Accept applications for physical examinations necessary for issuing temporary medical certificates.
- (b) To carry out any investigations required for the medical examination (to see Medical Assessment Checklist – appendix (7) and to coordinate the result of examination and assess whether the applicant be satisfied the standard of medical fitness required for license.
- (c) To complete all section of the medical form, collate all special reports and results of investigation, reports in respective forms and forwards all of these to licensing authority.
- (d) To see that the applicant shall sign the statement in the respective form (CA form 118 – to see appendix 5(e) whether they here 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.
- (e) Defer a medical certification decision to the Authority,
  - (a) When the DAME does not have sufficient information, or is unsure of whether he/she should issue a medical certificate or if deferral is recommended by the Authority regulations.
  - (b) Re-examination of a license holder operating in an area distant from designated medical examination facilities may be deferred at the discretion of the Licensing Authority.
- (f) The DAME shall respect medical confidentiality at all times and shall securely hold all medical reports and records with accessibility restricted to authorized personnel.
- (g) The medical examiner shall be required to submit sufficient information to the Licensing Authority to enable that Authority to undertake Medical Assessment audit.
- (h) The DAME shall report to medical assessor when any false declaration made by an applicant for a license & rating for such action as may be considered appropriate. That such declaration be incorporated in the medical examination form (CA 118) and be a part of the national regulation as a reminder to the applicant of the consequences of any false declaration. According to MCAR Part 2 , para 2.4.1.8(f) suspend or revoked a medical certificate issued.

- (i) If the medical report is submitted to the licensing authority in electronic format adequate identification of the examiner shall be established.

#### **4.9 Designation of Aviation Medical Assessor**

Contracting state shall use the service of medical assessor to evaluate reports submitted to the Licensing Authorities by medical examiners. Medical Assessor is a consultant for the licensing Authorities and as Supervisors for the designated medical examiners.

#### **4.10 Appointment and Qualification of Aviation Medical Assessor**

- (a) A physician appointed by the licensing Authority, qualified and experienced in the practice of aviation medicine and competent in evaluating and assessing medical conditions of flight safety significance.
- (b) Medical Assessors will normally have advanced training in the specialty of aviation medicine and extensive experience in regulatory and clinical civil aviation medicine.
- (c) Medical Assessors are expected maintain the currency of their professional knowledge.

#### **4.11 Duties and responsibility of Aviation Medical Assessors**

- (a) Medical Assessor is a consultant for Licencing Authority and supervisor for the designated medical examiners.
- (b) Medical Assessor will normally be in charge of accredited medical conclusion therefore to evaluate the medical reports submitted to the Licencing Authority by DAMEs and making final assessment in borderline cases.
- (c) An important duty of the medical assessor is the safeguarding of medical confidentiality, although pertinent medical information may be present by the medical assessor to other officials of the Licensing Authority when justified by operational concerns or when an Accredited Medical conclusion is sought.
- (d) Medical Assessor shall audit to DAME periodically to ensure that they meet applicable standard for good medical practice and aero medical risk assessment [to see appendix 3 (a) (b)]

- (e) Also Medical Assessor has responsibility to do refresher training for DAME at least three yearly. The purpose of AME refresher course or seminars is to develop aero medically knowledgeable and clinically proficient AMEs committed to aviation safety.
- (f) Competent of medical examiner should be evaluated periodically by medical assessor. Competency – based training allows improved training of medical examiners that in turn results in increase aeromedical safety. Competency – based training imparts the skills, knowledge and attitude required to undertake a particular task, such as a medical examination, in a competent manner.
- (g) Also responsible for medical investigation of civil air craft accident.
- (h) Also responsible for the supervision and control of DAMEs and including enforcement action in case of DAME who would not perform his duties in accordance with prescribed procedures. AMEs designation should be suspended or terminated or not renewed or retraining or refresher courses are recommended for those AME. (see part I, 6.1 & 6.3of this manual)

## **5. APPLICATION PROCEDURES FOR DESIGNATION**

- (a) Expression of Intent. All applicants for the designation of AME shall apply in writing expressing the intent to practice as an AME and requesting to be licensed as a DCA designated AME. The application shall be made to the Flight Standards Division, Department of Civil Aviation,
- (b) First Correspondence from the Authority. On receipt of the informal application the requisite DCA AME designation application form (Appendix. 1) will be sent to the candidate along with the application checklist (Appendix. 2), checklist of required equipment (Appendix 4), and checklist for AME facility survey (Appendix 3-a,b), within a period of two working weeks.
- (c) Application. The applicant should fill the formal application form and return it to the Flight Standards Division, DCA, supplying all the necessary supporting documents.
- (d) Notification from DCA. After reviewing the documents the Flight Standards Division and Aviation Medical Section shall inform the applicant in writing of the disposal of his or her application. Processing of an AME application will be normally completed within two weeks from the date of formal application.
- (e) Facility Survey. Provided the candidate is selected for designation the Flight Standards Division will inform the candidate and will setup a date and time for the facility survey (for the checklist of facility survey consult Appendix 3).
- (f) Final Approval, once finally selected the following items shall be sent to the physician: Letter of approval from the DCA, Aviation medical Examiner Designation Card, facility approval certificate and the forms and supplies that are outlined in Appendix 5 of this DCA (MAM). AME Designation cards shall expire 3 years after the date issued.

## **6. ONGOING SURVEILLANCE**

- (a) Data on the adequacy of information on reports of medical examinations.
- (b) Error rate on reports of medical examinations.
- (c) AME interest and participation in aviation medical programme areas.
- (d) Reports from the aviation community concerning the AME's professional performance and personal conduct at it may reflect on the DCA.
- (e) Compliance with AME Training requirements.

### **6.1 Evaluation**

The DCA continuously evaluates the performance of each AME. The Licensing and the Aviation medical Department is responsible for developing and administering evaluation procedures to supply Licensing and Aviation medical Section with data to assist him in designating only those physicians who have demonstrated satisfactory performance in the past and who continue to show an interest in the AME programme. In addition, those AMEs committing serious certification errors will be identified and reported to the Director, Flight Standards Division so that appropriate retraining or refresher courses are recommended for these AME's. Information collected by the Licensing and Aviation medical Section includes but is not limited to the following:

### **6.2 AME Performance Reports**

The Licensing and Aviation Medical Section shall use the following reports in evaluating AMEs:

- (a) **AME Performance Summary.** The annual summary report of AME performance shall include the number of exams performed by class, the types of errors identified and their frequency, the total number and percentage of exams with errors, the number of error letters sent to the AME, and the number of certificates issued incorrectly to applicants by the AME. Other information such as AME interest or disinterest and participation in aero medical programme areas, reports from the aviation community, and information from law enforcement and medical licensing authorities that relate to the performance of AME duties, and any other pertinent information shall be reported to the Director, Flight Standards Division as soon as the data is compiled.
- (b) **AME Training Summary.** The early summary report of AME training shall include a listing of each AME who is due or past due for training.

### **6.3 Basis for Termination or Non-renewal of Designation**

Termination or non-renewal of designation may be based in whole or in part on the following criteria:

- (a) No examinations performed after 24 months of initial designation.
- (b) Performance of less than ten examinations per year to maintain proficiency.
- (c) Disregard of, or failure to demonstrate the knowledge of DCA rules, regulations, policies, and procedures.
- (d) Careless or incomplete reporting of the results of medical certification examinations.
- (e) Failure to comply with the mandatory AME training requirements.
- (f) Loss, restriction, or limitation of a licence to practice medicine.
- (g) Any action that compromises public trust or interferes with the AME's ability to carry out the responsibilities of his or her designation.
- (h) Any illness or medical condition that may affect the physician's sound professional judgment or ability to schedule or perform examinations.
- (i) Arrest, indictment, or conviction for violation of a law.
- (j) Request by the physician for termination of designation.
- (k) Any other reason the Flight Standards Division deems appropriate.

