



# **CHIEF EXECUTIVE OFFICER DIRECTIVES**

## ***MEDICAL REQUIREMENT***

***PUBLISHED BY:  
THE OFFICE OF CHIEF EXECUTIVE OFFICER OF  
CIVIL AVIATION AUTHORITY OF MALAYSIA***

**ISSUE 2  
Amendment 1**

## INTRODUCTION


In exercise of the powers conferred by section 24O of the Civil Aviation Act 1969 [Act 3], the Chief Executive Officer makes these Chief Executive Officer Directives – *Medical Requirement*.

This Directive contains the standards, requirements and procedures pertaining to aviation medicine. The standards and requirements in this Directive are based mainly on standards and recommended practices (SARPs) stipulated in International Civil Aviation Organisation ('ICAO') Annex 1 to the Chicago Convention – Personnel Licensing.

This Directive are published by the Chief Executive Officer under section 24O of the Civil Aviation Act 1969 [Act 3] and come into force on 17 July 2019.

### Non-compliance with this Directive

Any person who contravenes any provision in this Directive commits an offence and shall on conviction be liable to the punishment under section 24O of the Civil Aviation Act 1969 [Act 3].

  
(Ahmad Nizar bin Zolfakar)  
Chief Executive Officer  
Civil Aviation Authority of Malaysia  
17 July 2019

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## AMENDMENT RECORDS

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## **CIVIL AVIATION ACT 1969**

### **CHIEF EXECUTIVE OFFICER DIRECTIVES – MEDICAL REQUIREMENT FOR LICENCE HOLDER, CABIN CREW ATTESTATION AND MEDICAL EXAMINER**

#### **1. CITATION**

These Chief Executive Officer Directives may be cited as the Chief Executive Officer Directives – Medical Requirement.

#### **2. APPLICATION**

The following persons shall be subject to these Directives:

- (a) an applicant for a licence granted under regulations 59 and 149 of the MCAR;
- (b) a holder of a licence granted under regulations 59 and 149 of the MCAR;
- (c) a holder of a flight crew licence granted under the law of any State for the purpose of regulation 63 of the MCAR;
- (d) applicants for a course of training for Private Pilot Licence (“PPL”), Multi Pilot Licence (“MPL”), Commercial Pilot Licence (“CPL”) or Airline Transport Pilot Licence (“ATPL”) which will be conducted at the approved training organisation (“ATO”) as approved by the CAAM;
- (e) a cabin crew member; and
- (f) an applicant for a cabin crew attestation.

#### **3. INTERPRETATION**

In these Directives –

“Accredited medical conclusion” means the conclusion reached by one or more medical experts acceptable to CAAM, on the basis of objective and non-discriminatory criteria, for the purposes of the case concerned, in consultation with flight operations or other experts as necessary;

“Aircrew” means a holder of a licence and an applicant for a licence granted under regulation 59 of the MCAR;

“Air Traffic Controller” or “ATCO” means a holder of a licence and an applicant for a licence granted under regulation 149 of the MCAR;

“Assessment” means the conclusion on the medical fitness of a person based on the evaluation of the person’s medical history and/or aero-medical examinations as required in these Directives and further examinations as necessary, and/or medical tests such as, but not limited to, ECG, blood pressure measurement, blood testing, X-ray and/or specialist’s reports;

“CAAM” means Civil Aviation Authority of Malaysia;

“Colour safe” means the ability of an applicant to readily distinguish the colours used in air navigation and correctly identify aviation coloured lights;

“Examination” means an inspection, palpation, percussion, auscultation or other means of investigation especially for assessment of fitness;

“Investigation” means the assessment of a suspected pathological condition of an applicant by means of examinations, tests and/or specialists reports in order to verify the presence or absence of a medical condition;

“Limitation” means a condition placed on the medical certificate or license that shall be complied with whilst exercising the privileges of the license;

“MCAR” means Civil Aviation Regulations 2016;

“Medical examiner” or “ME” means a physician with training in aviation medicine and practical knowledge and experience of the aviation environment, who is approved by the CAAM to conduct medical examination for fitness of the applicant or a holder of a licence for which medical requirement is prescribed; and

“Refractive error” means the deviation from emmetropia measured in dioptres in the most ametropic meridian, measured by standard methods.

#### **4. REVOCATION**

The Director General Directives – Medical, Issue 2 Revision 0 is revoked.

**PART A**  
**GENERAL REQUIREMENTS**  
**SECTION 1 – General**

**MED.A.001 General**

- (a) Medical examiner shall have the power to—
  - (1) perform medical examinations for fitness of a person who is subjected to these Directives;
  - (2) issue a medical certificate to the effect that such person who is subjected to these Directives meets the requirements specified in respect of the medical certificate; and
  - (3) upon an occasion as the CEO requires, conduct medical examination even if a valid medical certificate has been granted by the medical examiner.
- (b) ME shall perform medical examination at the place which has been determined by the CEO.
- (c) The CAAM may approve an appropriately qualified and registered medical practitioner as ME in a foreign country.
- (d) The CEO may designate among the ME, a Chief Medical Assessor (“CMA”) who shall have the power to –
  - (1) review and attest the finding of the medical examination and/or Medical Certificate;
  - (2) in deferred, doubtful medical fitness or in cases of an aircrew or ATCO with compromised medical fitness, convene the CAAM Medical Board; and
  - (3) any other powers as may be determined by the CEO.
- (e) General medical practitioners (“GMP”) shall have the power to –
  - (1) perform medical examinations for fitness of a cabin crew member and an applicant for a cabin crew attestation; and
  - (2) issue a medical certificate to the effect that the cabin crew member and the applicant for a cabin crew attestation meets the requirements specified in respect of the medical certificate.

**MED.A.015 Medical confidentiality**

- (a) All persons involved in medical examination, assessment and certification shall ensure that medical confidentiality is respected at all times.
- (b) However, where aviation safety in air operation is adversely affected by air crew and/or cabin crew member and/or ATCO medical or psychological ailment, public safety shall take priority over medical confidentiality.

**MED.A.020 Decrease in medical fitness**

- (a) Under regulations 62 and 155 of the MCAR, an aircrew and ATCO, respectively who—



- (1) suffers any personal injury involving incapacity to undertake the function to which the licence relates;
  - (2) suffers any illness involving incapacity to undertake those functions throughout the period of more than twenty-one (21) days;
  - (3) knows or has reason to believe that she is pregnant;
  - (4) requires continued treatment with any medical prescription; or
  - (5) has received medical treatment requiring hospitalization,
- shall—
- (i) as soon as possible inform the CAAM in writing of the injury, illness, pregnancy or treatment or as soon as possible after the period of twenty-one (21) days has elapsed in the case of the illness referred to in subparagraph (2); and
  - (ii) not exercise the privileges of the licence and ratings until he has satisfied the medical examiner that his medical fitness has been restored to the standard as specified in these Directives.
- (b) For the purpose of subparagraph (a)(ii), the CMA or ME shall assess the medical fitness of aircrew and ATCO and decide whether they are fit to resume his privileges under the license with or without limitations.

#### **MED.A.025 Obligations of CMA and ME**

- (a) When conducting aero-medical examinations and/or assessments, ME's shall:
- (1) ensure that communication with the person can be established without language barriers; and
  - (2) make the person aware of the consequences of providing incomplete, inaccurate or false statements on their medical history.
- (b) After completion of the aero-medical examinations and/or assessment, the ME shall:
- (1) advise the person whether fit, unfit or referred to CAAM or other ME;
  - (2) inform the person of any limitation that may restrict flight training or the privileges of the license or cabin crew attestation, as applicable;
  - (3) if the person has been assessed as unfit, inform him of his right of a secondary review; and
  - (4) if the person is found fit, issue the medical certificate to the person and submit without delay a signed report including the assessment result to CAAM.
- (c) CMA and MEs shall maintain records with details of medical examinations and assessments performed in accordance with these Directives.
- (d) When required especially in the case of doubt, medical certification should be deferred. MEs, shall submit the completed medical forms and medical records/reports with his comments to the CMA.

## **SECTION 2 – Requirements for Medical Certificates**

### **MED.A.030 Medical certificates**

- (a) A student pilot shall not fly unless that student pilot holds a medical certificate, as required for the relevant license.
- (b) Applicants for and holders of a private pilot license (“PPL”), or a balloon pilot license (“BPL”) shall hold at least a Class 2 medical certificate.
- (d) Applicants for and holders of a BPL involved in commercial balloon flights shall hold at least a Class 2 medical certificate.
- (e) If a night rating is added to a PPL, the license holder shall be colour safe.
- (f) Applicants for and holders of a commercial pilot license (“CPL”), a multi-crew pilot license (“MPL”), or an airline transport pilot license (“ATPL”) shall hold a Class 1 medical certificate.
- (g) ATCO shall hold a Class 3 medical certificate.
- (h) An aircrew and ATCO shall not at any time hold more than one medical certificate issued in accordance with these Directives.

### **MED.A.035 Application for a medical certificate**

- (a) Applications for a medical certificate shall be made in a format established by the CAAM.
- (b) Applicants for a medical certificate shall provide the ME:
  - (1) proof of their identity;
  - (2) a signed declaration:
    - (i) of medical facts concerning their medical history, family history and social history;
    - (ii) as to whether they have previously undergone an examination for a medical certificate and, if so, by whom and with what result; and
    - (iii) as to whether they have ever been assessed as unfit or had a medical certificate suspended or revoked.
- (c) A holder of a licence granted under regulations 59 and 149 of the MCAR shall present the current medical certificate to the ME.

### **MED.A.040 Issue, revalidation and renewal of medical certificates**

- (a) A medical certificate shall only be issued, revalidated or renewed once the required medical examinations and/or assessments have been completed and a fit assessment is made.
- (b) Initial issue:  
Class 1, Class 2 and Class 3 medical certificates shall be issued by a ME and in the case of doubt, by a CMA.

