



AERO MEDICAL EXAMINER HANDBOOK

*Maldives Civil Aviation Authority
Republic of Maldives*

01 January 2016

AERO MEDICAL EXAMINER HANDBOOK

This is an internal MCAA manual. It contains guidance material intended to assist MCAA Inspectors, Medical officers and the designated Aero Medical Examiners in carrying out their regulatory responsibilities and may be made available to the public for information purposes only.

Since this is an uncontrolled version of the manual, which will not be updated by MCAA, it should not be relied upon for any regulatory purpose. The current manual can be viewed at any time via MCAA's website at "www.caa.gov.mv".

One should always refer to the applicable provisions of the Civil Aviation Act, Maldives Civil Aviation Regulations- AIRCREW and ATCO MEDICAL with the associated AMCs and GMs, rather than this manual, to ascertain the requirements of, and the obligations imposed by or under, the civil aviation legislation.

1 January 2016

TABLE OF CONTENTS

CHAPTER 1 Introduction

- 1.1 Abbreviations Used in this Handbook.**
- 1.2 The Origin and Development of the MCAA *AME Handbook***
- 1.3 Appointment and Legal Status of Aero Medical Examiners**
- 1.4 Qualifications and Experience**
- 1.5 Duration of Designation**
- 1.6 Obligations of AME, (AeMC, GPM and OHMP)**
- 1.7 Facilities and Equipment**
- 1.8 Protection under the Civil Aviation Regulations**
- 1.9 Fees**

CHAPTER 2 Documentation and Administrative Procedures

- 2.1 Licences – General**
- 2.2 Classes of Medical Certificates for Licence Types**
- 2.3 Duration of Validity**
- 2.4 Special Reports and Tests Required for Medical Certification**
- 2.5 Issuance of Medical Certificates**

CHAPTER 3 The Medical Assessing System

- 3.1 General Matters**
- 3.2 Medical and Ophthalmological Assessment Forms**
- 3.3 The Medical Certificate**
- 3.4 Medical Certificate Revalidation/Renewal**
- 3.5 Assessments Other than Pass Assessments**
- 3.6 Identification of MCAA Examiners (AMEs, GPMs and OHMPs)**

CHAPTER 4 Special Investigations

4.1 Electrocardiographs

4.2 Audiograms

4.3 Special Hearing Tests

4.4 Assessment by Designated Aviation Ophthalmologists or Designated Aviation Eye Examiners

4.5 Temporary Incapacity of Certificate Holders

4.6 Additional Investigations and Specialist Opinions

4.7 Special Periodic Examinations Required

4.8 Other Special Examinations

CHAPTER 5 Medical Certificate Endorsements

5.1 General

5.2 Frequently Used Conditions Endorsed on Medical Certificates

5.3 Limitations to Medical Certificates

CHAPTER 1 Introduction

1.1 Abbreviations Used in this Handbook.

AMC	Acceptable Means of Compliance.
ARN	Aviation Reference Number
ATPL	Airline Transport Pilot Licence
AeMC	Aero-Medical Centres
AME	Aero-Medical Examiners
CAA	Maldives Civil Aviation Authority
GM	Guidance Material
GMP	General Medical Practitioners
OHMP	Occupational Health medical Practitioners

1.2 The Origin and Development of the MCAA AME Handbook

MCAA in its efforts to advise AMEs concerning practical and administrative aspects of their duties has adopted CASA *DAME Handbook*, which originated in the late 1980s.

The AME Handbook was never intended to be completely prescriptive or authoritative, particularly in its more clinically oriented areas. The principal purpose of creating (and maintaining) such a publication is to provide a compact ready reference for AMEs and anyone else in MCAA's procedures related to aeromedical certification.

1.3 Appointment and Legal Status of Aero Medical Examiners

In order to utilise a Flight Crew Licence or Air Traffic Service Licence, it is necessary to have a medical clearance at a standard appropriate to the licence held. Within Maldives, designated medical practitioners perform the necessary medical examinations for Maldives Civil Aviation Authority (CAA).

Designated medical practitioners perform medical examinations to meet the provisions of the Civil Aviation Act and the Maldives Civil Aviation Regulations. The practitioners approved to perform these examinations are known as Aero Medical Examiners (AMEs).

In order to meet CAA's needs and the needs of applicants for medical certification, appropriately qualified holders of certain positions are also permitted to undertake the duties of AMEs.

Procedure for the issue, revalidation, renewal or change of an AME certificate

- (a) The certification procedure for an AME will follow the provisions laid down in ARA.GEN.315. Before issuing the certificate, MCAA will have evidence that the AME practice is fully equipped to perform aero- medical examinations within the scope of the AME certificate applied for.