## **7. RENEWAL PROCEDUES**

### **7.1 General**

Thirty days before expiration of designation, the AME should apply to the Licensing and Aviation medical Section. AMEs who meets designation criteria, as certified by the Aviation medical Assessor will be informed and will be sent the AME certificate. In case of disqualification for renewal a letter of regret will be dispatched to the physician within a period of two weeks. Physicians whose completed for re-designation is not received within 30 days will not be redesignated. The Flight Standards Division shall be notified of those physicians who decline or fail to be re-designated.

### **7.2 Procedures for AME Reinstatement**

Reinstatement of a former AME or an AME relocating from one location to another, may be authorized at the discretion of the Chief of Licensing and Aero medical Section. However, the applicant shall meet the designation requirements including currency with AME training requirements.

## **8. TERMINATION OR NON-RENEWAL OF DESIGNATION**

### **8.1 General**

The Chief of Licensing and Aviation Medical Section may terminate or not renew an AME designation. When it is determined that an AME's designation should be terminated or not renewed in accordance with the criteria detailed in paragraph 6.3, the following procedures are applicable:

- (a) The AME will be notified in writing, by certified mail, with return receipt requested, of the reason(s) for the proposed action. The reasons shall be specific and shall cite applicable regulations, policies, and orders. The reasons shall be supported by objective evidence, but the evidence need not be included in the letter.
- (b) The written notification shall give the AME the option to respond to the aero medical Inspector, in writing or in person and within 15 days of the date of the letter.
- (c) The decision regarding the proposed action shall be in writing from the Chief of Licensing and Aero medical Section, as appropriate. It shall be sent by certified mail, with return receipt requested. When the decision is made not to renew or to terminate a designation, the reasons shall be stated.
- (d) In cases where an AME is suspected of fraud or any other activity for which immediate action is necessary, the Aviation medical Assessor will direct the AME in writing, by certified mail, with return receipt requested, to cease all further examinations pending further DCA investigation, and the AME must comply. The investigation shall be conducted expeditiously. Upon investigation of the matter, the Aviation Medical Assessor, will initiate termination action if such action is warranted in accordance with paragraphs (a) through (c) of this section.

### **8.2 Return of Material**

Upon termination or non-renewal of designation, the AME shall return all DCA material (including identification card and Certificate of Designation) to the Aviation medical Inspector. The Aviation medical Inspector shall take the necessary action if the material is not returned within a reasonable period of time.

### **8.3 Appeal Process**

The AME can appeal to the Authority within 15 days of the decision to terminate the designation. An investigation will be conducted by an appointee from the Authority's office and a decision would be made whether or not to reverse the previous decision. During all this period the AME would not be eligible to practice his/her licence. They could however retain the DCA stamp and any other documents till the final outcome of the process.

## **9. REQUIRED AME TRAINING**

### **9.1 General**

The Aviation medical Assessor is responsible for developing an AME training curriculum and lesson plan. In general, the curriculum shall include instruction on paperwork management, completion of forms, regulatory and policy administration, and review of other pertinent information. The Licensing and Aviation medical Section, shall forward letters of invitation to AME Seminars to AMEs due for recurrent training. When training has been successfully completed, certificates of completion of training shall be issued to each attendee by the Flight Standards Division.

### **9.2 Aviation Medical Examiner Seminars**

The purpose of AME Seminars is to develop aero medically knowledgeable and clinically proficient AMEs committed to aviation safety. They are also designed to provide standardization in the application of medical certification policies, procedures, and regulations.

**AEROMEDICAL EXAMINER DESIGNATION APPLICATION**

INITIAL/ RENEWAL .....

- 1. NAME (*Last, first, middle*)
- 2. DATE OF BIRTH (*Day/mo/yr*)
- 3. NATIONALITY
- 4. ADDRESS WHERE EXAMINATIONS WILL BE PERFORMED NAME OF CLINIC ADDRESS
- 5. OFFICE TELEPHONE NUMBER (with area code)
- 6. MEDICAL SPECIALTY
- 7. WERE YOU EVER DESIGNATED AN AVIATION MEDICAL EXAMINER  
YES /NO
- 8. NUMBER OF POSTGRADUATE YEARS IN CLINICAL PRACTICE
- 9. QUALIFIED IN AEROSPACE/ AVIATION MEDICINE  
YES /NO
- 10. MILITARY FLIGHT SURGEON EXPERIENCE  
YES/\_NO
- 11. AVIATION EXPERIENCE PILOT YES/\_NO ANY OTHER
- 12. LICENCE TO PRACTICE MEDICINE IN OVERSEAS .....MINISTRY OF HEALTH  
YES/\_NO

CERTIFICATION:

*I certify that the information provided hereon and in attachments is correct to the best of my knowledge and belief and if granted I hereby accept the authority, duties, and responsibilities as mentioned in the DCA,DCA(MAM) and shall conduct such activities in compliance of the directives of the.*

SIGNATURE\_\_\_\_\_

DATE\_\_\_\_\_



**APPENDIX 2****CHECKLIST FOR AME APPLICATION INITIAL/RENEWAL**

At the time of application for designation, the physician shall submit a completed DCA, Aviation Medical Examiner Designation Application, and the following documents or copies thereof:

- (a) Postgraduate from medical institute.
- (b) Certificate of any postgraduate professional training (e.g., internship, residency, fellowship).
- (c) Current detailed CV with photocopies of supporting documents.
- (d) Certificates of any Aviation Medicine courses.
- (e) If previously designated as an AME under any Civil Aviation Authority, a photocopy of the certificate.
- (f) In case of military service, the respective documents, any discharge certificate if applicable.
- (g) Licence(s) to practice medicine.
- (h) Colour photographs with a blue background, passport size and three in number, front view, without glasses or headwear.

**APPENDIX 3 (a)****AME FACILITY SURVEY CHECKLIST**

Every medical facility intended for use by the AME to conduct aero medical exams has to be certified by the DCA for the following. The certification will be for a period of three years and renewable every three years.

- (a) It should be a permanent medical facility, which is approved by the Ministry of Health standards.
- (b) There should be at least one DCA designated AME available to function at each facility.
- (c) All the required equipment mentioned in Appendix 2 should be available in current calibration and good working order.
- (d) Laboratory equipment, facilities and trained laboratory staff should be available to perform the necessary testing for the routine aviation medicals namely blood and urine tests. Each test with control samples should be available to support the calibration of the test equipment. Additional laboratory facilities must either be available on the same premises or within a reasonable driving distance from the main facility.
- (e) X-Ray facilities with trained and certified technical staff must be available either on premises or within a reasonable driving distance from the main facility.