- (c) Revalidation and renewal:  
Class 1, Class 2 and Class 3 medical certificates shall be revalidated or renewed by a ME and in the case of doubt, by a CMA.
- (d) The ME shall only issue, revalidate or renew a medical certificate if:
  - (1) the applicant has provided them with a complete medical history and, if required by the ME, results of medical examinations and tests conducted by the applicant's doctor or any medical specialists; and
  - (2) the ME have conducted the aero-medical assessment based on the medical examinations and tests as required for the relevant medical certificate to verify that the applicant complies with all the relevant requirements of these Directives.
- (e) The ME, in the case of deferral, may require the applicant to undergo additional medical examinations and investigations when clinically indicated before they issue, revalidate or renew a medical certificate. Such deferral shall be notified to CAAM.
- (f) Classes of Medical Assessment. Three classes as follows:
  - (1) Class 1 Medical Assessment which is applicable to applicants for, and holders of:
    - (i) CPL (aeroplane, airship, helicopter and powered-lift);
    - (ii) MPL (aeroplane); and
    - (iii) ATPL (aeroplane, helicopter and powered-lift).
  - (2) Class 2 Medical Assessment which is applicable to applicants for, and holders of:
    - (i) flight navigator license;
    - (ii) flight engineer license;
    - (iii) PPL (aeroplane, airship, helicopter and powered-lift); and
    - (iv) BPL.
  - (3) Class 3 Medical Assessment which is applicable to ATCO. An applicant for an air traffic controller license shall undergo an initial medical examination for the issue of a Class 3 Medical Assessment.

#### **MED.A.045 Validity, revalidation and renewal of medical certificates**

- (a) Validity
  - (1) Class 1 medical certificates shall be valid for a period of 12 months.
  - (2) Notwithstanding paragraph (1), Class 1 medical certificates shall be valid for a period of 6 months in the case of the respective aircrew who:
    - (i) is of the age of 60 or above on the date the medical certificate is issued or on the expiry date of his previous medical certificate, as the case may be; or
    - (ii) are engaged in single-pilot commercial air transport operations carrying passengers and have reached the age of 40.

- (3) Class 2 medical certificates shall be valid for a period of:
  - (i) in the case of the respective aircrew who is of the age of between 40 years and 1 day and below the age of 50 years and 1 day on the date the medical certificate is issued or on the expiry date of his previous medical certificate, as the case may be, 24 months. A medical certificate which is issued preceding the age of 50 years and 1 day shall be valid until the respective aircrew reaches the age of 51 years; and
  - (ii) in the case of the respective aircrew who is of the age of 50 years and 1 day or above on the date the medical certificate is issued or on the expiry date of his previous medical certificate, as the case may be, 12 months.
- (4) Class 3 medical certificates shall be valid for a period of:
  - (i) in the case of the ATCO who is below the age of 40 years and 1 day on the date the medical certificate is issued or on the expiry date of his previous medical certificate, as the case may be, 48 months. A medical certificate which is issued preceding the age of 40 years and 1 day shall be valid until the ATCO reaches the age of 42 years; and
  - (ii) in the case of the ATCO who is of the age of 40 years and 1 day or above on the date the medical certificate is issued or on the expiry date of his previous medical certificate, as the case may be, 24 months.
- (5) The validity period of a medical certificate for any other licenses are as follows:
  - (i) 60 months for the BPL;
  - (ii) 60 months for the PPL (aeroplane, airship, helicopter and powered-lift);
  - (iii) 24 months for the Student Pilot Licence ("SPL");
  - (iv) 12 months for the CPL (aeroplane, airship, helicopter and powered-lift);
  - (v) 12 months for the MPL (aeroplane);
  - (vi) 12 months for the ATPL (aeroplane, helicopter and powered-lift);
  - (vii) 12 months for the flight navigator license; and
  - (viii) 12 months for the flight engineer license.
- (b) Revalidation

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.
- (c) Renewal
  - (1) If the holder of a medical certificate does not comply with paragraph (b) above, a renewal examination and/or assessment shall be required.
  - (2) In the case of Class 1, Class 2 and Class 3 medical certificates:
    - (i) if the medical certificate has expired for more than 2 years, the ME shall only conduct the renewal examination after assessment of the aero-medical records of the applicant; and

- (ii) if the medical certificate has expired for more than 5 years, the examination requirements for initial issue shall apply and the assessment shall be based on the revalidation requirements.

(d) Upgrading License CPL to ATPL

If the holder of a CPL license upgrade his license an ATPL license, the ME shall issue a new medical Class 1 certificate with the letters "ATPL" endorsed on the certificate and a new ATPL license number shall be entered by CAAM. The holder of a CPL license who upgrades to an ATPL license shall provide to the ME the relevant ATPL document and/or test form for verification.

**MED.A.050 Referral**

- (a) If an applicant for a Class 1 or Class 2 or Class 3 medical certificate is referred to CAAM in accordance with MED.B.001 of these Directives, the ME shall transfer the relevant medical documentation to CAAM.

## **PART B**

### **MEDICAL CERTIFICATE REQUIREMENTS FOR AIRCREW AND ATCO SECTION 1 – General**

#### **MED.B.001 Limitations to medical certificates**

- (a) Limitations to Class 1, Class 2 and Class 3 medical certificates:
  - (1) 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 ME shall:
    - (i) in the case of applicants for a Class 1 medical certificate, refer the decision on fitness of the applicant to CAAM as indicated in this Part;
    - (ii) in cases where a referral to CAAM is not indicated in this Subpart, evaluate whether the applicant is able to perform his duties safely when complying with one or more limitations endorsed on the medical certificate, and issue the medical certificate with limitation(s) as necessary, in consultation with CAAM;
    - (iii) in the case of applicants for a Class 2 medical certificate, evaluate whether the applicant is able to perform his 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 CAAM;
    - (iv) in the case of applicants for a Class 3 medical certificate, evaluate whether the applicant is able to perform his 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 CAAM; and
    - (v) the ME may revalidate or renew a medical certificate with the same limitation without referring the applicant to CAAM.
- (b) When assessing whether a limitation is necessary, particular consideration shall be given to:
  - (1) whether 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 license applied for is not likely to jeopardise flight safety; and
  - (2) the applicant's ability, skill and experience relevant to the operation to be performed.
- (c) Operational limitation codes
  - (1) Operational multi-pilot limitation ("OML") (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 CAAM, 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 CAAM.

- (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 CAAM.
- (2) Operational Safety Pilot Limitation (“OSL”) (OSL — Class 2 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 (“PIC”) 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 a ME in consultation with CAAM.
- (3) Operational Passenger Limitation (“OPL”) (OPL — Class 2 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 any class of medical certificates has to be imposed by CAAM.
  - (iii) Any other limitation may be imposed on the holder of a medical certificate if required to ensure flight safety.
  - (iv) Any limitation imposed on the holder of a medical certificate shall be specified therein.

**SECTION 2 – Medical requirements for Class 1, Class 2 and Class 3 Medical Certificates****MED.B.005 General**

- (a) Applicants for a medical certificate shall be free from any:
- (1) abnormality, congenital or acquired;
  - (2) active, latent, acute or chronic disease or disability;
  - (3) wound, injury or sequelae from operation;
  - (4) effect or side effect of any prescribed or non-prescribed therapeutic, diagnostic or preventive medication taken; that would entail a degree of functional incapacity which is likely to interfere with the safe exercise of the privileges of the applicable license or could render the applicant likely to become suddenly unable to exercise the privileges of the license safely.
- (b) In cases where the decision on medical fitness of an applicant for a Class 1 medical certificate is referred to CAAM, CAAM may delegate such a decision to CMA, except in cases where an OML is needed.
- (c) In cases where the decision on medical fitness of an applicant for a Class 2 medical certificate is referred to CAAM, CAAM may delegate such a decision to CMA or a ME, except in cases where an OSL or OPL is needed.
- (d) In cases where the decision on medical fitness of an applicant for a Class 3 medical certificate is referred to CAAM, CAAM may delegate such a decision to CMA or a ME.

**MED.B.006 Type of special examinations for Class 3 medical certificate**

For Class 3 medical certificate, the frequencies and types of special examination are as follows:

Type	Initial Medical	Below the age of 40 years and 1 day	Between the age of 40 years and 1 day and below the age of 50 years and 1 day	Age of 50 years and 1 day or above
ECG	Yes	Every 5 years		Annually
Audiogram	Yes	Every 5 years	Every 2 years	
Chest X-ray	Yes	Every 5 years or if clinically indicated		
Lipid Profile	Yes	Every 5 years or if clinically indicated		
Ophthalmology	Yes	Every 5 years	Every 2 years	

**MED.B.010 Cardiovascular System**

- (a) Examination
- (1) A standard 12-lead resting electrocardiogram ("ECG") and report shall be completed on clinical indication, and:
    - (i) for a Class 1 medical certificate, at the examination for the first issue of a medical certificate, every 5 years until age 30 years, every 2 years until



age 40 years, annually until age 50 years, and at all revalidation or renewal examinations thereafter;

- (ii) for a Class 2 medical certificate, at the examination for the first issue of a medical certificate, age 40 years, age 45 years and every 2 years after age 50 years.
  - (iii) for a Class 3 medical certificate, at the examination for the first issue of a medical certificate, every 5 years until age 50 years and annually thereafter.
- (2) Extended cardiovascular assessment shall be required when clinically indicated.
  - (3) For a Class 1 medical certificate, an extended cardiovascular assessment shall be completed at the first revalidation or renewal examination after age 60 and every 4 years thereafter.
  - (4) For a Class 1 medical certificate, estimation of serum lipids, including cholesterol unless clinically indicated, shall be required at the examination for the first issue of a medical certificate, and at the first examination after having reached the age of 40.