- (b) When satisfied that the AME is in compliance with the applicable requirements, MCAA will issue, revalidate, renew or change the AME certificate for a period of 3 years, using the form as established in Appendix VII to this part. **ARA.MED.200**

General medical practitioners (GMPs) acting as AMEs

MCAA will notify if aero-medical examinations for the LAPL can be carried out by GMPs. **ARA.MED.240**

Limitation, suspension or revocation of an AME certificate

- (a) MCAA will limit, suspend or revoke an AME certificate in cases where:
- (1) the AME no longer complies with applicable requirements;
 - (2) failure to meet the criteria for certification or continuing certification;
 - (3) deficiency of aero-medical record-keeping or submission of incorrect data or information;
 - (4) falsification of medical records, certificates or documentation;
 - (5) concealment of facts appertaining to an application for, or holder of, a medical certificate or false or fraudulent statements or representations to MCAA;
 - (6) failure to correct findings from audit of the AME practice; and
 - (7) at the request of the certified AME.
- (b) The certificate of an AME will be automatically revoked in either of the following circumstances:
- (1) revocation of medical licence to practice; or
 - (2) removal from the national medical register. **ARA.MED.250**

Enforcement measures

If, during oversight or by any other means, evidence is found showing a non-compliance of an AeMC, an AME or a GMP, MCAA will have a process to review the medical certificates issued by that AeMC, AME or GMP and may render them invalid where required to ensure flight safety. **ARA.MED.255**

1.4 Qualifications and Experience

Medical practitioners designated by MCAA to perform Air Crew and Air Traffic Services medical examinations must be registered with the medical registration authority of the State or country in which they reside.

As a signatory to the Chicago Convention, Maldives is bound to appoint as AMEs only medical examiners that have had appropriate training in aviation medicine. Possession of a Certificate in Civil Aviation Medicine or similar qualification is the normal minimum requirement for appointment as an AME. Applicants for appointment as AMEs on the basis of completion of other courses should contact MCAA to discuss requirements. Prior to appointment, and periodically thereafter, AMEs are required to give an undertaking to abide by specified conditions of appointment.

AMEs are required to attend periodic training seminars or courses in aviation medicine approved by MCAA. Attendance at an aerospace medicine scientific meeting such as:

- (1) International Academy of Aviation and Space Medicine Annual Congresses;
- (2) Aerospace Medical Association Annual Scientific Meetings; and
- (3) other scientific meetings, as organised or approved by the Medical Assessor.

or similar bodies is sufficient to meet this requirement. AMEs may also apply individually for approval of other appropriate training activities. Documented attendance at an appropriate activity is usually required at least once every three years.

1.5 Duration of Designation

MCAA appoints AMEs for periods specified at the time of appointment. They are required to re-apply for appointment at the end of each such period. Designation lapses if the designated examiner ceases to practise at the location for which he/she is appointed, unless MCAA approves a changed practice location. Designation does not automatically extend to a designated examiner's partners, assistants, locums or successors without prior MCAA approval, which should be sought well in advance of any anticipated need. Designated examiners who wish to have other practitioners act in their stead should contact MCAA to ascertain precise requirements.

1.6 Obligations of AME, (AeMC, GPM and OHMP)

When conducting medical examinations and/or assessments, AeMC, AME, GMP and OHMP shall:

- (1) ensure that communication with the person can be established without language barriers;
- (2) make the person aware of the consequences of providing incomplete, inaccurate or false statements on their medical history.

After completion of the aero-medical examinations and/or assessment, the AeMC, AME, GMP and OHMP shall:

- (1) advise the person whether fit, unfit or referred to MCAA, AeMC or AME as applicable;
- (2) inform the person of any limitation that may restrict flight training or the privileges of the licence, as applicable;
- (3) if the person has been assessed as unfit, inform him/her of his/her right of a secondary review; and
- (4) in the case of applicants for a medical certificate, submit without delay a signed, or electronically authenticated, report to include the assessment result and a copy of the medical certificate to MCAA.

AeMCs, AMEs, GMPs and OHMPs shall maintain records with details of medical examinations and assessments performed in accordance with MCAR AICREW, PART-MED and their results.

When required for medical certification and/or oversight functions AeMCs, AMEs, GMPs and OHMPs shall submit to the medical assessor of MCAA upon request all aero-medical records and reports, and any other relevant information. **MED.A.025**

1.7 Facilities and Equipment

The AeMC shall be equipped with medico-technical facilities adequate to perform aero-medical examinations necessary for the exercise of the privileges included in the scope of the approval.

ORA.AeMC.215

1.8 Protection under the Civil Aviation Regulations

Civil Aviation Regulations provide complete indemnification against civil or criminal liability for any medical practitioner or other nominated person or organisation that, in good faith, performs an indemnified act in accordance with the Regulations.

For this purpose, ‘an indemnified act’ means any act whereby a AME, other medical practitioner or other specified person advises MCAA of any concerns over the ability of a medical certificate holder or applicant to meet a required medical standard for such certification. MCAA requires such advice to be provided in writing.

1.9 Fees

MCAA does not set or recommend fees for general AeMC, AME, GMP and OHMP examinations.

CHAPTER 2

Documentation and Administrative Procedures

2.1 Licences – General

Aircrew and air traffic services licences are issued to applicants who have met the relevant technical and theoretical standards. Once a licence is issued, it may continue in effect indefinitely. However a valid medical certificate appropriate for the class of licence must accompany the licence for the licence holder to exercise the privileges of the licence, legally.