## APPENDIX 3(b)



**DEPARTMENT OF CIVIL AVIATION (MYANMAR)**  
**Audit to Designated Aviation Medical Examiner Checklist**

Date	Name	ME No	Address	Phone No	E-mail
<b>Date of last Audit:</b>			<b>Due date for Audit:</b>		

**Investigation Centre** \_\_\_\_\_

**S=Satisfactory; U=Unsatisfactory**

	S	U		S	U
<b>A. Designated Medical</b> <b>Examine Qualification</b> 1. Degree of M.B,M.S 2. Qualification in Aerospace or Aviation Medicine 3. Previous experience as an aviation medical examiner 4. Certificate for Basic and Advanced course in Aviation Medicine 5. Certificate of Refresher or Workshop of Aviation Medicine <b>B. Calendar for pilot</b> <b>C. Diagnostic Centre</b> <b>D. Deferred case / Problem case</b> <b>E. Facilities &amp; Equipment</b> 1. Sphygmomanometer 2. Urine Test Strips 3. Weighing Machine 4. Otoscope 5. Tuning Fork 6. Jerk Hammer			7. Ishihara Plate 8. Stethoscope 9. Far and Near Vision Testing Equipment 10. Fundoscope 11. Audiogram 12. Oxygen Cylinder 13. Wheel Chair 14. Stretcher <b>F. Staff Strength Qualification</b> <b>G. Documents List</b> 1. Annex 1 (Personal Licensing) 2. Manual of Aviation Medicine (Doc 8984) 3. MCAR Part 2 (Personal Licensing) 4. Myanmar Aircraft Manual 5. Manual of Aviation Medicine 6. Medical Examination Forms (CA – 118, CA – 120)		

**Remarks**

<b>OVERALL RESULT;</b> <b>SATISFACTORY/UNSATISFACTORY</b>	<b>ASSESSOR SIGNATURE:</b>  <b>NAME:</b>  <b>DATE :</b>
<b>OVERALL RESULT;</b> <b>SATISFACTORY/UNSATISFACTORY</b>	<b>DIRECTOR (FSD) SIGNATRUE:</b>  <b>NAME:</b>  <b>DATE :</b>

**CHECKLIST OF REQUIRED EQUIPMENT**

All AMEs shall possess, in current calibration and good working order, all the necessary equipment to conduct an aero medical assessment, including but not limited to:

- (a) **Standard far and Near Vision Testing Equipment** utilizing standard printed eye charts or electronic vision testing equipment.
- (b) **Colour Vision Test Apparatus.** Ishihara, Concise 14 -, 24 -; or 38-plate editions;
- (c) **Standard physician diagnostic instruments and aids.**
- (d) **Electrocardiographic equipment.**
- (e) **Audiometric equipment.** All Aviation Medical Examiners must have access to audiometric equipment or a capability of referring applicants to other medical facilities for audiometric testing.

**CHECKLIST OF FORMS AND SUPPLIES**

- (a) Myanmar Civil Aviation Requirements, *MCAR Part-2, Flight Crew Licensing*
- (b) Manual of Aviation Medicine (Second Edition, 2013)
- (c) A.M.E Designation Card.
- (d) AME stamp.
- (e) DCA Form CA-118, Civil Aviation Medical Examination Report.
- (f) Medical Certificate form (DCA form CA-120).



**DEPARTMENT OF CIVIL AVIATION, MYANMAR  
INITIAL/RENEWAL/SPECIAL  
MEDICAL EXAMINATION**

Medical Examination held at \_\_\_\_\_ Date \_\_\_\_\_

NOTE – This form duly completed, should be forwarded by the MEDICAL EXAMINER IMMEDIATELY after the examination to Department of Civil Aviation, Yangon International Airport.

**ON NO ACCOUNT SHOULD THE FORM AFTER COMPLETION BE HANDED TO THE EXAMINEE  
I. – PARTICULARS TO BE ENTERED BY THE EXAMINEE**

Name of Examinee (Block Letters) \_\_\_\_\_

State Title or Rank or whether Mr. Mrs. or Miss \_\_\_\_\_

Address (Block Letters) \_\_\_\_\_

Place and Date of Birth \_\_\_\_\_ Telephone No. \_\_\_\_\_

Number or hours flown: Total \_\_\_\_\_ Since last Examination \_\_\_\_\_

Nature of recent flying duties and by whom employed \_\_\_\_\_

Types of aircraft flown since last examination \_\_\_\_\_

Class of licence required in respect of this examination \_\_\_\_\_

Date of expiry of current licence \_\_\_\_\_

**II. CERTIFICATE TO BE COMPLETED BY THE EXAMINEE  
(IN THE PRESENCE OF AND WITNESSED BY THE MEDICAL EXAMINER)**

I certify that I was last previously medically examined in connection with my \_\_\_\_\_ licence on about \_\_\_\_\_ at \_\_\_\_\_, as a result of which examination I was assessed fit/unfit to serve as \_\_\_\_\_, since when I have not been involved in any accident nor suffered from any illness or disability except \_\_\_\_\_ which occurred on or about \_\_\_\_\_.

*Declaration: I hereby declare that I carefully considered the statements made above and to the best of my belief they are complete and correct and that I have not withheld any relevant information or made any misleading statement. I understand that if I have made any false or misleading statement in connection with this application or fail to release the supporting medical information; the authority may refuse to grant me a medical certificate or may withdraw any medical certificate granted without prejudice to any other action applicable under national law. CONSENT TO RELEASE OF MEDICAL INFORMATION: I hereby authorize the release of all information contained in this report and any or all attachments to the aero medical section and where necessary to airline authority recognizing that these documents or electronically stored data are to be used for completion of a medical assessment and will become and maintain the property of the Authority providing that I or my physician may have access to them according to national law. Medical confidentiality will be respected at all times.*

Signature of the person examined \_\_\_\_\_

Date: \_\_\_\_\_

Witness \_\_\_\_\_

Medical Examiner

Address \_\_\_\_\_

Telephone Number \_\_\_\_\_

**GENERAL MEDICAL AND SURGICAL EXAMINATION**

Height (without footwear) inches \_\_\_\_\_

Weight (without clothes) lbs. \_\_\_\_\_

Anybody Marks, Scars or Deformities \_\_\_\_\_

Any evidence of Wounds, Injuries or Operations \_\_\_\_\_

Any Thyroid enlargement \_\_\_\_\_

Any evidence of Splenic, Hepatic or Glandular enlargement \_\_\_\_\_

Any evidence of Metabolic, Nutritional or Endocrine disorder \_\_\_\_\_

Any evidence of Hernia, Varicose Veins, Hydrocele or Varicocele \_\_\_\_\_

Any abnormality of movement of the Joints \_\_\_\_\_

Any abnormality Skin condition \_\_\_\_\_

Chest circumference on Inspiration \_\_\_\_\_ on Expiration \_\_\_\_\_

Impression given by Physique \_\_\_\_\_

Any evidence of Alcoholic Intemperance or Drug Addiction \_\_\_\_\_

Pulse rate: Sitting \_\_\_\_\_ standing \_\_\_\_\_

Condition of Arterial Walls \_\_\_\_\_

Blood Pressure : Systolic \_\_\_\_\_ Diastolic \_\_\_\_\_

Heart \_\_\_\_\_ Size \_\_\_\_\_ Sounds \_\_\_\_\_ Rhythm \_\_\_\_\_

Any evidence of abnormality of the Cardio-vascular System \_\_\_\_\_

Any evidence of abnormality of the Respiratory System \_\_\_\_\_

Result of X-ray of the chest (only if considered advisable) \_\_\_\_\_

Result of Electro-encephalographic examination, if carried out \_\_\_\_\_

Result of Electro-cardio graphic examination, if carried out \_\_\_\_\_

Any evidence of abnormality of the Nervous System \_\_\_\_\_

Reflexes: Knee \_\_\_\_\_ Ankle \_\_\_\_\_ Triceps \_\_\_\_\_ Abdominal \_\_\_\_\_ planter \_\_\_\_\_

