COMMENT RESPONSE DOCUMENT (CRD) TO NOTICE OF PROPOSED AMENDMENT (NPA) 2008-17C

AND

TO NOTICE OF PROPOSED AMENDMENT (NPA) 2009-02e

for an Agency Opinion on a Commission Regulation establishing the Implementing Rules for the medical certification of pilots and medical fitness of cabin crew

and

a draft Decision of the Executive Director of the European Aviation Safety Agency on Acceptable Means of Compliance and Guidance Material on the medical certification of pilots and medical fitness of cabin crew

"Implementing Rules for Medical Fitness"

CRD b. 3 – AMC/GM to Part-MED

The changes as compared to the text proposed in the NPA are shown as follows:

- deleted text is shown with a strike through: ~~deleted~~
- new text is shown in bold: **bold**

II Draft Decision AMC and GM for Part-Medical

AMC/GM to PART-MEDICAL

SUBPART A
GENERAL REQUIREMENTS

Section 1
General

AMC to MED.A.015

Medical confidentiality

To ensure medical confidentiality, all medical reports and records should be securely held with accessibility restricted to ~~authorised~~ personnel **authorised by the medical assessor**.

AMC to MED.A.020

Medical certification

1. A **c**~~C~~lass 1 medical certificate includes the privileges **and validities** of **c**~~C~~lass 2 and L**A**PL medical certificates.

2. A **c**~~C~~lass 2 medical certificate includes the privileges **and validities** of a L**A**PL medical certificate.

AMC to MED.A.025

Decrease in medical fitness

If in any doubt about their fitness to fly, use of medication or treatment:

1. **h**olders of class 1 or class 2 medical certificates should seek the advice of an AeMC or AME;
2. **h**olders of L**A**PL medical certificates should seek the advice of an AeMC, AME**,** or **of the** GMP **who issued the holder's medical certificate**.

Section 2
Issuance, revalidation and renewal of medical certificates

AMC to MED.A.035

Application for a medical certificate

When applicants do not present a current or previous medical certificate to the AeMC, AME or GMP prior to the relevant examinations, the AeMC, AME or GMP should

not issue the medical certificate unless relevant information is received from the licensing authority.

~~**AMC to MED.A.040**~~

~~**Requirements for the issue, revalidation and renewal of medical certificates – Limitations to LPL medical certificates**~~

~~LPL medical certificates should be issued following examination in accordance with the following report:~~

Leisure Pilot's Licence Medical Report

1	**Pilot's Applicant's details**	
	Name:	Date of Birth:
		Identity No**Document**.:
	Address:	*(Country code)*
		(Number)
		Home Tel:
		Work Tel:
	E-mail:	Mobile Tel:
2	**Doctor's details**	
	Name:	
		Identity No**Document**.:
	Address:	*(Country code)*
		(Number)
		Home Tel:
		Work Tel:
	email:	Mobile Tel:

Instructions for completion of this report:

This report details the medical standard required for a pilot **licence holder** to hold a LPL medical certificate without limitations. It should be completed by the doctor, in the presence of the pilot**applicant**. This report requires some physical examination. However, it is mainly based on the **applicant**pilot's medical history. Therefore, the doctor completing this report should have good knowledge of the **applicant**pilot's medical history. In case the doctor does not have this knowledge, reasonable attempt should be made to verify the **applicant**pilot's past medical history. However, it is the **applicant**pilot's responsibility to give an accurate account of their medical history and on this basis, at the end of this report; the **applicant**pilot is required to sign a declaration of the truth of the medical history that they have given to the doctor.

This report consists of questions that have 'yes' or 'no' answers that are indicated by ticking boxes. If all ticks are in clear boxes the medical certificate can be issued immediately by the doctor undertaking this examination. If any of the ticks are in a shaded box the medical report should be referred to an AME or AeMC for further assessment.

The licence may need to be restricted. Examples of restrictions are the prohibition of passenger carriage, or in the case of a disabled pilot**licence holder**, a restriction to a demonstrated aircraft type with approved modifications.

Applicant's Declaration

I declare that the medical history that I have given is true to the best of my knowledge.