2.2 Classes of Medical Certificates for Licence Types

There are five medical standards relating to the various types of licences held. These five standards relate to Class 1, 2, 3 LAPL and CC Medical Certificates.

Standard	Applicable to
Class 1	All professional technical aircrew of powered aircraft, and is required for issue of Airline Transport Pilot Licence, Commercial Pilot Licence, Flight Engineer or Flight Navigator Licences.
Class 2	Student Pilot, Private Pilot, Commercial Pilot Balloons and Flight Radio Operator Licences.
Class 3	Air Traffic Controllers.
LAPL	Light Aircraft Pilot Licence holders.
CC	Cabin Crew Licence holders.

2.3 Duration of Validity

Unless otherwise advised by the MCAA:

Class 1	Medical Certificate is valid for 12 months <40 years and 6 months >40 years (for single-pilot commercial air transport operations) or 6 months >60 years.
Class 2	Medical Certificate is valid for 60 months <40 years and 24 months between 40 and 50 years and 12 months >50 years.
Class 3	Medical Certificate is valid for 24 months <40 years and 12 months >40 years.
LAPL	Medical Certificate is valid for 60 months <40 years and 24 months >40 years.
CC	Medical Certificate is valid for 60 months.

See 4.7 Special Periodic Examinations Required.

Where an applicant’s medical condition is under review, the duration of Medical Certificate validity may be varied at the discretion of the MCAA Medical Officer.

2.4 Special Reports and Tests Required for Medical Certification

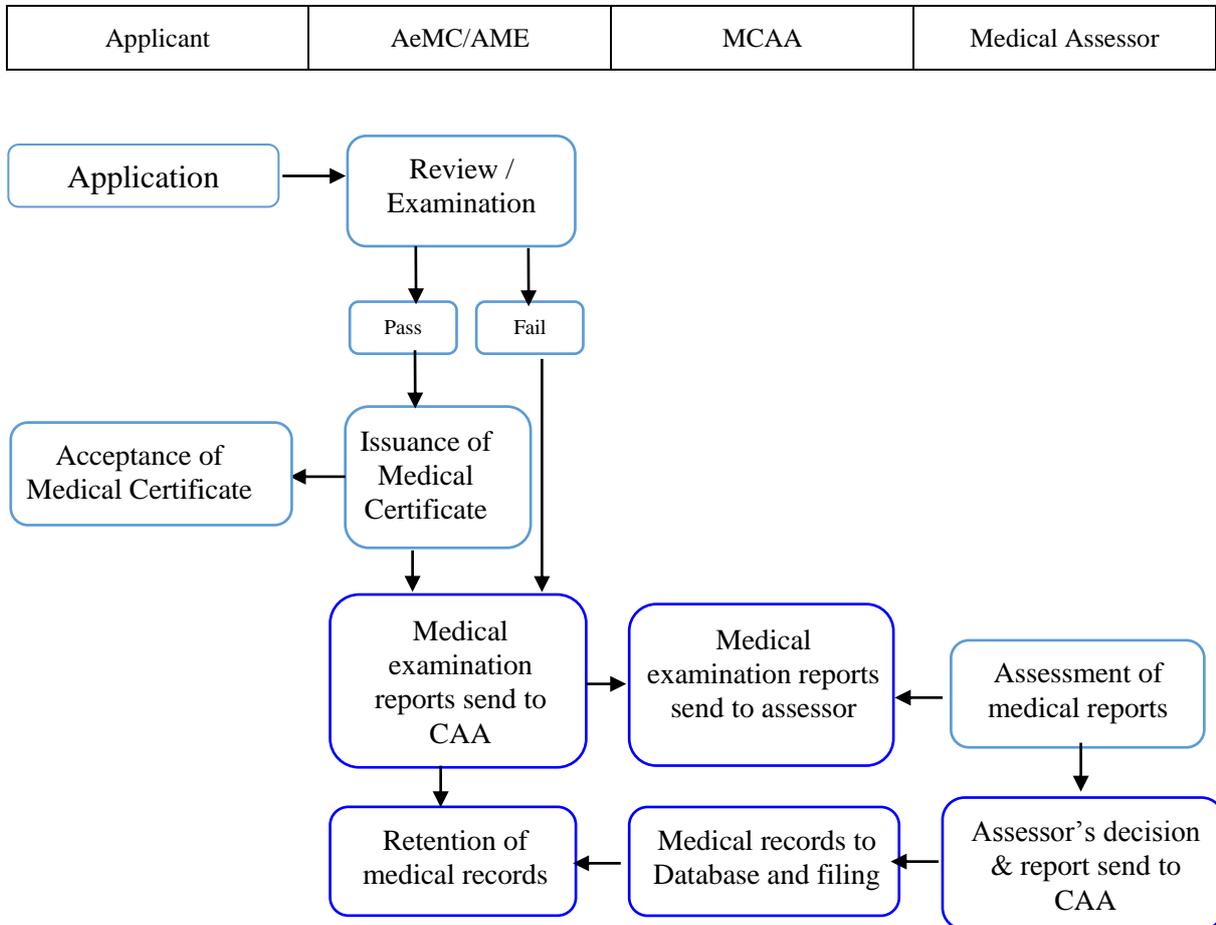
Class 1	Initial Issue	ECG, pulmonary function, audiogram, estimation of fasting serum lipids and fasting blood glucose and an examination by an Ophthalmologist.
	Renewals	ECGs are required every 5 years until age 30, every 2 years until age 40, annually until age 50, and at all revalidation or renewal examinations thereafter. Audiograms are required every 5 years until the age 40 and every 2 years thereafter. Estimation of fasting serum lipids and of fasting blood glucose is required at the first renewal after the 40th birthday and every fifth birthday thereafter. A routine eye examination shall form part of all revalidation and renewal examinations.
Class 2	Initial Issue	Audiogram, estimation of fasting serum lipids and fasting blood glucose and an examination by an Ophthalmologist.
	Renewals	ECGs are required at age 40 and then every 2 years after age 50. A routine eye examination shall form part of all revalidation and renewal examinations. There are no other special requirements, except where an examiner determines a clinical indication exists.
Class 3	Initial Issue	ECG, pulmonary function, audiogram, estimation of fasting serum lipids and fasting blood glucose and an examination by an Ophthalmologist.
	Renewals	ECGs are required every 4 years until the 30 th birthdays and every two years thereafter. Audiograms are required every 4 years until the age of 40 and every 2 years thereafter. Estimation of fasting serum lipids and of fasting blood glucose is required at each renewal. Examination by an Ophthalmologist at age 40 and at two-yearly intervals thereafter.
LAPL	Initial Issue	Assessed based on aero-medical best practice. (ECG, pulmonary function, audiogram, estimation of fasting serum lipids and fasting blood glucose and an examination by an Ophthalmologist.)
	Renewals	Assessed based on aero-medical best practice. After age 50, if medical history of the applicant is not available to the examiner: clinical examination; blood pressure; urine test; vision; and hearing ability.
CC	Initial Issue	ECG, hearing ability, estimation of fasting serum lipids and fasting blood glucose and vision system.
	Renewals	ECG, blood pressure; urine test; vision; and hearing ability.