Any evidence of Cranial Injury \_\_\_\_\_

Cranial Nerves \_\_\_\_\_

Tremors \_\_\_\_\_ Fingers \_\_\_\_\_ Eyelids \_\_\_\_\_

Any evidence of Psychiatric Disturbance \_\_\_\_\_

Any evidence of abnormality of the Alimentary System \_\_\_\_\_

Any evidence of abnormality of the Uro-genital System \_\_\_\_\_

Result of examination of Urine \_\_\_\_\_

Albumen \_\_\_\_\_ Sugar \_\_\_\_\_ Any other abnormal constituents \_\_\_\_\_

**Additional remarks by the Medical Examiner**

**Date:** \_\_\_\_\_

**Signature** \_\_\_\_\_



**EAR, NOSE AND THROAT EXAMINATION**

Any previous relevant history of Ear, Nose or Throat trouble \_\_\_\_\_

Is there any evidence of disease, injury or malformation of the External Ear, The Meatus, the Tympanic membrane of the Eustachian Tubes \_\_\_\_\_

Is there any evidence of past or present Middle Ear disease or abnormality \_\_\_\_\_

Is there any evidence of past or present Mastoid infection \_\_\_\_\_

Is there any evidence of abnormality of the Cochlear apparatus \_\_\_\_\_

Or of the Vestibular apparatus \_\_\_\_\_

Is there any evidence of disease injury or malformation of the - Teeth Healthy

Buccal Cavity \_\_\_\_\_

The Gums \_\_\_\_\_

The Pharynx \_\_\_\_\_

The Larynx \_\_\_\_\_

The Nose \_\_\_\_\_

The Nose- pharynx \_\_\_\_\_

The Nasal Accessory Sinuses \_\_\_\_\_

8 7 6 5 4 3 2 1	1 2 3 4 5 6 7 8
8 7 6 5 4 3 2 1	1 2 3 4 5 6 7 8

Is there any evidence of speech impediment \_\_\_\_\_

**Auditory Acuity-**

At what distance can a forced whisper be heard (in a quiet room) in the Right Ear 3 feet

In the Left Ear 3 feet.

Can an average conversational voice be heard (in a quiet room) using both ears at a distance of eight feet with his back turned toward the examiner \_\_\_\_\_

The record of a pure tone audiogram (if available)

R.E	FREQUENCIES	L.E
	4,000	
	3,000	
	2,000	
	1,000	
	500	

The result of Weber's Test \_\_\_\_\_

The result of Rinne's Test \_\_\_\_\_

Additional remarks by the Medical Examiner

NAD

Date : \_\_\_\_\_

Signature \_\_\_\_\_

**EYE EXAMINATION**

Any previous relevant history of eye trouble \_\_\_\_\_

Is there any evidence of disease or of the injury to the eyes \_\_\_\_\_

Is there any evidence of disease or abnormality of the Lids, the Lachrymal Apparatus or the Orbit \_\_\_\_\_

Is there any evidence of abnormality of the Ocular Fundus or Media \_\_\_\_\_

Is there any evidence of deficiency in the power of Convergence \_\_\_\_\_

Is there any lack of Accommodative power \_\_\_\_\_

Is there any evidence of manifest or latent squint or other disorder of movement of the eyes \_\_\_\_\_

Visual Acuity:

For Distance	Without glasses	R.E. _____	L.E. _____
		With glasses	R.E. _____ L.E. _____
Near Vision	Without glasses	R.E. _____	L.E. _____
		With glasses	R.E. _____ L.E. _____

Is there any limitation of the fields of Vision \_\_\_\_\_

Prescription of glasses if worn for distance of vision \_\_\_\_\_

What is the measure of his Manifest Hypermetropia, if present \_\_\_\_\_

R.E. \_\_\_\_\_ L.E. \_\_\_\_\_

NOTE-If the candidate requires correcting glasses to bring his vision up to the required standard does he possess glasses suitable for the purpose \_\_\_\_\_

Colour Vision: (For Initial Examination Only) \_\_\_\_\_

Is this normal as tested by Pseudo-isochromatic (Ishihara) type plates \_\_\_\_\_

If abnormal is he able to distinguish readily the colours display by a Giles-Archer or Martin colour perception lantern in a completely darkened room \_\_\_\_\_

Additional remarks by the Media Examiner: -

Date : \_\_\_\_\_

Signature \_\_\_\_\_

**OVSERVATIONS AND FINDINGS**

Date : \_\_\_\_\_

Signature \_\_\_\_\_

Name \_\_\_\_\_

\_\_\_\_\_  
\*President of Medical Board/Approved Medical Examiner

(This Space to be left blank for assessment by the Department of Civil Aviation.)

Date : \_\_\_\_\_

Signature \_\_\_\_\_

*of Medical Officer*

CA 120

**Department of Civil Aviation Myanmar  
MEDICAL CERTIFICATE**

Valid Until : .....  
Licence Number : .....  
I, the Undersigned, being a person approved by the  
Department of Civil Aviation Myanmar to issue  
Medical Certificate assess that  
Full Name : .....  
Meets the Standards for a CLASS .....  
Medical Certificate .  
Limatations :

Singnature  
Name .....  
Date (of Signing) .....

Notes:

1. Holders of a class 1(one)medical certificate ,are also entitle for a class 2(two)medical validity,for those operations requiring only a class 2(two)medical certificate.
2. The Renewal of the Medical Certificate can be obtained in the period commencing one calendar month before expiry. The medical examination should be performed as early in the period as possible.
3. The following special examination(s) should be compled on or before the end of the month shown.
 

Electrocardiogram	-
Chest X-ray	-
Ultrasound	-

**APPENDIX 6(a)**

**CHECKLIST FOR BASIC TRAINING FOR AME**

Basic training in aviation medicine for DAMEs shall include at least the following:

- (1) Basic training in aviation medicine.
- (2) Physics of atmosphere and space.
- (3) Basic aeronautical knowledge.
- (4) Aviation Physiology.
- (5) Ophthalmology.
- (6) Otorinolaryngology.
- (7) Cardiology and general medicine.
- (8) Neurology.
- (9) Psychiatry in aviation medicine.
- (10) Psychology.
- (11) Dentistry.
- (12) Accidents, Escape and Survival.
- (13) Legislation, rules and regulations.
- (14) Air evacuation.
- (15) Medicine and flying.

**APPENDIX 6(b)**

**CHECKLIST FOR ADVANCED TRAINING FOR AME**

Advanced training in aviation medicine for DAMEs shall include the following:

- (1) Pilot working environment.
- (2) Aerospace physiology.
- (3) Ophthalmology.
- (4) Otorinolaryngology.
- (5) Cardiology and general medicine.
- (6) Neurology/Psychiatry.
- (7) Human factors in aviation.
- (8) Tropical medicine.
- (9) Hygiene.
- (10) Space medicine.