Provided medical confidentiality is respected at all times,

I hereby authorise:

- the release of all information contained in this report and any or all attachments to th medical assessor of the Licensing or Competent Authority recognising that these documents o electronically stored data are to be used for completion of a medical assessment or fo examiner oversight and will become and remain the property of the Licensing Authority;

- my medical examiner or the medical assessor of the Licensing Authority to request an medical records that may be needed for the assessment of my aeromedical fitness;

- the release of my medical records in response to such request.

Applicant

Signed…… Date……

3	**General** Does the **applicant**pilot:	**Y**	**N**
3.1	take a medication likely to cause drowsiness or interfere with operating a machine?		
3.2	drink more than 14 units of alcohol per week if a female, or more than 21 units of alcohol per week if a male (1 unit = 10 g of alcohol)?		
3.3	have a history of cancer with a significant liability to metastasise to the brain?		
3.4	have diabetes mellitus that is managed by insulin or other medication that can cause hypoglycaemia?		
3.5	have a history of diminished or absent awareness of hypoglycaemia?		
3.6	have a history of hypoglycaemia during waking hours in the last 12 months requiring assistance from a third party?		
3.7	have a history of taking an anti convulsant medication within the last 10 years?		
3.8	have a history of renal or hepatic failure?		
3.9	currently know that they have a renal stone?		
4	**Psychiatric illness** Does the **applicant**pilot have history of psychological or psychiatric illness?		

	Yes	If Yes, does the **applicant**pilo history of (refer to details below):	No	If No go to section 5	
				Y	N
4.1	significant psychiatric disorder within the past 6 months?				
4.2	a psychotic illness within the past 3 years, including psychotic depression?				
4.3	persistent alcohol misuse in the past 12 months?				
4.4	alcohol dependency in the past 3 years?				
4.5	persistent drug misuse in the past 12 months?				
4.6	drug dependency in the past 3 years?				
4.7	**does or did the applicant take any psychotropic medication?**				
5	**Vision** Does the **applicant**pilot:			Y	N
5.1	experience diplopia?				
5.2	have any other significant ophthalmic condition?				
6	**Nervous System** Does the pilot have a history of - Does the **applicant**pilot have a history of **problems with the nervous system**?			Y	N

Yes	If Yes, does the **applicant**pilot have a history of (refer to further details below):	No	If No go to section 7	
			Y	N
6.1	an epileptic fit after the age of 5 years?			
6.2	blackout or impaired consciousness within the last 5 years other than simple faint and cough syncope with low risk of recurrence?			
6.3	narcolepsy?			
6.4	stroke or transient ischaemic attack?			
6.5	sudden and disabling dizziness/vertigo within the last 1 year with a liability to recur?			
6.6	subarachnoid haemorrhage?			
6.7	serious head injury within the last 18 months?			
6.8	brain tumour, either benign or malignant, primary or secondary?			
6.9	other brain surgery?			
6.10	chronic neurological disorders with significant symptoms, e.g. Parkinson's disease, Multiple Sclerosis?			
6.11	dementia or cognitive impairment?			
6.12	**severe peripheral neuropathy?**			

~~**7**~~	~~**Otorhynolaryngology**~~ ~~**Does the applicant have a history of ENT disease?**~~		
	~~**YES If Yes refer to further details below NO If No go to section**~~		
		~~**Y**~~	~~**N**~~
~~**7.1**~~	~~**Impaired hearing or hearing loss?**~~		
~~**7.2**~~	~~**Eustachian tube dysfunction?**~~		
~~**7.3**~~	~~**Diseases of the middle ear?**~~		
~~**7.4**~~	~~**Middle ear surgery?**~~		
~~**7.5**~~	~~**Diseases of the inner ear?**~~		
~~**7.6**~~	~~**Vestibular dysfunction?**~~		
~~**7.7**~~	~~**Diseases of head, neck, face or scalp?**~~		
~~**7.8**~~	~~**Diseases of the upper airway or oral cavity?**~~		
~~**7.9**~~	~~**Sinus dysfunction?**~~		
~~**8**~~	~~**Coronary Artery Disease**~~ ~~**Does the applicant have a history of Coronary Artery Disease?**~~		
	~~Yes~~ ~~If Yes refer to further details below~~ ~~No~~ ~~If No go to section 9~~		
		~~**Y**~~	~~**N**~~
~~8.1~~	~~Has the **applicant**pilot **suffered** had an acute coronary syndrome (ACS) including myocardial infarction (heart attack) within the last six weeks?~~		
~~8.1.1~~	~~Has the **applicant**pilot **suffered** had an ACS more than six weeks ago and since the ACS they have **undergone**had a satisfactory cardiological evaluation including a normal exercise tolerance test?~~		
~~8.2~~	~~Has the **applicant** pilot **suffered** had angina within the last six weeks?~~		
~~8.2.1~~	~~Has the **applicant** pilot **suffered** had angina more than six weeks ago and since this time they have had a satisfactory cardiological evaluation including a normal exercise tolerance test?~~		
~~8.3~~	~~Has the **applicant** pilot **undergone** had angioplasty and/or stenting within the last six weeks?~~		
~~8.3.1~~	~~Has the **applicant** pilot **undergone** had angioplasty and/or stenting more than six weeks ago and since the procedure they have been free from angina and have had a satisfactory cardiological evaluation including a normal exercise tolerance test?~~		
~~8.4~~	~~Has the **applicant** pilot **undergone** had coronary artery bypass grafting within the last three months?~~		
~~8.4.1~~	~~Has the **applicant** pilot **undergone** had coronary artery bypass grafting more than 3 months ago and an exercise tolerance test conducted 3 months post operatively was normal and also a post operative cardiological evaluation was satisfactory?~~		