See also section 4.1 ECG requirements.

2.5 Issuance of Medical Certificates

Maldivian Medical Certificates shall only be issued by MCAA Approved Medical Examiners (AMEs)

PROCEDURE



Application form for medical certificate is available at Aero Medical Centres and it can also be downloaded from MCAA website. Completed application forms for medical certificate are submitted to AeMCs /AME.

Upon receiving an application for medical certificate, an AME will review the application and will carry out all relevant medical examinations in accordance with AeMC SOP. If the medical examination results are successful the AME may grant the medical certificate to the applicant.

Medical examinations reports are to be sent to MCAA by uploading to the MEDICAL PORTAL (medical.caa.gov.mv) and all medical examination documents and results are to be retained at respective AeMCs. These examination results shall be provided to MCAA upon request.

If the medical examination result is unsuccessful, no medical certificate is issued. However the medical examination report shall be sent to MCAA. All medical reports will be forwarded to medical assessor for further assessment and verification. This assessment/verification is carried out in accordance with medical assessor SOP. The medical assessor's decision and the assessment report are then sent back to MCAA.

MCAA maintains a medical database which is accessible to all AMEs. Whenever a medical examination report or medical assessment report is submitted to MCAA, this database is updated.

CHAPTER 3 The Medical Assessing System

3.1 General Matters

MCAA has adopted a medical assessing system intended to automate the process of medical certification to the greatest extent practicable. The technological platform for this process is a computer-based system known as the MCAA Medical Records System Online (MRS Online). Intended future development of MRS Online will further improve the speed and accuracy of medical certification.

Once MRS Online became fully operational, MCAA decommissioned the former paperbased medical reporting system, which relied on optical scanning to capture and store data from routine medical assessments. MCAA no longer maintains a capability to process paper-based routine reports of medical assessments. Consequently, any paperbased medical examination and report forms received are returned to the originator and a notice sent to the examinee advising him/her that the medical report has not been processed and that another is required.

If, for any reason, an examiner is unable to transmit a medical assessment form to MCAA electronically, it is temporarily possible for an examination form to be mailed to MCAA. MCAA does not intend to support this option in the long term because it vitiates many of the efficiency benefits available from MRS Online.

3.2 Medical and Ophthalmological Assessment Forms

Prior to undertaking any aeromedical examination, the examiner is to inform each applicant of the possible legal consequences of a deliberate false statement made with the intention of obtaining a medical certificate. Thereafter, the examiner should obtain the applicant's signature and complete the [applicant statement and examiner certification form MED 160](#) and record all relevant historical details obtained from the applicant.

MCAA requires that the AME personally ask the applicant the questions in the medical history section of the medical assessment report, then personally record the answers given. This allows the AME to assess the applicant's understanding of the questions and to provide any necessary explanations.