**APPENDIX 7****MEDICAL ASSESSMENT CHECKLIST**

	<b>CLASS 1</b>	<b>CLASS 2</b>	<b>CLASS 3</b>	<b>CABIN CREW</b>
<b>FREQUENCY (Months)</b>	<b>ATPL, CPL</b>	<b>PPL, SPL</b>	<b>ATC</b>	
<b>Under 40</b>	12, 12	60	48	12
<b>Over 40</b>	6, 6	24	24	12
<b>Over 60</b>	3, 3	Over 50 - 12	12	
<b>INITIAL MEDICAL</b>	ECG, X-Ray, Eye, Audio, Blood Test, USG Abdomen	ECG, X-Ray, Eye, Audio, Blood Test, USG Abdomen	ECG, X-Ray, Eye, Audio, Blood Test, USG Abdomen	ECG, X-Ray, Eye, Audio, Blood Test, USG Abdomen
<b>RENEWAL</b>				
<b>ECG</b>	Every 12 months	Every Renewal	Every Renewal	Every Renewal
<b>X-Ray</b>	When Clinically Indicated, Every 12 months	When Clinically Indicated, Every renewal	When Clinically Indicated, Every renewal	When Clinically Indicated, Every renewal
<b>EYE</b>	Every Renewal	Every Renewal	Every Renewal	Every Renewal
<b>AUDIO</b>	Every 5 years	Every 5 years	Every 5 years	Voice test only
<b>BLOOD TEST</b> <i>(Infectious disease)</i>	When Clinically Indicated	When Clinically Indicated	When Clinically Indicated	Every Renewal



**DEPARTMENT OF CIVIL AVIATION (MYANMAR)**  
**Air Operator Cockpit En-route Medical Inspection Checklist/ Report**

**Appendix 8**

<b>Operator</b>	<b>Date</b>	<b>Location</b>	<b>Inspector</b>

**S = Satisfactory; U = Unsatisfactory;**

	<b>OVERALL OBSERVATION</b>	<b>S</b>	<b>U</b>
1	General Health Condition		
2	Mood and Behavior		
3.	Crew Resource management		
4.	Flight Deck and Cabin Crew Condition		
5.	First Aid Facilities		

<b>COMMENTS:</b>	
<b>OVERALL RESULT:</b>  SATISFACTORY / UNSATISFACTORY	<b>ASSESSOR SIGNATURE:</b>  NAME:  DATE :
<b>OVERALL RESULT;</b>  SATISFACTORY/UNSATISFACTORY	<b>DIRECTOR (FSD) SIGNATURE:</b>  NAME:  DATE :

## **PART II THE MEDICAL EXAMINATIONS AND REQUIREMENT**

- 1. Introduction**
- 2. Medical Assessment**
- 3. Class of Medical Assessment**
- 4. Validity of Medical Certificate**
- 5. Decreases in Medical Fitness**
- 6. Use of Psychoactive Substance**
- 7. Special Circumstance**
- 8. Requirements for Medical Assessments**
  - 8.1.1 Physical and mental requirements
  - 8.1.2 (a) Visual acuity test requirements
  - 8.1.2 (b) Color perception requirements
  - 8.1.3 Hearing Test Requirements



## **PART II**

### **MEDICAL EXAMINATION AND REQUIREMENTS**

#### **1. INTRODUCTION**

The licencing requirements of medical fitness for the issue of various types of licences, the applicant shall need certain appropriate medical requirements.

#### **2. MEDICAL ASSESSMENT**

It is defined as the evidence issued by a contracting State that the license holder meets specific requirements of medical fitness. Medical Assessment is used about the medical certificate (incase where such a document is issued), about endorsement of a license to the effect that the holder meets the medical requirements, or about the aviation license when medical fitness is implied in holding a valid license.

#### **3. CLASSES OF MEDICAL ASSESSMENT**

The DAME shall be responsible for the conduct of class I, class II, class III and cabin crew medical assessment and the completion of medical certification.

Three classes of Medical Assessment shall be established as follows;

a) Class I 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 power-lift

b) Class II Medical Assessment

Applies to applicants for, and holders of:

- Private pilot licences – aeroplane, airship, helicopter and powered-lift
- Glider pilot licences
- Free balloon pilot licences

c) Class III Medical Assessment

Applies to applicants for, and holders of:

- Air traffic controller licences

#### **4. VALIDITY OF MEDICAL CERTIFICATE**

Medical Assessment issued shall be valid from the date of medical examination for a period not greater than.

##### **4.1 The validity period of the medical certificate shall be:**

- i) 12 months for the Class I for the CPL and ATPL licences
- ii) 60 months for the Class II for the SPL and PPL licences
- iii) 48 months for the Class III for the air traffic controller licences

##### **4.2 The exception for the validity period of the medical certificate are:**

4.2.1 When the holders have passed their 40<sup>th</sup> birthday:

- (i) The 60 month interval specified for the SPL, PPL and air traffic controller licences shall be reduced to 24 months; and
- (ii) The 12 month interval specified for the CPL and ATPL shall be reduced to 6 months.

4.2.2 When holders have passed their 50<sup>th</sup> birthday:

- (i) The 24 month interval specified for the SPL, PPL and air traffic controller licences shall be reduced 12 months.

4.2.3 When holders have passed their 60<sup>th</sup> birthday:

- (i) The 6 month interval specified for the CPL and ATPL shall be reduced to 3 months.

**4.3** For initial issuance of the medical certificate, the period of validity shall begin on the date the medical examination is performed. The period of validity shall for the last month counted, include the day that has DAME calendar number as the date of the medical examination or, if that month has no day with that number, the last day of that month.

**4.4** The period of validity of a Medical Certificate may be extended at the discretion of the Licensing DCA, up to 45 days.

**4.5** Regardless of the validity periods stated above - the medical assessor may in an individual case require this period to be shortened. The period of validity of a Medical Assessment may be reduced when clinically indicated.

**4.6** A medical condition, although compatible with licensing may be of a nature when frequent medical check-ups are required. In such case the period of validity of the Medical Assessment may be reduced so as to ensure adequate monitoring of the condition in question.

## 5. DECREASES IN MEDICAL FITNESS

- (a) Holders of licences shall not exercise the privileges of their licences and related ratings at any time, when they are aware of any decrease in their medical fitness which might render them unable to safely and properly exercise these privileges.
- (b) Licence holders should inform the licensing Authority of confirmed pregnancy or any decrease in medical fitness of a duration of more than 20 days or which requires continued treatment with prescribed medication or which has required hospital treatment.
- (c) Licence holders do not exercise the privileges of their licence and related ratings during any period in which their medical fitness has, from any cause, decreased to an extent that would have prevented the issue or renewal of their Medical Assessment.
- (d) If there is a decrease in medical fitness attributable to the effects of undercurrent disease, injury, alcohol or other psychoactive substances, medication, fatigue, sleep disturbances due to time zone changes, adverse climate conditions and disrupted regular work, rest schedules which might render the holder of a licence or rating incapable of meeting the medical requirements of his licence or rating.
- (e) It is clearly important that licence holders are aware of those medical conditions that may affect flight safety, both immediately and in the long term, so that, if they have developed a medical condition, they know when to seek medical help, and when to cease flying. Licensing Authorities may wish to place more or less emphasis on particular aspects of fitness for holders of licences issued by their State, depending on the prevalence of particular diseases in their licence holders.
- (f) The following conditions as requiring advice from a designated medical examiner before a return to operations can be considered.
  - (1) any surgical operation
  - (2) any medical investigation with abnormal results
  - (3) any regular use of medication
  - (4) any loss of consciousness
  - (5) kidney stone treatment by lithotripsy
  - (6) coronary angiography

- (7) transient ischemic attack
- (8) abnormal heart rhythms including atrial fibrillation/flutter

## 6. USE OF PSYCHOACTIVE SUBSTANCE

- (a) In the context of aviation, any use of psychoactive, even when prescribed in accordance with best medical practice for a medical condition and used in amounts that allow normal daily activities to be carried out as usual, is likely to jeopardize flight safety.
- (b) Psychoactive substances - Alcohol, opioids, cannabinoids, sedatives and hypnotics, cocaine, other psychostimulants, hallucinogens, and volatile solvents, whereas coffee and tobacco are excluded.
- (c) Any person who has recently taken a psychoactive substance (such as some alcohol) and for that reason is temporarily unsafe.
- (d) Problematic use of substances person who is a habitual user of psychoactive substances by aviation personnel in way that:
  - (1) Constitutes a direct hazard to the user or endangers the lives, health of welfare of others, and /or
  - (2) causes or worsens an occupational, social , mental or physical problem or disorder.
- (e) Holders of licences 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.
- (f) Holder of licences shall not engage in any problematic use of substances.
- (g) Contracting States should ensure, as far as practicable, that all licence holders who engage in any kind of problematic use of substances are identified and removed from their safety-critical functions. Return to the safety-critical functions may be considered after successful treatment or, in cases where no treatment is necessary, after cessation of the problematic use of substances and upon determination that the person's continued performance of the function is unlikely to jeopardize safety.
- (h) Which may include biochemical testing on such occasions as pre-employment, upon reasonable suspicion, after accidents / incidents, at intervals, and at random.