(b) Cardiovascular System — General

- (1) Applicants shall not suffer from any cardiovascular disorder which is likely to interfere with the safe exercise of the privileges of the applicable license(s).
- (2) Applicants for a Class 1 medical certificate with any of the following conditions shall be assessed as unfit:
  - (i) aneurysm of the thoracic or supra-renal abdominal aorta, before or after surgery;
  - (ii) significant functional abnormality of any of the heart valves; and
  - (iii) heart or heart/lung transplantation.
- (3) Applicants for a Class 1 medical certificate with an established history or diagnosis of any of the following conditions shall be referred to CAAM:
  - (i) peripheral arterial disease before or after surgery;
  - (ii) aneurysm of the abdominal aorta, before or after surgery;
  - (iii) functionally insignificant cardiac valvular abnormalities;
  - (iv) after cardiac valve surgery;
  - (v) abnormality of the pericardium, myocardium or endocardium;
  - (vi) congenital abnormality of the heart, before or after corrective surgery;
  - (vii) recurrent vasovagal syncope;
  - (viii) arterial or venous thrombosis;
  - (ix) pulmonary embolism; and

- (x) cardiovascular condition requiring systemic anticoagulant therapy.
  - (4) Applicants for a Class 2 or Class 3 medical certificate with an established diagnosis of one of the conditions specified in paragraph (2) and (3) above shall be assessed by a cardiologist before a fit assessment can be considered in consultation with CAAM.
- (c) Blood Pressure
- (1) The blood pressure shall be recorded at each examination.
  - (2) The applicant's blood pressure shall be within normal limits.
  - (3) Applicants for a Class 1, Class 2 or Class 3 medical certificate:
    - (i) with symptomatic hypotension; or
    - (ii) whose blood pressure at examination consistently exceeds 160 mmHg systolic and/or 95 mmHg diastolic, with or without treatment;shall be assessed as unfit.
  - (4) The initiation of medication for the control of blood pressure shall require a period of temporary suspension 2 to 4 weeks of the medical certificate to establish the absence of significant side effects.
- (d) Coronary Artery Disease
- (1) Applicants for a Class 1 medical certificate with:
    - (i) suspected myocardial ischaemia;
    - (ii) asymptomatic minor coronary artery disease requiring no anti-anginal treatment; shall be referred to CAAM and undergo a cardiological evaluation to exclude myocardial ischaemia before a fit assessment can be considered.
  - (2) Applicants for a Class 2 or Class 3 medical certificate with any of the conditions detailed in paragraph (1) above shall undergo cardiological evaluation before a fit assessment can be considered.
  - (3) Applicants with any of the following conditions shall be assessed as unfit:
    - (i) myocardial ischaemia;
    - (ii) symptomatic coronary artery disease; and
    - (iii) symptoms of coronary artery disease controlled by medication.
  - (4) Applicants for the initial issue of a Class 1 medical certificate with a history or diagnosis of any of the following conditions shall be assessed as unfit:
    - (i) myocardial ischaemia;
    - (ii) myocardial infarction; and
    - (iii) revascularisation for coronary artery disease.
  - (5) Applicants for a Class 2 or Class 3 medical certificate who are asymptomatic

following myocardial infarction or surgery for coronary artery disease shall undergo satisfactory cardiological evaluation before a fit assessment can be considered in consultation with CAAM. Applicants for the revalidation of a Class 1 medical certificate shall be referred to CAAM.

(e) Rhythm/Conduction Disturbances

- (1) Applicants for a Class 1 medical certificate shall be referred to CAAM when they have any significant disturbance of cardiac conduction or rhythm, including any of the following:
  - (i) disturbance of supraventricular rhythm, including intermittent or established sinoatrial dysfunction, atrial fibrillation and/or flutter and asymptomatic sinus pauses;
  - (ii) complete left bundle branch block;
  - (iii) Mobitz type 2 atrioventricular block;
  - (iv) broad and/or narrow complex tachycardia;
  - (v) ventricular pre-excitation;
  - (vi) asymptomatic QT prolongation; and
  - (vii) Brugada pattern on electrocardiography.
- (2) Applicants for a Class 2 or Class 3 medical certificate with any of the conditions detailed in paragraph (1) above shall undergo satisfactory cardiological evaluation before a fit assessment in consultation with CAAM can be considered.
- (3) Applicants with any of the following:
  - (i) incomplete bundle branch block;
  - (ii) complete right bundle branch block;
  - (iii) stable left axis deviation;
  - (iv) asymptomatic sinus bradycardia;
  - (v) asymptomatic sinus tachycardia;
  - (vi) asymptomatic isolated uniform supra-ventricular or ventricular ectopic complexes;
  - (vii) first degree atrioventricular block; and
  - (viii) Mobitz type 1 atrioventricular block; may be assessed as fit in the absence of any other abnormality and subject to satisfactory cardiological evaluation.
- (4) Applicants with a history of:
  - (i) ablation therapy; and
  - (ii) pacemaker implantation;

shall undergo satisfactory cardiovascular evaluation before a fit assessment can be considered. Applicants for a Class 1 medical certificate shall be referred to CAAM. Applicants for a Class 2 medical certificate shall be assessed in consultation with CAAM.

- (5) Applicants with any of the following conditions shall be assessed as unfit:
  - (i) symptomatic sinoatrial disease;
  - (ii) complete atrioventricular block;
  - (iii) symptomatic QT prolongation;
  - (iv) an automatic implantable defibrillating system; and
  - (v) a ventricular anti-tachycardia pacemaker.

#### **MED.B.015 Respiratory System**

- (a) Applicants with significant impairment of pulmonary function shall be assessed as unfit. A fit assessment may be considered once pulmonary function has recovered and is satisfactory.
- (b) For a Class 1 medical certificate, applicants are required to undertake pulmonary function tests at the initial examination and on clinical indication.
- (c) For a Class 2 or Class 3 medical certificate, applicants are required to undertake pulmonary function tests on clinical indication.
- (d) Applicants with a history or established diagnosis of:
  - (1) asthma requiring medication;
  - (2) active inflammatory disease of the respiratory system;
  - (3) active sarcoidosis;
  - (4) pneumothorax;
  - (5) sleep apnoea syndrome;
  - (6) major thoracic surgery; and
  - (7) pneumonectomy;

shall undergo respiratory evaluation with a satisfactory result before a fit assessment can be considered. Applicants with an established diagnosis of the conditions specified in paragraph (3) and (5) above shall undergo satisfactory cardiological evaluation before a fit assessment can be considered.
- (e) Aero-medical assessment:
  - (1) applicants for a Class 1 medical certificate with any of the conditions detailed in paragraph (d) above shall be referred to CAAM; and
  - (2) applicants for a Class 2 or Class 3 medical certificate with any of the conditions detailed in paragraph (d) above shall be assessed in consultation with CAAM.

- (f) Applicants for a Class 1 medical certificate who have undergone a total pneumonectomy shall be assessed as unfit.

#### **MED.B.020 Digestive System**

- (a) Applicants shall not possess any functional or structural disease of the gastro-intestinal tract or its adnexa which is likely to interfere with the safe exercise of the privileges of the applicable license(s).
- (b) Applicants with any sequelae of disease or surgical intervention in 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.
- (c) Applicants shall be free from herniae that might give rise to incapacitating symptoms.
- (d) Applicants with disorders of the gastro-intestinal system including:
  - (1) recurrent dyspeptic disorder requiring medication;
  - (2) pancreatitis;
  - (3) symptomatic gallstones;
  - (4) an established diagnosis or history of chronic inflammatory bowel disease; and
  - (5) after surgical operation on the digestive tract or its adnexa, including surgery involving total or partial excision or a diversion of any of these organs; shall be assessed as unfit. A fit assessment may be considered after successful treatment or full recovery after surgery and subject to satisfactory gastroenterological evaluation.
- (e) Aero-medical assessment:
  - (1) applicants for a Class 1 medical certificate with the diagnosis of the conditions specified in paragraph (d)(2), (d)(4) and (d)(5) above shall be referred to CAAM; and
  - (2) fitness of Class 2 or Class 3 applicants with pancreatitis shall be assessed in consultation with CAAM.

#### **MED.B.025 Metabolic and Endocrine Systems**

- (a) Applicants shall not possess any functional or structural metabolic, nutritional or endocrine disorder which is likely to interfere with the safe exercise of the privileges of the applicable license(s).
- (b) Applicants with metabolic, nutritional or endocrine dysfunction may be assessed as fit subject to demonstrated stability of the condition and satisfactory aero-medical evaluation.
- (c) Diabetes mellitus
  - (1) Applicants with diabetes mellitus requiring insulin shall be assessed as unfit.
  - (2) Applicants with diabetes mellitus not requiring insulin shall be assessed as unfit unless it can be demonstrated that blood sugar control has been achieved.

- (d) Aero-medical assessment:
  - (1) applicants for a Class 1 medical certificate requiring medication other than insulin for blood sugar control shall be referred to CAAM; and
  - (2) fitness of Class 2 or Class 3 applicants requiring medication other than insulin for blood sugar control shall be assessed in consultation with CAAM.

#### **MED.B.030 Haematology**

- (a) Applicants shall not possess any haematological disease which is likely to interfere with the safe exercise of the privileges of the applicable license(s).
- (b) For a Class 1 medical certificate, haemoglobin shall be tested at each examination for the issue of a medical certificate.
- (c) Applicants with a haematological condition, such as:
  - (1) coagulation, haemorrhagic or thrombotic disorder; and
  - (2) chronic leukaemia; may be assessed as fit subject to satisfactory aeromedical evaluation.
- (d) Aero-medical assessment:
  - (1) applicants for a Class 1, medical certificate with one of the conditions specified in paragraph (c) above shall be referred to CAAM; and
  - (2) fitness of Class 2 or Class 3 applicants with one of the conditions specified in paragraph (c) above shall be assessed in consultation with CAAM.
- (e) Class 1 applicants with one of the haematological conditions specified below shall be referred to CAAM:
  - (1) abnormal haemoglobin, including, but not limited to anaemia, polycythaemia or haemoglobinopathy;
  - (2) significant lymphatic enlargement; and
  - (3) enlargement of the spleen.