3.3 The Medical Certificate

Civil Aviation Regulations require an aviation licence holder to have a current, valid medical certificate appropriate to the class of licence held in order to validate the licence holder's exercise of privileges conferred by the licence. That is, in order to exercise the privileges of an aviation licence, the licence holder must have both a licence and a valid medical certificate for the class of licence.

The medical certificate confirms that the applicant has been medically assessed, details the class of medical certificate held, the validity date, and confirms either that the required medical standard is met or details of any restrictions imposed by MCAR which affect the medical

certificate's validity and therefore the use of the licence (refer 5.2 Frequently Used Conditions Endorsed on Medical Certificates). For professional licence holders, it also notes the dates of most recent additional examinations required (refer 4.6 Additional Investigations and Specialist Opinions).

3.4 Medical Certificate Revalidation/Renewal

AMEs are authorised to issue medical certificates. They may revalidate/renew an existing current medical certificate.

Examinations and/or assessments for the revalidation of a medical certificate may be undertaken up to 45 days prior to the expiry date of the medical certificate. **MED.A.045**

If the medical certificate has expired:

- (i) for more than 2 years, the AeMC or AME shall only conduct the renewal examination after assessment of the aero-medical records of the applicant;
- (ii) for more than 5 years, the examination requirements for initial issue shall apply and the assessment shall be based on the revalidation requirements. **MED.A.045**

3.5 Assessments Other than Pass Assessments

Only MCAA's MCAA Medical Officer (PMO) has the delegated power to cancel an applicant's medical certificate(s).

An AME may only revalidate the medical certificate of an applicant who appears to meet the required medical standard and where the medical certificate does not bear the endorsement 'Renew by MCAA only'. If an AME has any concerns about an applicant meeting the required medical standard, he/she must decline to revalidate the medical certificate and refer the matter to MCAA for determination. Relevant specialist opinions and/or investigations should be obtained and the results forwarded to MCAA, together with the AME's opinion concerning the applicant's fitness for certification.

To assist MCAA's consideration of applicants where there is doubt about ability to meet the required medical standard, AMEs should avoid vague descriptive terms in their reports. Expressions such as 'brief', 'infrequent', 'mild', 'some' or similar convey no meaningful information. MCAA recommends the "6W mnemonic".

- WHAT 1: What happened? (Detail signs and symptoms that led to the consultation, procedure etc.).
- WHAT 2: What were the sequelae?
- WHEN: What were the dates and frequency?
- WHERE: What body part was affected? (Left or right, upper arm/forearm etc.).
- WHY: Why was a procedure performed?
- WHO: Who was involved? (Who carried out a procedure/made an assessment/is undertaking follow up, etc.).

Once all necessary information has been received, MCAA then submits full details of the case to a panel composed of aviation medicine practitioners. When appropriate, this panel may be supplemented by clinical or other specialists. A determination on the case will then be made and the applicant notified of the result.

If an applicant is dissatisfied with the panel's determination, a review may be requested and/or the matter may be appealed.

3.6 Identification of MCAA Examiners (AMEs, GPMs and OHMPs)

Each designated examiner requires an individual Aviation Reference Number (ARN), which must be obtained from MCAA.

MCAA issues a unique identification stamp to each AME. Each stamp is intended for the exclusive use of the individual examiner to whom it is issued and, except as provided hereafter, must not be loaned to or used by any other practitioner without prior approval by the MCAA.

When MCAA has approved GPMs or OHMPs, they also their own examiner's stamp and also identify himself/herself in accordance with MCAA procedures.

Examiners' identification stamps should be stored securely when not in use. The unique identification number on each stamp should be used in all correspondence between the examiner and MCAA.

CHAPTER 4 Special Investigations

4.1 Electrocardiographs

Routine electrocardiographs are required at specified intervals for class 1 and class 3 medical certification. They may also be required on clinical grounds. All ECGs that need to be sent to MCAA are to be mounted on A4 paper and must contain the following information.

- Applicant's full name
- Applicant's ARN
- Date of recording.

Leads should be marked on the trace and the calibration mark should be clearly visible. The tracing should be performed using standard calibration (10 mm/mV). If half calibration is needed to clarify the standard trace, both should be sent to MCAA. ECGs with slurred or incorrect calibration are not acceptable.

When self-reporting ECG machines are used, the reports are to be included with the tracings.

Where an ECG is known to be abnormal, copies of the previous ECG or reference to it (particularly regarding any changes) would be helpful and should speed MCAA's evaluation of the applicant.

Note that reports (whether by the AME or other interpreter) should accompany all ECGs sent to MCAA. Except for those already reported on by an approved specialist or interpreted by a self-reporting machine,

The AME should also examine all ECGs and assess them as normal or abnormal, then provide details of any abnormality detected in the medical report.

4.2 Audiograms

The pure-tone audiogram performed by an AME or any other person is treated by the MCAA as a screening test only, and is never used as the final arbiter of an applicant's ability to meet the hearing requirements for a Medical Certificate. Audiograms performed by AMEs are acceptable. However, any audiometer used for MCAA-required audiograms must have been calibrated within two years of the date of such examinations.

The audiogram result is to be stated in the medical assessment form even when a printed results slip is included with the form when uploaded.