## 7. SPECIAL CIRCUMSTANCE

- (a) If the medical Standards for a particular licence are not met, the appropriate Medical Assessment shall not be issued or renewed unless the following conditions are fulfilled:
- (1) accredited medical conclusion indicates that in special circumstances the applicant's failure to meet any requirement, whether numerical or otherwise, is such that exercise of the privileges of the licence applied for is not likely to jeopardize flight safety;
  - (2) relevant ability, skill and experience of applicant and operational conditions have been given due consideration; and
  - (3) 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.
- (b) 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 Licensing Authority, provided that such deferment shall only be made as an exception and shall not exceed:
- (1) a single period of six months in the case of a flight crew member of an aircraft engaged in non-commercial operation;
  - (2) two consecutive periods each of three months in the case of a flight crew member of an aircraft engaged in commercial operations provided that in each case a favorable medical report is obtained after examination by a designated medical examiner of the area concerned or, in cases where such a designated medical examiner is not available, by a physician legally qualified to practice medicine in that area. A report of the medical examination shall be sent to the Licensing Authority where the licence was issued;
  - (3) in the case of a private pilot, a single period not exceeding 24 months where the medical examination is carried out by an examiner designated by the Contracting State in which the applicant is temporarily located. A report of the medical examination shall be sent to the Licencing Authority where the licence was issued.

## **8. REQUIREMENTS FOR MEDICAL ASSESSMENTS**

### **8.1 General**

An applicant for a Medical Assessment shall undergo a medical examination based on the following requirements:

- (i) Physical and mental
- (ii) Visual and color perception
- (iii) Hearing

#### **8.1.1 Physical and mental requirements**

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

- (a) any abnormality, congenital or acquire; or
- (b) any active, latent, acute or chronic disability ; or
- (c) any wound, injury or squeal from operation; or

#### **8.1.2 (a) Visual acuity test requirements**

The following should be adopted for tests of visual acuity:

- (i) 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>)
- (ii) Visual acuity should be measured by means of a series of Landl to rings or similar onto types, placed at a distance from the applicant appropriate to the method of testing adopted.

#### **8.1.2 (b) Color perception requirements**

- (i) 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.
- (ii) The applicant shall be tested for the ability to correctly identify a series of Pseudo is achromatic plates in daylight or in artificial light of the same colour temperature such as that provided by CIE standard illuminants CorD<sub>65</sub> as specified by the International Commission on Illumination(CIE).
- (iii) An applicant obtaining a satisfactory result as prescribed by the Licensing Authority shall be assessed as fit. An applicant failing to

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

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

### **8.1.3 Hearing Test Requirements**

- (a) Applicants shall be required to demonstrate hearing performance exercise of the licence and rating privileges.
- (b) The hearing test may be conducted using a pure tone audiometer or alternate method that will provide equivalent results. This test shall be performed at the first medical examination and then at specified intervals according to the class of medical examination and age of the applicant.
- (c) If a pure tone audiometer is used, the reference zero for calibration is that of the International Organization for Standardization (ISO) Recommendation R389, 1964.
- (d) For hearing tests where eudiometry is not performed, applicants shall be tested in a quiet room by whispered and spoken voice tests under the following conditions.
  - (a) A quiet room is a room in which the intensity of the background noise is less than 35dB (A) when measured on “slow” response of an “A-weighted sound level meter.
  - (b) The sound level of an average conversational voice at 1m from the point of output is 60 dB (A) and that of a whispered voice is 45dB (A). At 2 m from the speaker, the sound is 6 dB (A) lower.
- (e) The holder of a PPL with a instrument rating shall meet the hearing requirements for the Class 1 medical certificate.

## **PART III – CLASS 1 MEDICAL REQUIREMENT**

- 1. Physical and Mental Requirements**
- 2. Visual Acuity Test Requirements**
- 3. Color Perception Requirements**
- 4. Hearing Test Requirements**



**PART III**  
**CLASS 1 MEDICAL REQUIREMENT**

**1 PHYSICAL AND MENTAL REQUIREMENT**

**1.1.1** 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.

**1.2** 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.

**1.2.1** An applicant with depression, being treated with antidepressant medication, should be assessed as unfit unless the CAMB, having access to the details of the case concerned, considers the applicant's condition as unlikely to interfere with the safe exercise of the applicant's licence and rating privileges.

**1.3** 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.

**1.4** 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.

**1.5** 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.

**1.5.1** 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.

**1.5.2** 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.

**1.6** Electrocardiography shall form part of the heart examination for the first medical examination.

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

**1.6.2** Electrocardiography shall be included in re-examinations of applicants between the ages of 30 and 50 no less frequently than every 2 years.

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

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

- 1.7.1** 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.
- 1.8** There shall be no significant functional nor structural abnormality of the circulatory system.
- 1.9** There shall be no acute disability of the lungs nor any active disease of the structures of the lungs, mediastinum or pleurae likely to result in incapacitating symptoms during normal or emergency operations.
- 1.9.1** Chest radiography shall 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.*
- 1.10** 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.
- 1.11** Applicants with asthma causing significant symptoms or likely to cause incapacitating symptoms during normal or emergency operations shall be assessed as unfit.
- 1.11.1** 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.
- 1.12** Applicants with active pulmonary tuberculosis shall be assessed as unfit.
- 1.12.1** Applicants with quiescent or healed lesions which are known to be tuberculous, or are presumably tuberculous in origin, may be assessed as fit.
- 1.13** Applicants with significant impairment of function of the gastrointestinal tract or its adnexa shall be assessed as unfit.
- 1.13.1** Applicants shall be completely free from those hernias that might give rise to incapacitating symptoms.
- 1.14** 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.

**1.14.1** 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 shall be assessed as unfit until such time as the medical assessor, having access to the details of the operation concerned, considers that the effects of the operation are not likely to cause incapacitation in flight.

**1.15** 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.

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

**1.16.1** 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.

**1.17** 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.*

**1.18** 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.

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

**1.19** Applicants with sequelae of disease of or surgical procedures on the kidneys or the genitourinary 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.

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

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

**Note1.** *Early diagnosis and active management of HIV disease with antiretroviral therapy reduces morbidity and improves prognosis and thus increase the likelihood of a fit assessment.*

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

**1.21.1** For applicants with a low-risk uncomplicated pregnancy, evaluated and supervised in accordance with paragraph 1.22, the fit assessment shall be limited to the period from the end of the 12th week until the end of the 26th week of gestation.