#### **MED.B.035 Genitourinary System**

- (a) Applicants shall not possess any functional or structural disease of the renal or genitourinary system or its adnexa which is likely to interfere with the safe exercise of the privileges of the applicable license(s).
- (b) Urinalysis shall form part of every aero-medical examination. The urine shall contain no abnormal element considered to be of pathological significance.
- (c) Applicants with any sequela of disease or surgical procedures on the kidneys or the urinary tract likely to cause incapacitation, in particular any obstruction due to stricture or compression shall be assessed as unfit.
- (d) Applicants with a genitourinary disorder, such as:
  - (1) renal disease; and

- (2) one or more urinary calculi, or a history of renal colic; may be assessed as fit subject to satisfactory renal/urological evaluation.
- (e) Applicants who have undergone a major surgical operation in the urinary apparatus involving a total or partial excision or a diversion of its organs shall be assessed as unfit and be re-assessed after full recovery before a fit assessment can be considered. Applicants for a Class 1, Class 2 and Class 3 medical certificate shall be referred to CAAM for the re-assessment.

#### **MED.B.040 Infectious Disease**

- (a) Applicants shall have no established medical history or clinical diagnosis of any infectious disease which is likely to interfere with the safe exercise of the privileges of the applicable license held.
- (b) Applicants who are HIV positive may be assessed as fit subject to satisfactory aero-medical evaluation. Applicants for a Class 1, Class 2 and Class 3 medical certificate shall be referred to CAAM.

#### **MED.B.045 Obstetrics and Gynaecology**

- (a) Applicants shall not possess any functional or structural obstetric or gynaecological condition which is likely to interfere with the safe exercise of the privileges of the applicable license(s).
- (b) Applicants who have undergone a major gynaecological operation shall be assessed as unfit until full recovery.
- (c) Pregnancy
  - (1) License holder not to act as member of flight crew once she knows or has reason to believe that she is pregnant.
  - (2) For Class 3 applicants with a low-risk uncomplicated pregnancy, evaluated the fit assessment should be limited to the period until the end of the 34<sup>th</sup> week of gestation.
  - (3) During the gestational period, precautions should be taken for the timely relief of an ATCO in the event of early onset of labour or other complications.
  - (4) Following confinement or termination of pregnancy the applicant shall not be permitted to exercise the privileges of her license 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.

#### **MED.B.050 Musculoskeletal System**

- (a) Applicants shall not possess any abnormality of the bones, joints, muscles or tendons, congenital or acquired which is likely to interfere with the safe exercise of the privileges of the applicable license(s).
- (b) An applicant shall have sufficient sitting height, arm and leg length and muscular strength for the safe exercise of the privileges of the applicable license(s).
- (c) An applicant shall have satisfactory functional use of the musculoskeletal system to enable the safe exercise of the privileges of the applicable license(s). Fitness of the applicants shall be assessed in consultation with CAAM.

### **MED.B.055 Psychiatry**

- (a) Applicants shall have no established medical history or clinical diagnosis of any psychiatric disease or disability, condition or disorder, acute or chronic, congenital or acquired, which is likely to interfere with the safe exercise of the privileges of the applicable license(s).
- (b) Applicants with a mental or behavioural disorder due to alcohol or other use or abuse of psychotropic substances shall be assessed as unfit pending recovery and freedom from substance use and subject to satisfactory psychiatric evaluation after successful treatment. Applicants for a Class 1 medical certificate shall be referred to CAAM. Fitness of Class 2 or Class 3 applicants shall be assessed in consultation with CAAM.
- (c) Applicants with a psychiatric condition such as:
  - (1) mood disorder;
  - (2) neurotic disorder;
  - (3) personality disorder; and
  - (4) mental or behavioural disorder; shall undergo satisfactory psychiatric evaluation before a fit assessment can be made.
- (d) Applicants with a history of a single or repeated acts of deliberate self-harm shall be assessed as unfit. Applicants shall undergo satisfactory psychiatric evaluation before a fit assessment can be considered.
- (e) Aero-medical assessment:
  - (1) applicants for a Class 1 medical certificate with one of the conditions detailed in paragraph (b), (c) or (d) above shall be referred to CAAM; and
  - (2) fitness of Class 2 or Class 3 applicants with one of the conditions detailed in paragraph (b), (c) or (d) above shall be assessed in consultation with CAAM.
- (f) Applicants with an established history or clinical diagnosis of schizophrenia, schizotypal or delusional disorder shall be assessed as unfit.

### **MED.B.060 Psychology**

- (a) Applicants shall have no established psychological deficiencies, which are likely to interfere with the safe exercise of the privileges of the applicable license(s).
- (b) A psychological evaluation may be required as part of, or complementary to, a specialist psychiatric or neurological examination.

### **MED.B.065 Neurology**

- (a) Applicants shall have no established medical history or clinical diagnosis of any neurological condition which is likely to interfere with the safe exercise of the privileges of the applicable license(s).
- (b) Applicants with an established history or clinical diagnosis of:
  - (1) epilepsy; and
  - (2) recurring episodes of disturbance of consciousness of uncertain cause; shall be



assessed as unfit.

- (c) Applicants with an established history or clinical diagnosis of:
  - (1) epilepsy without recurrence after age 5;
  - (2) epilepsy without recurrence and off all treatment for more than 10 years;
  - (3) epileptiform EEG abnormalities and focal slow waves;
  - (4) progressive or non-progressive disease of the nervous system;
  - (5) a single episode of disturbance of consciousness of uncertain cause;
  - (6) loss of consciousness after head injury;
  - (7) penetrating brain injury; and
  - (8) spinal or peripheral nerve injury;shall undergo further evaluation before a fit assessment can be considered. Applicants for a Class 1 medical certificate shall be referred to CAAM. Fitness of Class 2 or Class 3 applicants shall be assessed in consultation with CAAM

#### **MED.B.070 Visual System**

- (a) Applicants shall not possess any abnormality of the function of the eyes or their adnexa or any active pathological condition, congenital or acquired, acute or chronic, or any sequelae of eye surgery or trauma, which is likely to interfere with the safe exercise of the privileges of the applicable license(s).
- (b) Examination
  - (1) For a Class 1 medical certificate:
    - (i) a comprehensive eye examination shall form part of the initial examination and be undertaken periodically depending on the refraction and the functional performance of the eye; and
    - (ii) a routine eye examination shall form part of all revalidation and renewal examinations.
  - (2) For a Class 2 or Class 3 medical certificate:
    - (i) a routine eye examination shall form part of the initial and all revalidation and renewal examinations; and
    - (ii) a comprehensive eye examination shall be undertaken when clinically indicated.
- (c) Distant visual acuity, with or without correction, shall be:
  - (1) in the case of Class 1 medical certificates, 6/9 (0,7) or better in each eye separately and visual acuity with both eyes shall be 6/6 (1,0) or better;
  - (2) in the case of an applicants for an initial Class 1 medical certificate with substandard vision in one eye shall be assessed as unfit. At revalidation, applicants with acquired substandard vision in one eye shall be referred to CAAM and may be assessed as fit if it is unlikely to interfere with safe exercise of the

license held.;

- (3) in the case of Class 2 medical certificates, 6/12 (0,5) or better in each eye separately and visual acuity with both eyes shall be 6/9 (0,7) or better. An applicant with substandard vision in one eye may be assessed as fit in consultation with CAAM subject to satisfactory ophthalmic assessment; and
- (4) in the case of Class 3 medical certificates, 6/9 (0,7) or better in each eye separately and visual acuity with both eyes shall be 6/6 (1,0) or better. An applicant with substandard vision in one eye may be assessed as fit in consultation with CAAM subject to satisfactory ophthalmic assessment. Applicants for an initial Class 3 medical certificate whose uncorrected distant visual acuity in either eye is worse than 6/60 shall be required to provide a full ophthalmic report and every five years thereafter.
- (d) An applicant shall be able to read an N5 chart (or equivalent) at 30-50 cm and an N14 chart (or equivalent) at 100 cm, with correction, if prescribed.
- (e) Applicants for a Class 1 medical certificate shall be required to have normal fields of vision and normal binocular function.
- (f) Applicants who have undergone eye surgery may be assessed as fit subject to satisfactory ophthalmic evaluation.
- (g) Applicants with a clinical diagnosis of keratoconus may be assessed as fit subject to a satisfactory examination by an ophthalmologist. Applicants for a Class 1 medical certificate shall be referred to CAAM.
- (h) Applicants with:
  - (1) astigmatism; and
  - (2) anisometropia; may be assessed as fit subject to satisfactory ophthalmic evaluation.
- (i) Applicants with diplopia shall be assessed as unfit.
- (j) Spectacles and contact lenses. If satisfactory visual function is achieved only with the use of correction:
  - (1) (i) for distant vision, spectacles or contact lenses shall be worn whilst exercising the privileges of the applicable license(s); and
  - (ii) for near vision, a pair of spectacles for near use shall be kept available during the exercise of the privileges of the license;
  - (2) a spare set of similarly correcting spectacles shall be readily available for immediate use whilst exercising the privileges of the applicable license(s);
  - (3) the correction shall provide optimal visual function, be well-tolerated and suitable for aviation purposes;
  - (4) if contact lenses are worn, they shall be for distant vision, monofocal, non-tinted and well tolerated;
  - (5) applicants with a large refractive error shall use contact lenses or high-index spectacle lenses;

- (6) no more than one pair of spectacles shall be used to meet the visual requirements; and
- (7) orthokeratological lenses shall not be used.