AMEs should file the audiogram result printout with the medical assessment forms for all original Class 1 and Class 3 applicants.

4.3 Special Hearing Tests

If an applicant fails the speech-based hearing test, in some cases an in-flight test *may* be offered if he/she has a high level of aeronautical experience. Such an operational check will involve evaluation of relevant aspects of the applicant's hearing by a MCAA Flying Operations Inspector or an Authorised Testing Officer with test material transmitted from a control tower. Ideally the test should be conducted in the class of aircraft that is the same as that which the applicant normally operates.

4.4 Assessment by Designated Aviation Ophthalmologists or Designated Aviation Eye Examiners

An applicant for original class 1 or class 3 medical certification requires routine assessment and reporting by an Ophthalmologist or a Designated Aviation Eye Examiner. A class 1 applicant who has attained the age of 60 years requires further routine assessment and reporting by an Ophthalmologist or a Designated Aviation Eye Examiner.

Further assessments are required at intervals of every two years thereafter (refer Section 4.7 'Special periodic medical examinations required').

Any applicant for original medical certification who fails to meet the required visual standard also requires assessment and reporting by an ophthalmologist or optometrist, usually an Ophthalmologist or a Designated Aviation Eye Examiner. MCAA will determine subsequent requirements on a case-by case basis.

Where an AME detects or suspects ophthalmic pathology in any applicant for medical certification, referral to an Ophthalmologist or a Designated Aviation Eye Examiner for further assessment is required.

A small number of experienced class 3 medical certificate holders have been 'grandfathered' so as to retain their medical certification, despite being unable to meet the colour vision requirements of the class 3 standard.

4.5 Temporary Incapacity of Certificate Holders

MCAA requires medical certificate holders who experience any medically significant changes in medical condition to inform MCAA or an AME of such changes. The information is required to be conveyed to MCAA or an AME after the applicant has been aware of the change for longer than 21 days. Thereafter, the AME so informed is required to notify MCAA.

Decrease in medical fitness

Licence holders shall not exercise the privileges of their licence and related ratings or certificates at any time when they:

- (1) are aware of any decrease in their medical fitness which might render them unable to safely exercise those privileges;
- (2) take or use any prescribed or non-prescribed medication which is likely to interfere with the safe exercise of the privileges of the applicable licence;

- (3) receive any medical, surgical or other treatment that is likely to interfere with flight safety.

In addition, licence holders shall, without undue delay, seek aero-medical advice when they:

- (1) have undergone a surgical operation or invasive procedure;
- (2) have commenced the regular use of any medication;
- (3) have suffered any significant personal injury involving incapacity to function as a member of the flight crew;
- (4) have been suffering from any significant illness involving incapacity to function as a member of the flight crew;
- (5) are pregnant;
- (6) have been admitted to hospital or medical clinic;
- (7) first require correcting lenses.

In these cases:

- (1) holders of Class 1 and Class 2 medical certificates shall seek the advice of an AeMC or AME. The AeMC or AME shall assess the medical fitness of the licence holder and decide whether they are fit to resume the exercise of their privileges;
- (2) holders of LAPL medical certificates shall seek the advice of an AeMC or AME, or the GMP who signed the medical certificate. The AeMC, AME or GMP shall assess the medical fitness of the licence holders and decide whether they are fit to resume the exercise of their privileges.

Cabin crew members shall not perform duties on an aircraft and, where applicable, shall not exercise the privileges of their cabin crew licence when they are aware of any decrease in their medical fitness, to the extent that this condition might render them unable to discharge their safety duties and responsibilities.

In addition, if in the medical conditions specified in (b) (1) to (b) (5), cabin crew members shall, without undue delay, seek the advice of an AME, AeMC, or OHMP as applicable. The AME, AeMC or OHMP shall assess the medical fitness of the cabin crew members and decide whether they are fit to resume their safety duties.

MED.A.020

4.6 Additional Investigations and Specialist Opinions

The AME should refer an applicant (or arrange referral through the applicant's usual general practitioner) for appropriate specialist review(s) and/or other investigations whenever a significant abnormality in the history or physical examination of an applicant is detected. The purpose of such review or investigation is to clarify whether the applicant meets the required standard(s) for medical certification, or whether medical certification with appropriate conditions is compatible with the safety of air navigation.

Where an applicant fails to return for follow up or completion of the assessment is delayed for more than one month for any reason, the AME should forward to MCAA advice of the situation and copies of any reports available. Thereafter, in the event of further delays, or of the applicant failing to return for review, the AME should advise MCAA as then appropriate. Written, faxed or e-mailed advice is required in these circumstances.