**1.22** 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 to exercise the privileges of her licence and ratings.

**1.23** 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.*

**1.24** 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.

- 1.25** 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.
- 1.25.1** A single dry perforation of the tympanic membrane need not render the applicant unfit.
- 1.26** 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.
- 1.27** Applicants with stuttering or other speech defects sufficiently severe to cause impairment of speech communication shall be assessed as unfit.
- 2. VISUAL ACUITY TEST REQUIREMENTS**
- 2.1** Each eye of the applicant will be tested separately. The methods of testing visual acuity shall be as follows:
- (a) visual acuity tests shall be conducted in an environment with a level of illumination which corresponds to ordinary office illumination (30-60 cd/m<sup>2</sup>);
  - (b) visual acuity shall be measured by means of a series of Landolt rings, or similar optotypes, placed at a distance from the applicant, as appropriate to the method of testing adopted.
- 2.2** The function of the eyes and their adnexa shall be normal. There shall be no active pathological condition, acute or chronic, or any sequelae of surgery or trauma of the eyes or their adnexa likely to reduce proper visual function to an extent that would interfere with the safe exercise of the applicant's licence and rating privileges.
- 2.3** 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 the Civil Aviation Medical Board. 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.*

**2.3.1** 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.*

**2.3.2** 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 minimise peripheral field distortion.*

**2.3.3** 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 Examination and every five years thereafter.

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

**2.4** 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.

- 2.5** The applicant shall have the ability to read, while wearing the correcting lenses, if any, required by paragraph 2.3, 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 paragraph 2.3; if no such correction is prescribed, a pair of spectacles for near use shall be kept readily available during the exercise of the privileges of the licence. When near correction is required, the applicant shall demonstrate that one pair of spectacles is sufficient to meet both distant and near visual requirements.

*Note 1*            *N5 and N14 refer to the size of typeface used.*

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

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

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

- 2.6** The applicant shall be required to have normal fields of vision.

- 2.7** The applicant shall be required to have normal binocular function.

- 2.7.1** 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.



### 3 COLOUR PERCEPTION REQUIREMENTS

- 3.1** The applicant shall be required to demonstrate the ability to perceive readily those colours the perception of which is necessary for the safe performance of duties.
- 3.2** 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).
- 3.3** An applicant obtaining a satisfactory result as prescribed by the evaluating medical examiner 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.
- 3.3.1** Sunglasses worn during the exercise of the privileges of the licence or rating held shall be non-polarising and of a neutral grey tint.

### 4 HEARING TEST REQUIREMENTS

- 4.1** The applicant shall be required to demonstrate a hearing performance sufficient for the safe exercise of their licence and rating privileges.
- 4.2** The applicant shall be tested by pure-tone audiometry at first issue of the licence, not less than once every five years up to the age of 40 years, and thereafter not less than once every two years.
- 4.2.1** Alternatively, other methods providing equivalent results may be used.
- 4.3** At medical examinations, other than those mentioned in paragraph 4.2, where audiometry is not performed, applicants shall be tested in a quiet room by whispered and spoken voice tests.

**Note 1.** *For the purpose of testing hearing in accordance with the requirements, a quiet room is a room in which the intensity of the background noise is less than 35 dB(A).*

**Note 2** *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.*

**4.4** 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.

**4.4.1** 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.

**Note 1** It is important that the background noise be representative of the noise in the cockpit of the type of aircraft for which the applicant's licence and ratings are valid.

**Note 2** In the speech material for discrimination testing, both aviation-relevant phrases and phonetically balanced words are normally used.

**4.4.2** 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.

## **PART IV – CLASS 1 MEDICAL REQUIREMENT**

- 1. Physical and Mental Requirements**
- 2. Visual Acuity Test Requirements**
- 3. Color Perception Requirements**
- 4. Hearing Test Requirements**

**PART IV**  
**CLASS 2 MEDICAL REQUIREMENTS**

**1 PHYSICAL AND MENTAL REQUIREMENTS**

**1.1** 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.

**1.2** 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.

**1.2.1** An applicant with depression, being treated with antidepressant medication, should be assessed as unfit unless the CAMB, having access to the details of the case concerned, considers the applicant's condition as unlikely to interfere with the safe exercise of the applicant's licence and rating privileges.

**1.3** 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.

**1.4** 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.

**1.5** 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.

**1.5.1** 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.

**1.5.2** 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.

**1.6** Electrocardiography shall form part of the heart examination for the first medical examination.

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

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

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

- 1.7** The systolic and diastolic blood pressures shall be within normal limits.
- 1.7.1** 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.
- 1.8** There shall be no significant functional nor structural abnormality of the circulatory system.
- 1.9** 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.
- 1.9.1** Chest radiography shall form part of the initial and periodic examinations in cases where asymptomatic pulmonary disease can be expected.
- 1.10** 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.
- 1.11** Applicants with asthma causing significant symptoms or likely to cause incapacitating symptoms during normal or emergency operations shall be assessed as unfit.
- 1.11.1** 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.
- 1.12** Applicants with active pulmonary tuberculosis shall be assessed as unfit.
- 1.12.1** Applicants with quiescent or healed lesions, known to be tuberculous or presumably tuberculous in origin, may be assessed as fit.
- 1.13** Applicants shall be completely free from those hernias that might give rise to incapacitating symptoms.
- 1.13.1** Applicants with significant impairment of the function of the gastrointestinal tract or its adnexa shall be assessed as unfit.

- 1.14** 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.
- 1.14.1** 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 shall be assessed as unfit until such time as the medical assessor, having access to the details of the operation concerned, considers that the effects of the operation are not likely to cause incapacitation in flight.
- 1.15** 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.
- 1.16** Applicants with insulin-treated diabetes mellitus shall be assessed as unfit.
- 1.16.1** 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.
- 1.17** 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.*
- 1.18** 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.
- 1.18.1** Urine examination shall form part of the medical examination and abnormalities shall be adequately investigated.
- 1.19** 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.

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

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

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

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

**1.21.1** For applicants with a low-risk uncomplicated pregnancy, evaluated and supervised in accordance with paragraph 1.22, the fit assessment shall be limited to the period from the end of the 12th week until the end of the 26th week of gestation.

**1.22** 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.

**1.23** 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.**



**1.24** 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.

**1.25** 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.

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

**1.26** 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.

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

## **2 VISUAL ACUITY TEST REQUIREMENTS**

**2.1** Each eye of the applicant will be tested separately. The methods of testing visual acuity shall be as follows:

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

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

**2.3** 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 the Civil Aviation Medical Board. 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.*

**2.3.1** 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.*

**2.3.2** 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 minimise peripheral field distortion.*

**2.3.3** 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 Examination and every five years thereafter.

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

**2.4** 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.

**2.5** The applicant shall have the ability to read, while wearing the correcting lenses, if any, required by 2.3, 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 paragraph 2.3; if no such correction is prescribed, a pair of spectacles for near use shall be kept readily available during the exercise of the privileges of the licence. When near correction is required, the applicant shall demonstrate that one pair of spectacles is sufficient to meet both distant and near visual requirements.

**Note 1:** *N5 refers to the size of typeface used.*

**Note 2:** *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.*

**Note 3:** *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.*

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

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

**2.7** The applicant shall be required to have normal binocular function.

- 2.7.1** 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.

### **3 COLOUR PERCEPTION REQUIREMENTS**

- 3.1** The applicant shall be required to demonstrate the ability to perceive readily those colours the perception of which is necessary for the safe performance of duties.
- 3.2** 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).
- 3.3** An applicant obtaining a satisfactory result as prescribed by the evaluating medical examiner 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 with the following restriction – valid daytime only.
- 3.3.1** Sunglasses worn during the exercise of the privileges of the licence or rating held shall be non-polarising and of a neutral grey tint.