**MED.B.075 Colour vision**

- (a) Applicants shall be required to demonstrate the ability to perceive readily the colours that are necessary for the safe performance of duties.
- (b) Examination
  - (1) Applicants shall pass the Ishihara test for the initial issue of a medical certificate.
  - (2) Applicants who fail to pass in the Ishihara test shall undergo further colour perception testing to establish whether they are colour safe.
- (c) In the case of Class 1 medical certificates, applicants shall have normal perception of colours or be colour safe. Applicants who fail further colour perception testing shall be assessed as unfit. Applicants for a Class 1 medical certificate shall be referred to CAAM.
- (d) In the case of Class 2 medical certificates, when the applicant does not have satisfactory perception of colours, his flying privileges shall be limited to daytime only.
- (e) In the case of Class 3 medical certificates, when the applicant does not have satisfactory perception of colours, his privileges shall be limited to daytime only.

**MED.B.080 Otorhino-laryngology**

- (a) Applicants shall not possess any abnormality of the function of the ears, nose, sinuses or throat, including oral cavity, teeth and larynx, or any active pathological condition, congenital or acquired, acute or chronic, or any sequelae of surgery or trauma which is likely to interfere with the safe exercise of the privileges of the applicable license(s).
- (b) Hearing shall be satisfactory for the safe exercise of the privileges of the applicable license(s).
- (c) Examination
  - (1) Hearing shall be tested at all examinations.
    - (i) In the case of Class 1 medical certificates and Class 2 medical certificates, when an instrument rating is to be added to the license held, hearing shall be tested with pure tone audiometry at the initial examination and, at subsequent revalidation or renewal examinations, every 5 years until the age 40 and every 2 years thereafter. Applicants for Class 3 Medical Assessments shall be tested by pure-tone audiometry at first issue of the Assessment, not less than once every 4 years up to the age of 40 years, and thereafter not less than once every 2 years.
    - (ii) When tested on a pure-tone audiometer, initial applicants shall not have a hearing loss 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, in either ear separately. Applicants for revalidation or renewal, with greater hearing loss shall demonstrate satisfactory functional hearing ability.
    - (iii) Applicants with hypoacusis shall demonstrate satisfactory functional hearing ability.

- (2) A comprehensive ear, nose and throat examination shall be undertaken for the initial issue of a Class 1, Class 2 or Class 3 medical certificate and periodically thereafter when clinically indicated.
- (d) Applicants for a Class 1 or Class 3 medical certificate with:
  - (1) an active pathological process, acute or chronic, of the internal or middle ear;
  - (2) unhealed perforation or dysfunction of the tympanic membrane(s);
  - (3) disturbance of vestibular function;
  - (4) significant restriction of the nasal passages;
  - (5) sinus dysfunction;
  - (6) significant malformation or significant, acute or chronic infection of the oral cavity or upper respiratory tract; and
  - (7) significant disorder of speech or voice;  
shall undergo further medical examination and assessment to establish that the condition does not interfere with the safe exercise of the privileges of the license held.
- (e) Aero-medical assessment:
  - (1) applicants for a Class 1 medical certificate with the disturbance of vestibular function shall be referred to CAAM; and
  - (2) fitness of Class 2 or Class 3 applicants with the disturbance of vestibular function shall be assessed in consultation with CAAM.

#### **MED.B.085 Dermatology**

Applicants shall have no established dermatological condition likely to interfere with the safe exercise of the privileges of the applicable license(s) held.

#### **MED.B.090 Oncology**

- (a) Applicants shall have no established primary or secondary malignant disease likely to interfere with the safe exercise of the privileges of the applicable license(s).
- (b) After treatment for malignant disease, applicants shall undergo satisfactory oncological evaluation before a fit assessment can be made. Class 1 applicant shall be referred to CAAM. Fitness of Class 2 or Class 3 applicant shall be assessed in consultation with CAAM.
- (c) Applicants with an established history or clinical diagnosis of intracerebral malignant tumour shall be assessed as unfit.

## **PART C**

### **MEDICAL FITNESS REQUIREMENTS FOR CABIN CREW MEMBER SECTION 1 – General**

#### **MED.C.001 General**

No person shall act as a cabin crew member unless he fulfills the requirement as specified in these Directives.

#### **MED.C.005 General medical assessments**

- (a) Cabin crew member and applicant for a cabin crew attestation shall undergo general medical assessments to verify that they are free from any physical or mental illness which might lead to incapacitation or an inability to perform their assigned safety duties and responsibilities.
- (b) Each cabin crew member shall undergo a general medical assessment before being first assigned to duties on an aircraft and after that at intervals of maximum 60 months.
- (c) General medical assessments shall be conducted by the CMA, ME or GMP.

### **SECTION 2 – Requirements for General Medical Assessment**

#### **MED.C.020 General**

Cabin crew members shall be free from any:

- (a) abnormality, congenital or acquired;
- (b) active, latent, acute or chronic disease or disability;
- (c) wound, injury or sequelae from operation; and
- (d) effect or side effect of any prescribed or non-prescribed therapeutic, diagnostic or preventive medication taken that would entail a degree of functional incapacity which might lead to incapacitation or an inability to discharge their safety duties and responsibilities.

#### **MED.C.025 Content of General medical assessments**

- (a) An initial general medical assessment shall include at least:
  - (1) an assessment of the cabin crew member's medical history; and
  - (2) a clinical examination of the following:
    - (i) cardiovascular system;
    - (ii) respiratory system;
    - (iii) musculoskeletal system;
    - (iv) otorhino-laryngology;
    - (v) visual system; and

- (vi) colour vision.
- (b) Each subsequent medical re-assessment shall include:
  - (1) an assessment of the cabin crew member's medical history; and
  - (2) a clinical examination if deemed necessary in accordance with medical best practice.
- (c) For the purpose of paragraphs (a) and (b) above, in case of any doubt or if clinically indicated, a cabin crew member's general medical assessment shall also include any additional medical examination, test or investigation that are considered necessary by the CMA, ME or GMP.

### **SECTION 3 – Additional Requirements**

#### **MED.C.030 Cabin crew medical report**

- (a) After completion of each general medical assessment, cabin crew member:
  - (1) shall be provided with a cabin crew medical report by the CMA, ME or GMP; and
  - (2) shall provide the related information, or a copy of their cabin crew medical report to the operator(s) employing their services.
- (b) Cabin crew medical report  
A cabin crew medical report shall indicate the date of the medical assessment, whether the cabin crew member has been assessed fit or unfit, the date of the next required general medical assessment and, if applicable, any limitation(s). Any other elements shall be subjected to medical confidentiality in accordance with MED.A.015 of these Directives.
- (c) The cabin crew medical report shall be valid for a period not exceeding 60 months.

**SECTION 4 – The applicant for a cabin crew member attestation**

Sections 2 and 3 shall apply *mutatis mutandis* to the applicant for a cabin crew member attestation.

## **PART D**

### **MEDICAL EXAMINER AND GENERAL MEDICAL PRACTITIONER SECTION 1 –Medical Examiners (“ME”)**

#### **MED.D.001 Privileges**

- (a) The privileges of a ME are to conduct medical examinations and assessments and to issue, revalidate and renew three Classes of medical certificates.
- (b) The scope of the privileges of the ME, and any condition thereof, shall be specified in the certificate.
- (c) ME shall not undertake aero-medical examinations and assessments in Malaysia, unless they have:
  - (1) been approved by CAAM to exercise their professional activities as a specialised doctor at the place of practice; and
  - (2) received a briefing from the CMA.

#### **MED.D.005 Application**

- (a) Application for a certificate as a ME shall be made in a form and manner as may be determined by the CEO accompanied by the prescribed fee for the application.
- (b) Applicants for a ME certificate shall provide CAAM with:
  - (1) personal details and professional address;
  - (2) documentation demonstrating that they comply with the requirements established in MED.D.010 of these Directives, including a certificate of completion of the training course in aviation medicine appropriate to the privileges they apply for; and
  - (3) a written declaration that the ME will issue medical certificates on the basis of the requirements of these Directives;
- (c) the ME application form for appointment and re-appointment is as per Appendix A and ME application process is as per Appendix C.

#### **MED.D.010 Requirements for the issue of a ME certificate**

Applicants for a ME certificate shall:

- (a) be fully qualified and licensed for the practice of medicine and hold a Certificate of Completion of specialist training;
- (b) have undertaken a basic training course in aviation medicine and have working experience in an aviation environment; and
- (c) demonstrate to CAAM that they:
  - (1) have adequate facilities, procedures, documentation and functioning equipment suitable for aero-medical examinations; and
  - (2) have in place the necessary procedures and conditions to ensure medical confidentiality.



**MED.D.020 Training courses in aviation medicine**

- (a) Training courses in aviation medicine shall be approved by CAAM.
- (b) Except in the case of refresher training, the courses shall be concluded by a written examination on the subjects included in the course content.
- (c) The organisation providing the course shall issue a certificate of completion to applicants when they have obtained a pass in the examination.
- (d) Basic Training Course for the issuance of Class 2 and Class 3 Medical Certificate shall be as follows:
  - (1) Basic training course in aviation medicine 60 hours
    - (i) Introduction to aviation medicine 2 hours
      - (A) History of aviation medicine
      - (B) Specific aspects of civil aviation medicine
      - (C) Different types of recreational flying
      - (D) AME and pilots relationship
      - (E) Responsibility of the AME in aviation safety
      - (F) Communication and interview techniques
  - (2) Basic aeronautical knowledge 2 hours
    - (A) Flight mechanisms
    - (B) Man–machine interface, informational processing
    - (C) Propulsion
    - (D) Conventional instruments, 'glass cockpit'
    - (E) Recreational flying
    - (F) Simulator/aircraft experience
  - (3) Aviation physiology 9 hours
    - (i) Atmosphere
      - (A) Functional limits for humans in flight
      - (B) Divisions of the atmosphere
      - (C) Gas laws — physiological significance
      - (D) Physiological effects of decompression