4.7 Special Periodic Examinations Required

Certificate	Frequency	Requirements on Initial Issue
Class 1 ATPL	12-monthly until age 60, then 6-monthly	Audio, Eye, ECG, Serum Lipids, Blood Glucose FEV ₁
Class 1 CPL	12-monthly	Audio, Eye, ECG, Serum Lipids, Blood Glucose FEV ₁
Class 2	Four-yearly until age 40, then two yearly	FEV ₁
Class 3	Two-yearly	Audio, Eye, ECG, Serum Lipids, Blood Glucose FEV ₁

Examinations are as follows:

Audio	Hearing test - audiogram
Eye	Specialist eye examination
ECG	Electrocardiogram
Serum Lipids	Total Cholesterol (fasting), HDL and LDL fractions
Blood Glucose	Blood Glucose (fasting)
Stress ECG	Exercise ECG on Bruce Protocol (no requirement for cardiologist referral)
FEV ₁	Peak Flow (range is within 30% of the predicted value for height, sex and age – refer a <i>Peak Expiratory Flow in Normal Subjects</i> chart)

Notes:

- Each applicant for a class 1 or class 3 medical certificate who scores 15 or more points on the American Heart Association [Coronary Heart Disease Prediction Chart](#) must undergo a stress ECG.
- Each applicant for a class 1 or class 3 medical certificate should have his/her risk score calculated at the original medical examination, then at the first medical examination after age 25, thereafter every 5 years until age 60, thereafter annually.
- Fasting serum lipid estimations must include total cholesterol, high and low density lipoprotein cholesterol fractions: be certain to specify this on the pathology request form as an 'Occupational Requirement'. (This alerts the pathology laboratory that the investigation is not HIC rebatable and usually ensures it will be performed, even when other lipid values are within normal limits).
- On occasions, applicants may have undergone certain of these tests or specialist reviews independently of the MCAA requirement. AMEs may accept certified true copies of recent results (only).

Classes 1 and 3 Additional Requirements

The table below gives the additional tests/examinations that are required at each renewal examination for applicants for **Class 1, 2 and 3** Medical Certificates. Requirements for applicants aged more than 80 years will be advised individually.

Legend

Audio	Hearing test—audiogram
Eye	Specialist eye examination
ECG	Electrocardiogram
Lipids	Serum Lipids
Glucose	Blood Glucose

Age	Tests/Examinations			
	Audio	Lipids + Glucose	Eye	ECG
30		Class 3	Class 1	Class 1 and 3
31				
32	Class 3	Class 3	Class 1	Class 1 and 3
33				
34		Class 3	Class 1	Class 1 and 3
35	Class 1	Class 3	Class 1	
36	Class 3	Class 3	Class 1	Class 1 and 3
38		Class 3	Class 1	Class 1 and 3
40	Class 1 and 3	Class 1 and 3	Class 1 and 3	Class 1, 2 and 3
41		Class 3	Class 1	Class 1
42	Class 1 and 3	Class 3	Class 1 and 3	Class 1 and 3
43		Class 3	Class 1	Class 1
44	Class 1 and 3	Class 3	Class 1 and 3	Class 1 and 3
45		Class 1 and 3	Class 1	Class 1
46	Class 1 and 3	Class 3	Class 1 and 3	Class 1 and 3
47		Class 3	Class 1	Class 1
48	Class 1 and 3	Class 3	Class 1 and 3	Class 1 and 3
49		Class 3	Class 1	Class 1
50	Class 1 and 3	Class 1 and 3	Class 1 and 3	Class 1, 2 and 3
51		Class 3	Class 1	Class 1
52	Class 1 and 3	Class 3	Class 1 and 3	Class 1, 2 and 3
53		Class 3	Class 1	Class 1
54	Class 1 and 3	Class 3	Class 1 and 3	Class 1, 2 and 3
55		Class 1 and 3	Class 1	Class 1
56	Class 1 and 3	Class 3	Class 1 and 3	Class 1, 2 and 3
57		Class 3	Class 1	Class 1
58	Class 1 and 3	Class 3	Class 1 and 3	Class 1, 2 and 3
59		Class 3	Class 1	Class 1
60	Class 1 and 3	Class 1 and 3	Class 1 and 3	Class 1, 2 and 3
61		Class 3	Class 1	Class 1
62	Class 1 and 3	Class 3	Class 1 and 3	Class 1, 2 and 3
63		Class 3	Class 1	Class 1
64	Class 1 and 3	Class 3	Class 1 and 3	Class 1, 2 and 3
65		Class 1 and 3	Class 1	Class 1
>65	Class 1 and 3	Class 1, 2 and 3	Class 1, 2 and 3	Class 1, 2 and 3

4.8 Other Special Examinations

Applicants for class 1 or class 2 medical certification who fail the Ishihara Pseudoisochromatic Plates (PIP) colour vision test are to be referred to a centre that conducts [Farnsworth Lantern \(FALANT\) testing](#). Applicants for class 1 or class 2 medical certification who fail the Farnsworth Lantern tests are to be referred for practical signal light testing. Note that colour vision testing for these applicants is to follow the sequence PIP → FALANT → practical signal light testing. A pass on any of these tests will satisfy the requirements for issue of an unrestricted class 1 or class 2 medical certificate.

New applicants for class 3 medical certification are required to pass the Ishihara PIP colour vision test. No additional or alternative colour vision testing is available for this group. A small number of experienced class 3 medical certificate holders have been 'grandfathered' so as to retain their medical certification, despite being unable to meet the colour vision requirements of the class 3 standard.