### **4 HEARING REQUIREMENTS**

- 4.1** Applicants shall be required to demonstrate a hearing performance sufficient for the safe exercise of their licence and rating privileges.
- 4.2** Applicants shall be tested by pure-tone audiometry at first issue of the licence and, after the age of 50 years, not less than once every two years.
- 4.2.1** Alternatively, other methods providing equivalent results may be used.
- 4.3** At medical examinations, other than those mentioned in paragraph 4.2, where audiometry is not performed, applicants shall be tested in a quiet room by whispered and spoken voice tests.

**Note 1:** *For the purpose of testing hearing in accordance with the requirements, a quiet room is a room in which the intensity of the background noise is less than 35 dB(A).*

**Note 2:** *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.*

**4.4** 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.

**4.5** 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.

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

**Note 1:** *It is important that the background noise be representative of the noise in the cockpit of the type of aircraft for which the applicant's licence and ratings are valid.*

**Note 2:** *In the speech material for discrimination testing, both aviation-relevant phrases and phonetically balanced words are normally used.*

**PART V - CLASS 3 MEDICAL REQUIREMENTS**

- 1 PHYSICAL AND MENTAL REQUIREMENTS**
- 2 VISUAL ACUITY TEST REQUIREMENTS**
- 3 COLOUR PERCEPTION REQUIREMENTS**
- 4 HEARING REQUIREMENTS**

**PART V**  
**CLASS 3 MEDICAL REQUIREMENTS**

**1 PHYSICAL AND MENTAL REQUIREMENTS**

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

**1.2** 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.

**1.2.1** An applicant with depression, being treated with antidepressant medication, should be assessed as unfit unless the CAMB, having access to the details of the case concerned, considers the applicant's condition as unlikely to interfere with the safe exercise of the applicant's licence and rating privileges.

**1.3** 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.
  
- 1.4** 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.
  
- 1.5** 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.
  
- 1.5.1** 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 and rating privileges.
  
- 1.5.2** 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.
  
- 1.6** Electrocardiography shall form part of the heart examination for the first medical examination.
  
- 1.6.1** Electrocardiography shall be included in re-examinations of applicants after the age of 50 no less frequently than every two years.
  
- 1.7** The systolic and diastolic blood pressures shall be within normal limits.
  
- 1.7.1** 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.
  
- 1.8** There shall be no significant functional nor structural abnormality of the circulatory system.



- 1.9** 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.*
- 1.10** 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.
- 1.11** Applicants with asthma causing significant symptoms or likely to cause incapacitating symptoms shall be assessed as unfit.
- 1.11.1** 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.
- 1.12** Applicants with active pulmonary tuberculosis shall be assessed as unfit.
- 1.12.1** Applicants with quiescent or healed lesions, known to be tuberculous or presumably tuberculous in origin, may be assessed as fit.
- 1.13** Applicants with significant impairment of the function of the gastrointestinal tract or its adnexae shall be assessed as unfit.
- 1.14** 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.
- 1.14.1** 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 shall be assessed as unfit until such time as the medical assessor, having access to the details of the operation concerned, considers that the effects of the operation are not likely to cause incapacitation.
- 1.15** 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.

- 1.16** Applicants with insulin-treated diabetes mellitus shall be assessed as unfit.
- 1.16.1** 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 antidiabetic medication, the use of which is compatible with the safe exercise of the applicant's licence and rating privileges.
- 1.17** 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.
- 1.18** 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.
- 1.18.1** Urine examination shall form part of the medical examination and abnormalities shall be adequately investigated.
- 1.19** 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.
- 1.19.1** Applicants who have undergone nephrectomy shall be assessed as unfit unless the condition is well compensated.
- 1.20** Applicants who are seropositive for human immunodeficiency virus (HIV) shall be assessed as unfit unless the applicant's condition has been investigated and evaluated in accordance with the best medical practice and is assessed by CAMB as not likely to interfere with the safe exercise of the applicant's licence or rating privileges.
- Note 1:** *Early diagnosis and active management of HIV disease with antiretroviral therapy reduces morbidity and improves prognosis and thus increase the likelihood of a fit assessment.*

- 1.21** Applicants who are pregnant shall be assessed as unfit unless obstetrical evaluation and continued medical supervision indicate a low-risk uncomplicated pregnancy.
- 1.21.1** During the gestational period, precautions shall be taken for the timely relief of an air traffic controller in the event of early onset of labour or other complications.
- 1.21.2** For applicants with a low-risk uncomplicated pregnancy, evaluated and supervised in accordance with paragraph 1.22, the fit assessment shall be limited to the period until the end of the 34th week of gestation.
- 1.22** 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.
- 1.23** 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.*
- 1.24** 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.
- 1.25** 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.
- 1.26** Applicants with stuttering or other speech defects sufficiently severe to cause impairment of speech communication shall be assessed as unfit.

- 2.1** Each eye of the applicant will be tested separately. The methods of testing visual acuity shall be as follows:
- (a) visual acuity tests shall be conducted in an environment with a level of illumination which corresponds to ordinary office illumination (30-60 cd/m<sup>2</sup>);
  - (b) visual acuity shall be measured by means of a series of Landolt rings, or similar optotypes, placed at a distance from the applicant, as appropriate to the method of testing adopted.

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

- 2.3** 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 the Civil Aviation Medical Board. 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.*

- 2.3.1** 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.

**2.3.2** 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 minimise peripheral field distortion.

**2.3.3** 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 Examination and every five years thereafter.

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

**2.4** 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.

**2.5** The applicant shall have the ability to read, while wearing the correcting lenses, if any, required by 2.3, 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 2.3; if no such correction is prescribed, a pair of spectacles for near use shall be kept readily available during the exercise of the privileges of the licence. When near correction is required, the applicant shall demonstrate that one pair of spectacles is sufficient to meet both distant and near visual requirements.

*Note 1: N5 and N14 refer to the size of typeface used.*

*Note 2: An applicant who needs near correction to meet 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 realised that single-vision near correction significantly reduces distant visual acuity.*

*Note 3: Whenever there is a requirement to obtain or renew correcting lenses, an applicant is expected to advise the refractionist of reading distances for the air traffic control duties the applicant is likely to perform.*

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

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

**2.7** The applicant shall be required to have normal binocular function.

**2.7.1** 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.

### **3 COLOUR PERCEPTION REQUIREMENTS**

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

**3.2** 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).

**3.3** An applicant obtaining a satisfactory result as prescribed by the evaluating medical examiner 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.

**3.3.1** Sunglasses worn during the exercise of the privileges of the licence or rating held shall be non-polarising and of a neutral grey tint.

## 4 HEARING REQUIREMENTS

4.1 The applicant shall be required to demonstrate a hearing performance sufficient for the safe exercise of their licence and rating privileges.

4.2 Applicants shall be tested by pure-tone audiometry at first issue of the licence, not less than once every four years up to the age of 40 years, and thereafter not less than once every two years.

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

4.3 At medical examinations, other than those mentioned in paragraph 4.2, where audiometry is not performed, applicants shall be tested in a quiet room by whispered and spoken voice tests.

*Note 1: For the purpose of testing hearing in accordance with the requirements, a quiet room is a room in which the intensity of the background noise is less than 35 dB(A).*

*Note 2: 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.*

4.4 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.

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

**Note 1: The frequency composition of the background noise is defined only to the extent that the frequency range 600 to 4 800 Hz (speech frequency range) is adequately represented.**

**Note 2: In the speech material for discrimination testing, both aviation-relevant phrases and phonetically balanced words are normally used.**

- 4.4.2** 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.