8.5	Is the **applicant** pilot known to have a left ventricular ejection fraction of less than 0.4?		
9	**Cardiac Arrhythmia**	**Y**	**N**
	Is the applicant's heart rhythm significantly abnormal?		
	Yes If Yes refer to further question below No If No go to section 10		
		N	**Y**
9.1	**Has the applicant had a satisfactory cardiological evaluation?** Is the p rhythm abnormal?		
10	**Peripheral Arterial Disease**	**Y**	**N**
10.1	Is the **applicant** pilot known to have a thoracic or abdominal aortic aneurysm of transverse diameter of greater than 5 cm?		
10.2	Does the **applicant** pilot have a history of aortic dissection?		
10.3	**Does the applicant have had symptomatic or asymptomatic cerebral or peripheral artery obstructive disease without satisfactory treatment and follow-up result?**		
11	**Valvular/Congenital Heart Disease** Does the **applicant** pilot have a history of valvular or heart disease?		
	Yes If Yes refer to further details below No If No go to section 12		
		Y	**N**
11.1	Does the **applicant** pilot have a history of congenital heart disease?		
11.2	Does the **applicant** pilot have a history of heart valve disease?		
11.3	Does the **applicant** pilot have a history of evidence of systemic embolism?		
11.4	Does the **applicant** pilot currently have significant symptoms due to valvular/congenital heart disease or is the **applicant** pilot likely to develop such symptoms?		
11.5	Has there been any progression of valvular/congenital heart disease since the last medical report? (if relevant)		
11.6	**Is there any systemic anticoagulant therapy?**		
12	**Cardiomyopathy**	**Y**	**N**
12.1	Does the **applicant** pilot have a history of heart failure?		
12.2	Does the **applicant** pilot have a history of established cardiomyopathy?		
12.3	Does the **applicant** pilot have a history of a heart or heart/lung transplant?		
13	**Cardiac Investigations** Has the **applicant** pilot had an abnormal resting electrocardiogram?		

	Yes If Yes refer to further details below No If No go to section 14		
		Y	**N**
13.1	an abnormal resting electrocardiogram not including **other than**: •right bundle branch block evaluated by a physician as not significant •left bundle branch block subsequently evaluated with a satisfactory cardiological evaluation including an exercise tolerance test. •suspected myocardial infarction subsequently evaluated with a satisfactory cardiological evaluation including an exercise tolerance test. •pre-excitation without an associated arrhythmia or likelihood of developing an arrhythmia. •voltage criteria for left ventricular hypertrophy without clinical or echocardiographic evidence of left ventricular hypertrophy. •rightward axis **deviation** evaluated by a physician as not significant. •leftward axis **deviation** evaluated by a physician as not significant.		
14	**Respiratory**	**Y**	**N**
14.1	Does the **applicant** pilot have a liability to a medical condition that puts them increased risk of developing a pneumothorax?		
14.2	Has the **applicant** pilot had hospital treatment in the last year for breathing problems?		
15	**Do you feel thatIn your opinion has the applicant pilot has an condition that has not been addressed in the questions above?**	**Y**	**N**
16	**Examination Part A** **The doctor will need to examine the applicant pilot to answer these q**	**Y**	**N**
16.1	Can the **applicant** pilot see 6/12 in each eye and 6/9 binocularly (corrective lenses may be worn)?		
16.2	Does the **applicant** pilot have a defect in their visual field that can be demonstrated on confrontation testing?		
16.3	Is the **applicant**pilot's urine positive for glucose?		
16.4	Is the systolic blood pressure consistently 160 mmHg or more?		
16.5	Is the diastolic blood pressure consistently 95 mmHg or more?		