- (ii) Respiration
  - (A) Blood gas exchange
  - (B) Oxygen saturation
- (iii) Hypoxia signs and symptoms
  - (A) Average time of useful consciousness (TUC)
  - (B) Hyperventilation signs and symptoms
  - (C) Barotrauma
  - (D) Decompression sickness
- (iv) Acceleration
  - (A) G-Vector orientation
  - (B) Effects and limits of G-load
  - (C) Methods to increase Gz-tolerance
  - (D) Positive/negative acceleration
  - (E) Acceleration and the vestibular system
- (v) Visual disorientation
  - (A) Sloping cloud deck
  - (B) Ground lights and stars confusion
  - (C) Visual autokinesis
- (vi) Vestibular disorientation
  - (A) Anatomy of the inner ear
  - (B) Function of the semicircular canals
  - (C) Function of the otolith organs
  - (D) The oculogyral and coriolis illusion
  - (E) 'Leans'
  - (F) Forward acceleration illusion of 'nose up'

- (G) Deceleration illusion of 'nose down'
  - (H) Motion sickness — causes and management
- (vii) Noise and vibration
  - (A) Preventive measures
- (4) Cardiovascular system 3 hours
- (i) Relation to aviation; risk of incapacitation
  - (ii) Examination procedures: ECG, laboratory testing and other special examinations
  - (iii) Cardiovascular diseases:
    - (A) Hypertension, treatment and assessment
    - (B) Ischaemic heart disease
    - (C) ECG findings
    - (D) Assessment of satisfactory recovery from myocardial infarction, interventional procedures and surgery
    - (E) Cardiomyopathies; pericarditis; rheumatic heart disease; valvular diseases
    - (F) Rhythm and conduction disturbances, treatment and assessment
    - (G) Congenital heart disease: surgical treatment, assessment
    - (H) Cardiovascular syncope: single and repeated episodes
- Topics (5) to (11) inclusive, and (17) 10 hours
- (5) Respiratory system
  - (i) Relation to aviation, risk of incapacitation
    - (ii) Examination procedures: spirometry, peak flow, x-ray, other examinations
    - (iii) Pulmonary diseases: asthma, chronic obstructive pulmonary diseases
    - (iv) Infections, tuberculosis

- (v) Bullae, pneumothorax
- (vi) Obstructive sleep apnoea
- (vii) Treatment and assessment
- (6) Digestive system
  - (i) Relation to aviation, risk of incapacitation
  - (ii) Examination of the system
  - (iii) Gastro-intestinal disorders: gastritis, ulcer disease
  - (iv) Biliary tract disorders
  - (v) Hepatitis and pancreatitis
  - (vi) Inflammatory bowel disease, irritable colon/irritable bowel disease
  - (vii) Herniae
  - (viii) Treatment and assessment including post-abdominal surgery
- (7) Metabolic and endocrine systems
  - (i) Relation to aviation, risk of incapacitation
  - (ii) Endocrine disorders
  - (iii) Diabetes mellitus Type 1 & 2
    - (A) Diagnostic tests and criteria
    - (B) Anti-diabetic therapy
    - (C) Operational aspects in aviation
    - (D) Satisfactory control criteria for aviation
  - (iv) Hyper/hypothyroidism
  - (v) Pituitary and adrenal glands disorders
  - (vi) Treatment and assessment
- (8) Haematology

- (i) Relation to aviation, risk of incapacitation
  - (ii) Blood donation aspects
  - (iii) Erythrocytosis; anaemia; leukaemia; lymphoma
  - (iv) Sickle cell disorders
  - (v) Platelet disorders
  - (vi) Haemoglobinopathies; geographical distribution; classification
  - (vii) Treatment and assessment
- (9) Genitourinary system
- (i) Relation to aviation, risk of incapacitation
  - (ii) Action to be taken after discovery of abnormalities in routine dipstick urinalysis, e.g. haematuria; albuminuria
  - (iii) Urinary system disorders:
    - (A) Nephritis; pyelonephritis; obstructive uropathies
    - (B) Tuberculosis
    - (C) Lithiasis: single episode; recurrence
    - (D) Nephrectomy, transplantation, other treatment and assessment
- (10) Obstetrics and gynaecology
- (i) Relation to aviation, risk of incapacitation
  - (ii) Pregnancy and aviation
  - (iii) Disorders, treatment and assessment
- (11) Musculoskeletal system
- (i) Vertebral column diseases
  - (ii) Arthropathies and arthroprosthesis
  - (iii) Pilots with a physical impairment
  - (iv) Treatment of musculoskeletal system, assessment for flying

- (12) Psychiatry 2 hours
  - (i) Relation to aviation, risk of incapacitation
  - (ii) Psychiatric examination
  - (iii) Psychiatric disorders: neurosis; personality disorders; psychosis; organic mental illness
  - (iv) Alcohol and other psychoactive substance(s) use
  - (v) Treatment, rehabilitation and assessment
- (13) Psychology 2 hours
  - (i) Introduction to psychology in aviation as a supplement to psychiatric assessment
  - (ii) Methods of psychological examination
  - (iii) Behaviour and personality
  - (iv) Workload management and situational awareness
  - (v) Flight motivation and suitability
  - (vi) Group social factors
  - (vii) Psychological stress, stress coping, fatigue
  - (viii) Psychomotor functions and age
  - (ix) Mental fitness and training
- (14) Neurology 3 hours
  - (i) Relation to aviation, risk of incapacitation
  - (ii) Examination procedures
  - (iii) Neurological disorders
    - (A) Seizures — assessment of single episode
    - (B) Epilepsy
    - (C) Multiple sclerosis
    - (D) Head trauma

- (E) Post-traumatic states
- (F) Vascular diseases
- (G) Tumours
- (H) Disturbance of consciousness — assessment of single and repeated episodes
- (iv) Degenerative diseases
- (v) Sleep disorders
- (vi) Treatment and assessment
- (15) Visual system and colour vision 4 hours
  - (i) Anatomy of the eye
  - (ii) Relation to aviation duties
  - (iii) Examination techniques
    - (A) Visual acuity assessment
    - (B) Visual aids
    - (C) Visual fields — acceptable limits for certification
    - (D) Ocular muscle balance
    - (E) Assessment of pathological eye conditions
    - (F) Glaucoma
  - (iv) Monocularity and medical flight tests
  - (v) Colour vision
  - (vi) Methods of testing: pseudoisochromatic plates, lantern tests, anomaloscopy
  - (vii) Importance of standardisation of tests and of test protocols
  - (viii) Assessment after eye surgery
- (16) Otorhinolaryngology 3 hours
  - (i) Anatomy of the systems

- (ii) Clinical examination in ORL
- (iii) Functional hearing tests
- (iv) Vestibular system; vertigo, examination techniques
- (v) Assessment after ENT surgery
- (vi) Barotrauma ears and sinuses
- (vii) Aeronautical ENT pathology
- (viii) ENT requirements
- (17) Oncology
  - (i) Relation to aviation, risk of metastasis and incapacitation
  - (ii) Risk management
  - (iii) Different methods of treatment and assessment
- (18) Incidents and accidents, escape and survival 1 hour
  - (i) Accident statistics
  - (ii) Injuries
  - (iii) Aviation pathology, post-mortem examination, identification
  - (iv) Aircraft evacuation
    - (A) Fire
    - (B) Ditching
    - (C) By parachute
- (19) Medication and flying 2 hours
  - (i) Hazards of medications
  - (ii) Common side effects; prescription medications; over-the-counter medications; herbal medications; 'alternative' therapies
  - (iii) Medication for sleep disturbance
- (20) Legislation, rules and regulations 4 hours



- (i) ICAO Standards and Recommended Practices, (e.g. Implementing Rules, AMC and GM)
- (ii) Incapacitation: acceptable aero-medical risk of incapacitation; types of incapacitation; operational aspects
- (iii) Basic principles in assessment of fitness for aviation
- (iv) Operational and environmental conditions
- (v) Use of medical literature in assessing medical fitness; differences between scientific study populations and licensed populations
- (vi) Flexibility
- (vii) Annex 1 to the Chicago Convention, paragraph 1.2.4.9
- (viii) Accredited Medical Conclusion; consideration of knowledge, skill and experience
- (ix) Trained versus untrained crews; incapacitation training
- (x) Medical flight tests
- (21) Cabin crew working environment 1 hour
  - (i) Cabin environment, workload, duty and rest time, fatigue risk management
  - (ii) Cabin crew safety duties and associated training
  - (iii) Types of aircraft and types of operations
  - (iv) Single-cabin crew and multi-cabin crew operations
- (22) In-flight environment 1 hour
  - (i) Hygiene aboard aircraft: water supply, oxygen supply, disposal of waste, cleaning, disinfection and disinsection
  - (ii) Catering
  - (iii) Crew nutrition
  - (iv) Aircraft and transmission of diseases
- (23) Space medicine 1 hour
  - (i) Microgravity and metabolism, life sciences

- (24) Practical demonstrations of basic aeronautical knowledge 8 hours
- (25) Concluding items 2 hours
  - (i) Final examination
  - (ii) De-briefing and critique
- (e) Advance Training Course for the issuance of Class 1 Medical Certificate shall be as follows:
  - (a) Advanced training course in aviation medicine 66 hours
    - (1) Pilot working environment 6 hours
      - (i) Commercial aircraft flight crew compartment
      - (ii) Business jets, commuter flights, cargo flights
      - (iii) Professional airline operations
      - (iv) Fixed wing and helicopter, specialised operations including aerial work
      - (v) Air traffic control
      - (vi) Single-pilot/multi-pilot
      - (vii) Exposure to radiation and other harmful agents
    - (2) Aerospace physiology 4 hours
      - (i) Brief review of basics in physiology (hypoxia, rapid/slow decompression, hyperventilation, acceleration, ejection, spatial disorientation)
      - (ii) Simulator sickness
  - (3) Clinical medicine 5 hours
    - (i) Complete physical examination
    - (ii) Review of basics with relationship to commercial flight operations
    - (iii) Class 1 requirements
    - (iv) Clinical cases
- (v) Communication and interview techniques
- (4) Cardiovascular system 4 hours
  - (i) Cardiovascular examination and review of basics
  - (ii) Class 1 requirements
- (iii) Diagnostic steps in cardiovascular system
  - (iv) Clinical cases