For certain applicants, routine periodic urinalysis for drugs is a requirement of continued medical certification. It is medico legally essential that such testing be performed in accordance with a specified protocol.

CHAPTER 5 Medical Certificate Endorsements

5.1 General

Whenever appropriate, AME places a condition or conditions of use on an applicant's medical certificate(s) which influences the validity of the medical certificate(s). Multiple conditions may be placed on a medical certificate, and different conditions may be placed on different classes of medical certificate held by an individual.

5.2 Frequently Used Conditions Endorsed on Medical Certificates

#	Code	Limitation
1	TML	restriction of the period of validity of the medical certificate
2	VDL	correction for defective distant vision
3	VML	correction for defective distant, intermediate and near vision
4	VNL	correction for defective near vision
5	CCL	correction by means of contact lenses only
6	VCL	valid by day only
7	HAL	valid only when hearing aids are worn
8	APL	valid only with approved prosthesis
9	OCL	valid only as co-pilot
10	OPL	valid only without passengers (PPL and LAPL only)
11	SSL	special restriction as specified
12	OAL	restricted to demonstrated aircraft type
13	AHL	valid only with approved hand controls
14	SIC	specific regular medical examination(s) - contact MCAA
15	RXO	specialist ophthalmological examinations

5.3 Limitations to medical certificates

Limitations to Class 1 and Class 2 medical certificates

If the applicant does not fully comply with the requirements for the relevant class of medical certificate but is considered to be not likely to jeopardise flight safety, the AeMC or AME shall:

- (i) in the case of applicants for a Class 1 medical certificate, refer the decision on fitness of the applicant to MCAA as indicated in this Subpart;

- (ii) in cases where a referral to MCAA is not indicated in this Subpart, evaluate whether the applicant is able to perform his/her duties safely when complying with one or more limitations endorsed on the medical certificate, and issue the medical certificate with limitation(s) as necessary;
- (iii) in the case of applicants for a Class 2 medical certificate, evaluate whether the applicant is able to perform his/her duties safely when complying with one or more limitations endorsed on the medical certificate, and issue the medical certificate, as necessary with limitation(s), in consultation with MCAA;
- (iv) The AeMC or AME may revalidate or renew a medical certificate with the same limitation without referring the applicant to MCAA. **MED.B.001**

Limitations to class 3 medical certificates:

If the applicant does not fully comply with the requirements for a class 3 medical certificate but is considered to be not likely to jeopardise the safe exercise of the privileges of the licence, the AeMC or AME shall:

- (i) refer the decision on fitness of the applicant to MCAA; or
- (ii) evaluate whether the applicant is able to perform their duties safely when complying with one or more limitations endorsed on the medical certificate, and issue the medical certificate with limitation(s) as necessary. **ATCO.MED.B.001**

Limitations to LAPL medical certificates

- (1) If a GMP, after due consideration of the applicant's medical history, concludes that the applicant does not fully meet the requirements for medical fitness, the GMP shall refer the applicant to an AeMC or AME, except those requiring a limitation related only to the use of corrective lenses.
- (2) If an applicant for an LAPL medical certificate has been referred, the AeMC or AME shall give due consideration to MED.B.095, evaluate whether the applicant is able to perform their duties safely when complying with one or more limitations endorsed on the medical certificate and issue the medical certificate with limitation(s) as necessary. The AeMC or AME shall always consider the need to restrict the pilot from carrying passengers (Operational Passenger Limitation, OPL).
- (3) The GMP may revalidate or renew an LAPL medical certificate with the same limitation without referring the applicant to an AeMC or AME. **MED.B.001**

Operational limitation codes

Operational multi-pilot limitation (OML — Class 1 only)

- (i) When the holder of a CPL, ATPL or MPL does not fully meet the requirements for a Class 1 medical certificate and has been referred to MCAA, it shall be assessed whether the medical certificate may be issued with an OML 'valid only as or with qualified co-pilot'. This assessment shall be performed by MCAA.
- (ii) The holder of a medical certificate with an OML shall only operate an aircraft in multi-pilot operations when the other pilot is fully qualified on the relevant type of aircraft, is not subject to an OML and has not attained the age of 60 years.
- (iii) The OML for Class 1 medical certificates may only be imposed and removed by MCAA.

Operational Safety Pilot Limitation (OSL — Class 2 and LAPL privileges)

- (i) The holder of a medical certificate with an OSL limitation shall only operate an aircraft if another pilot fully qualified to act as pilot-in-command on the relevant class or type of aircraft is carried on board, the aircraft is fitted with dual controls and the other pilot occupies a seat at the controls.
- (ii) The OSL for Class 2 medical certificates may be imposed or removed by an AeMC or AME in consultation with MCAA.

Operational Passenger Limitation (OPL — Class 2 and LAPL privileges)

- (i) The holder of a medical certificate with an OPL limitation shall only operate an aircraft without passengers on board.
- (ii) An OPL for Class 2 medical certificates may be imposed by an AeMC or AME in consultation with MCAA.
- (iii) An OPL for an LAPL medical certificate limitation may be imposed by an AeMC or AME.

MED.B.001