- (5) Neurology 3 hours
- (i) Brief review of basics (neurological and psychiatric examination)
  - (ii) Alcohol and other psychoactive substance(s) use
  - (iii) Class 1 requirements
  - (iv) Clinical cases
- (6) Psychiatry/psychology 5 hours
- (i) Brief review of basics (psychiatric/psychological evaluation techniques)
  - (ii) Alcohol and other psychoactive substance(s) use
  - (iii) Class 1 requirements
  - (iv) Clinical cases
- (7) Visual system and colour vision 5 hours
- (i) Brief review of basics (visual acuity, refraction, colour vision, visual fields, night vision, stereopsis, monocularly)
  - (ii) Class 1 visual requirements
  - (iii) Implications of refractive and other eye surgery
  - (iv) Clinical cases
- (8) Otorhinolaryngology 4 hours
- (i) Brief review of basics (barotrauma — ears and sinuses, functional hearing tests)
  - (ii) Noise and its prevention
  - (iii) Vibration, kinetosis
  - (iv) Class 1 hearing requirements
  - (v) Clinical cases
- (9) Dentistry 2 hours
- (i) Oral examination including dental formula
  - (ii) Oral cavity, dental disorders and treatment, including implants, fillings, prosthesis, etc.
  - (iii) Barodontalgia

- (iv) Clinical cases
- (10) Human factors in aviation, including 8 hours demonstration and practical experience 22 hours
  - (i) Long-haul flight operations
    - (A) Flight time limitations
    - (B) Sleep disturbance
    - (C) Extended/expanded crew
    - (D) Jet lag/time zones
  - (ii) Human information processing and system design
    - (A) Flight Management System (FMS), Primary Flight Display (PFD), datalink, fly by wire
    - (B) Adaptation to the glass cockpit
    - (C) Crew Coordination Concept (CCC), Crew Resource Management (CRM), Line Oriented Flight Training (LOFT) etc.
    - (D) Practical simulator training
    - (E) Ergonomics
  - (iii) Crew commonality
    - (A) Flying under the same type rating, e.g. A-318, A-319, A-320, A-321
  - (iv) Human factors in aircraft incidents and accidents
  - (v) Flight safety strategies in commercial aviation
  - (vi) Fear and refusal of flying
  - (vii) Psychological selection criteria
  - (viii) Operational requirements (flight time limitation, fatigue risk management, etc.)
- (11) Incidents and accidents, escape and survival 2 hours
  - (i) Accident statistics

- (ii) Types of injuries
- (iii) Aviation pathology, post-mortem examination related to aircraft accidents, identification
- (iv) Rescue and emergency evacuation
- (12) Tropical medicine 2 hours
  - (i) Endemicity of tropical disease
  - (ii) Infectious diseases (communicable diseases, sexually transmitted diseases, HIV etc.)
  - (iii) Vaccination of flight crew and passengers
  - (iv) Diseases transmitted by vectors
  - (v) Food and water-borne diseases
  - (vi) Parasitic diseases
  - (vii) International health regulations
  - (viii) Personal hygiene of aviation personnel
- (13) Concluding items 2 hours
  - (i) Final examination
  - (ii) De-briefing and critique

#### **MED.D.025 Changes to the ME certificate**

MEs shall notify CAAM of the following changes which could affect their certificate:

- (a) the ME is subject to disciplinary proceedings or investigation by a medical regulatory body; and
- (b) there is a change of aero-medical ME's practice location.

#### **MED.D.030 Validity of ME certificates**

A ME certificate shall be valid for a period not exceeding 3 years. It may be renewed subject to the holder:

- (a) continuing to fulfill the general conditions required for medical practice and

- maintaining registration as a medical practitioner according to national law;
- (b) undertaking refresher training in aviation medicine within the last 3 years;
- (c) surveillance oversight by CAAM on the ME medical examination and medical certification program once in 3 years;
- (d) having performed at least 10 aero-medical examinations every year;
- (e) remaining in compliance with the terms of their certificate; and
- (f) exercising their privileges in accordance with these Directives.

#### **MED.D.031 ME requirements for continued surveillance and supervision**

The requirements for continued surveillance and supervision by CAAM on the ME is in accordance with Appendix B.

## **SECTION 2 – General Medical Practitioners (“GMP”)**

### **MED.D.040 Requirements for GMP**

No person shall act as a general medical practitioner unless he is a medical practitioner under Medical Act 1971 [*Act 50*].

**CIVIL AVIATION AUTHORITY OF MALAYSIA**  
**(PIHAK BERKUASA PENERBANGAN AWAM MALAYSIA)**



**APPLICATION FORM FOR APPOINTMENT / RE-APPOINTMENT  
AS A**

☐ **AVIATION MEDICAL EXAMINER**      ☐ **AVIATION OPHTHALMOLOGIST**

**FOR FLIGHT CREW AND ATCO LICENSING DECISIONS OF CAA MALAYSIA**

Full Name: (as in NRIC or Passport)			
Date of Birth (dd/mm/yy):		Nationality:	
Address of Medical (Practice)/ Consulting Rooms:			
Telephone:	Office:	Clinic:	Mobile:
Email:			Fax:
Postal Address (if different from above)			
University of medical school at which qualified, qualification obtained			
Higher qualifications (if any)			
Registered as Medical Practitioner in Malaysia - MMC No.			
Type of practice and/or registered specialty			
Qualifications and Experience in aviation medicine practice			
Membership/Affiliation(s) with aero/ space Medical Associations/ Organisations			
Experience in aviation (flying, gliding, parachuting, etc.) licence held (in the past or now)	FCL No:	Validity Date (dd/mm/yy):	
	Hours:		
	Rating:		
	Other Flight Crew Experience:		
Attendance of aero/space Medicine/ Scientific Meetings in the last three years	Date (dd/mm/yy)	Organisation/Location	



**CONDITIONS OF APPOINTMENT  
AS A  
MEDICAL EXAMINER**

1. Approval/Designation of Medical Examiner is for a period of up three (3) years (unless terminated earlier). Designation is renewable on reapplication to the CAAM.
2. Designation does not extend to the M.E.'s partner/s, assistants or locums unless the Assistant or locum is:-
  - 2.1 a designated M.E. and
  - 2.2 has obtained prior written permission from the CAAM.
3. The M.E. is required:
  - 3.1 to conduct himself/herself in a professional manner and in accordance with the Malaysian Medical Association's Code of Ethics (detail of which are available from the MMC/MMA web page [www.MMA.com.my](http://www.MMA.com.my));
  - 3.2 to be satisfied as to the identity of each applicant i.e. check NRIC and or Pilots License;
  - 3.3 to devote such time and skill to the examination of applicants as is necessary to elicit a careful Medical history and to conduct a full and thorough Clinical examination and also report on the required periodic investigation;
  - 3.4 at the conclusion of each medical examination the M.E. is to forward all relevant completed forms and reports, promptly (within 30 days) to Flight Crew Licensing Unit (FCLU) CAAM;
  - 3.5 if the holder of a medical certificate informs the M.E. about a medical ailment that may have is relevant to aviation safety, or on long term treatment (even if on supplements) the M.E. must inform FCLU CAAM of the condition and or medicines/chemicals being taken, within 5 working days;
  - 3.6 to be familiar with and follow the relevant standard, techniques and administrative procedures associated with medical examinations of Aviators/ATCOs detailed in the M.E. Handbook.
  - 3.7 to undertake continuing refresher/update training in Aviation Medicine & Clinical medicine acceptable to CAAM;
  - 3.8 to notify FCLU CAAM if absent from active practice for more than 4 weeks;
  - 3.9 to notify FCLU CAAM of any change of address, of contact details, or of cessation of practice;
  - 3.10 on cessation of practice/appointment as a M.E., to return the M.E. stamp and to destroy or return any unused examination forms to FCLU CAAM;
  - 3.11 to acknowledge FCLU CAAM's right to terminate a doctors' designation should the M.E. conduct himself/herself in a manner that is detrimental to the interests of CAAM or breach any of these Conditions of Appointment;
  - 3.12 to effect and maintain membership of Malaysian Medical Association or relevant professional Associations and/or other approved aviation medical/scientific organisation;
  - 3.13 to authorise FCLU CAAM to publish in the CAAM website the M.E.'s cessation of practice, resignation of appointment as a DAME or termination of appointment as a M.E. by FCLU CAAM;
  - 3.14 to authorise the regulatory authority of any ICAO Contracting State that designated or designates the M.E. to disclose to FCLU CAAM information about the M.E.'s performance and competence as a medical examiner;
  - 3.15 to authorise FCLU CAAM to disclose to the regulatory authority of another ICAO Contracting State that designates Medical Examiners for that State that has designated the M.E. or to which the M.E./DAO has applied to be designated, information about the M.E.'s performance as an Examiner; and
  - 3.16 to provide medical examination at the address and location for which he/she is designated as

approved by the CAAM.

4. Facilities required at a M.E.'s place of practice. To provide that following facilities and equipment:
- 4.1 a suitable consulting/clinical examination room, equipped with couch and general diagnostic equipment, including an accurate sphygmomanometer;
  - 4.2 simple urine testing facilities plus equipment/arrangements for Special Tests/Investigations as and when required or clinically indicated;
  - 4.3 Ishihara pseudo isochromatic chart (24 plate) for colour vision testing;
  - 4.4 visual acuity chart(s) for use at 6 meters;
  - 4.5 N series test types for near vision testing chart/cards;
  - 4.6 Ophthalmoscope;
  - 4.7 Auroscope
  - 4.8 height measuring scale (cm);
  - 4.9 weighing scale (kg);
  - 4.10 an electrocardiograph machine which complies with the acceptable Clinical Practice Standard, or a reliable local source for obtaining ECG's when required. (A specimen tracing on a normal subject from this machine may be required);
  - 4.11 audiometer and audiometric booth with currency of Calibration of both. If not in Clinic, such hearing test facilities/service should be readily available; and
  - 4.12 before long a suitable computer, document scanner, modem and software package for communicating electronically with FCLU CAAM (details will be notified from time to time).

**Declaration by Applicant**

I have read the Conditions of Appointment set out above and, if designated, I agree to accept these Conditions of Appointment.

Applicant's Signature: \_\_\_\_\_ Date (dd/mm/yy): \_\_\_\_\_

Name: \_\_\_\_\_ Mobile No: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_



## CIVIL AVIATION AUTHORITY OF MALAYSIA

### MEDICAL EXAMINER (ME) REQUIREMENTS FOR CONTINUED SURVEILLANCE AND SUPERVISION

#### General

1. The ME shall undertake the medical examinations and issue, defer or deny medical certificates as set out in the terms of Designated ME Approval Certificate.
2. The ME shall immediately inform the CAAM if the approval or certification criteria are no longer met.
3. The ME shall meet the registration, licensing and fitness to practise requirements of the Malaysia General Medical Council or relevant overseas national medical regulatory body.
4. The ME shall comply with the relevant regulations, law, policies and procedures, explanatory material and other guidance on civil aviation matters issued by the CAAM.
5. MEs shall remain up to date with the latest guidance material issued by the CAA. This includes guidance on procedures to keep up to date with the CAAM's policies and procedures and regular review of email (at least every 21 days).
6. The ME shall examine and assess applicants according to the requirements specified by the CAAM.
7. The ME shall consult with and if appropriate refer any Class 1 or 3 applicant who does not fully meet the requirements of the CAAM to the CAAM. For Class 2 applicants who do not fully meet the requirements the ME should consult with the CAAM.
8. All examination and investigation documents must be made available by the ME to the CAAM when requested by the CAAM for audit purposes. The reports of medical examinations and supporting information shall be submitted to the CAAM promptly, and no longer than 14 days following the undertaking of the medical examination.
9. The ME shall notify any change in an applicant's fitness status or assessment to the CAAM. A casework entry including the reason for change in fitness must be made using the CAAM database ASAP and MUST be within 3 working days of the change of status in fitness assessment.
10. The ME shall undertake regular aeromedical refresher training as determined by the CAAM. The ME must also maintain up-to-date knowledge of clinical and aeromedical practice and be able to demonstrate this to the CAAM if required.
11. The ME shall not change a decision made by the CAAM.

12. The ME shall respect confidentiality at all times and shall not divulge any information obtained from an individual in respect of an application for a medical certificate without the informed consent of the individual concerned.

13. The ME shall use, at all times, adequate facilities, procedures, documentation and functioning equipment suitable for aeromedical examinations. The CAAM may specify specific items of equipment that must be used for reasons of standardisation and quality control.

14. The ME shall demonstrate at all times and maintain a professional and safe standard of practice.

15. In the event of suspension or revocation of ME certification, the ME shall inform their responsible officer within 28 days and provide evidence of this notification to the CAAM.

### **Audit**

16. The ME shall permit auditors appointed by the CAAM to conduct visits to their practice premises, with or without reasonable notice.

17. The ME shall inform the CAAM if any ME Certificate held or issued by another National Aviation Authority, is suspended, revoked or restricted. The reasons for the change must also be immediately disclosed to the CAAM.

18. The ME shall immediately inform the CAAM if they are subject to a written complaint about their aeromedical practice, or disciplinary investigation or proceedings by a medical regulatory body.

19. The ME shall, at least 14 days prior to any change in practice address, postal address, email address or contact telephone number give written notification to the CAAM of such a change.

20. The ME shall have adequate professional indemnity insurance cover for their aeromedical practice.

21. The security of aeromedical documentation, certificate paper and certificates shall be ensured by the ME.

22. The ME shall not represent the CAAM or respond to media enquiries on behalf of the CAAM without the written consent of the CAAM.

23. Upon retirement as an ME or revocation of an ME approval, the ME shall return all ME and other stamps to the CAAM and destroy any unused examination forms and medical certificates.

24. Upon retirement as an ME or revocation of an ME approval, the ME shall immediately return all licensing medical records to the CAAM.

25. Upon the death of an ME, provision must be made to notify the CAAM within 1 week and liaise with the CAAM for the return of all licensing medical records to the CAAM.

26. Any contravention of these Conditions may result in investigation and enforcement action by the CAAM.

## **IT & Medical Records System**

27. Access to CAAM Medical database (the System) shall be limited to MEs and to named staff members within their medical practice. All named staff members must be notified to the CAAM and agreed by the CAAM. MEs must ensure that all staff are technically competent to carry out their tasks whilst using the System.

28. MEs and their named staff will be issued with Secure Logon Identifiers by the CAAM in order to access the System. Each person with a Secure Logon will be required to agree electronically with these Conditions. Passwords must not be divulged to any other person, and under no circumstances is it permitted to log on using another person's secure ID.

29. MEs will be responsible for all access to the System by their practice staff and for all actions on the System attributable to their, or their staff members', individual Secure ID Logon Identifiers. If any staff member with access to the System leaves their employ, the ME must immediately advise the CAAM.

30. MEs will take and will procure that their staff take all reasonable steps to ensure the security of connections to the System and take due care to control physical access to equipment that could be used to gain access to the CAAM network, systems and/or data.

31. System access will be provided solely across the Internet to the CAAM Authentication Servers. MEs must ensure that any connection used by their practice will not link the System to any other network such as to allow a 3rd party access to the system.


32. The CAAM will not be responsible for the provision, installation, operation and maintenance of all software, hardware and other equipment associated with the System at any ME site.

33. The title and all intellectual property rights in all information, data, programs, procedures embodied in the System remains with the CAAM at all times.

34. The CAAM provides access to the System for the sole purpose of allowing MEs and their named staff to retrieve medical records held electronically by the Authority for the purpose of undertaking periodic medicals and managing case reviews for the purpose of certificatory decision-making. Access to medical records other than those of pilots or ATCOs belonging to the ME's practice is prohibited. Transfers into practice of applicants' records are monitored by the CAAM and MEs should be able to demonstrate compliance with this paragraph.

### **Attachment:**

*Attachment 1 – CAAM surveillance and supervision audit checklist on Medical Examiner*

	<b>CIVIL AVIATION AUTHORITY OF MALAYSIA</b>			
<b>SURVEILLANCE &amp; SUPERVISION CHECKLIST ON MEDICAL EXAMINER (ME)</b>				
<input type="checkbox"/> INITIAL / <input type="checkbox"/> RENEWAL				
<b>A. ORGANISATION DETAILS</b>				
Full Name: (as in NRIC or Passport)				
NRIC No:	Passport No:			
ME Certificate No:	Expiry Date:			
Address of Medical (Practice)/Consulting Room:				
Telephone:	Clinic:	Mobile:		
Date Appointed as ME:		Inspection Date:		
<b>B. INSPECTION DETAILS</b>				
<b>*S – Satisfactory    U – Unsatisfactory</b>		S	U	FINDINGS/OBS
<b>1. ORGANIZATION</b>				
1.1 Management structure				
1.2 Medical degree/certificate				
1.3 CAAM Designated ME certificate				
1.4 Adequate staffing				
1.5 Partners / Assistant (if available)				
1.6 Locum practices (if available)				
1.7 Insurance coverage				
<b>2. CLINIC/OFFICE FACILITY – adequate, suitable</b>				
2.1 Business office				
2.2 Consulting / Clinical examination room				
2.3 Patient reception area / waiting room				
2.4 Toilets for male and female				
<b>3. CLINIC EQUIPMENT – adequate, functioning, suitable</b>				
3.1 Accurate sphygmomanometer				
3.2 General diagnostic equipment				
3.3 Urine testing equipment				
3.4 Ishihara pseudo isochromatic chart (24 plate) for				

colour vision testing			
3.5 Visual acuity chart(s) for use at 6 meters			
3.6 N series test type for near vision testing chart / cards			
3.7 Ophthalmoscope			
3.8 Auroscope			
3.9 Blood testing arrangement:			
a. Haemoglobin – type/brand of machine and calibration.			
b. Lipids – type/brand of machine and calibration.			
3.10 X-ray machine			
3.11 Height measurement equipment			
3.12 Weighing scale machine			
3.13 An electrocardiograph machine which complies with the acceptable Clinical Practice Standard, or a reliable local source for obtaining ECG's when required. (A specimen tracing on a normal subject from this machine may be required)			
3.14 Audiometer and audiometric booth with currency of Calibration of both. If not in Clinic, such hearing test facilities / service should be readily available			
3.15 Computer PC			
3.16 Document scanner			
3.17 Modem including wifi capability			
3.18 Software package for communicating with CAAM			
3.19 Access to other local specialist for referrals			
3.20 Provide any other information, e.g. other equipment / facilities available, other procedures in place, documentation and any policies			
<b>4. MANUALS AND DOCUMENTS</b>			
4.1 Civil Aviation Regulations 2016			
4.2 Chief Executive Officer Directive – Medical Requirement			
4.3 Joint Aviation Requirements Flight Crew License, JAR-FCL 3; or			

4.4 11 <sup>th</sup> Edition International Air Transport Association (IATA) Medical Manual; or			
4.5 FAA's Guide for Medical Examiners (2019); or			
4.6 CASA's Designated Aviation Medical Examiner Handbook.			
<b>5. RECORDS KEEPING</b>			
5.1 Patient medical records			
5.2 Safe keeping of medical records			
5.3 Hardcopy / electronic copy			
5.4 Accessibility of medical records			
<b>6. TRAINING PROGRAM / RECORD – 3 to 5-years interval</b>			
6.1 Aviation medicine refresher training			
6.2 Aviation medicine seminar or conference			
<b>RESULT</b>			
REMARKS			
Signature:			Date:
Flight Operations & Surveillance Inspector's Name:			



**ME APPLICATION PROCESS**