17	**Examination Part B** **The doctor will only need to examine the applicant pilot if uncertain of the answer.**	**Y**	**N**
17.1	Does the **applicant** pilot have a BMI of greater than 35?		
17.2	In a quiet room, can the **applicant** pilot hear a whispered voice?		
17.3	Can the **applicant** pilot climb two flights of stairs at a normal pace without stopping?		
17.4	When seated, is the **applicant** pilot able to quickly and securely pick up, with each hand tested separately, a pencil that has been dropped on the floor?		
17.5	Can the **applicant** pilot touch the top of their head with each hand tested separately?		
17.6	The upper limb strength and range of movement required to fly an aircraft is similar to that required to row a boat. Does the **applicant** pilot have the strength and range of movement in their upper limbs in order to perform this movement normally?		
17.7	**Applicants** Pilots require normal pronation-supination in both forearms. This is the movement used to screw a corkscrew into and out of a cork. Does the **applicant** pilot have the strength and range of movement for pronation-supination of both forearms to perform this movement normally?		
17.8	The lower limb strength and range of movement required to fly an aircraft is similar to that required in riding a bicycle. Is there the strength and range of movement in the **applicant**pilot's hips, knees and ankles to enable the **applicant** pilot to perform this movement normally?		

For all questions that have been answered with a tick in a shaded box, please note the question number and give further detail below:

If the pilot has previously undergone examination for a pilots licence, state when, where and with what result.

Has the pilot ever had a medical certificate denied suspended or revoked? If so, give details bellow.

No.	**Comment/detail**

If the **applicant** pilot has previously undergone examination for a pilots licence, state when, where and with what result.

Has the **applicant** pilot ever had a medical certificate denied, suspended or revoked?

If so, give details below.

Pilot's Declaration

I declare that the medical history that I have given is true to the best of my knowledge.

I consent to release this medical information to the national licensing authority

Pilot

Signed..... Date.....

Doctor's declarat

Complete the boxes as indicated:

Certificate issued **Application referred**

I declare that I have examined the **applicant** pilot to the standards established by Regulation XXXXX and following the acceptable means of compliance adopted by the European Aviation Safety Agency.

Signed..... Date.....

If all the questions have been answered with ticks in a clear box and the **applicant** pilot and doctor have signed this report, the medical certificate can now be issued.

If any question has been answered with a tick in a shaded box, this medical report has to be sent to an AME or AeMC for further evaluation.

AMC to MED.A.045

Limitations to class 1, class 2 and LAPL medical certificates

1. ~~(a)~~ An AeMC or AME may refer the decision on fitness of the applicant to the licensing authority in borderline cases or where fitness is in doubt.

2. ~~(b)~~ In cases where a fit assessment can only be considered with a limitation, the AeMC, AME or the licensing authority should evaluate the medical condition of the applicant in consultation with flight operations and other experts**,** if necessary.

3. ~~(c)~~ Limitation codes

	Code	Limitation
3.1	**TML**	**restriction of the period of validity of the medical certificate**
3.2	**VDL**	**correction for defective distant vision**
3.3	**VML**	**correction for defective distant, intermediate and near vision**
3.4	**VNL**	**correction for defective near vision**
3.5	**CCL**	**correction by means of contact lenses only**
3.6	**VCL**	**valid by day only**
3.7	**HAL**	**valid only when hearing aids are worn**
3.8	**APL**	**valid only with approved prosthesis**
3.9	**OCL**	**valid only as co-pilot**
3.10	**OPL**	**valid only without passengers (PPL and LAPL only)**
3.11	**SSL**	**restricted to specified type of aircraft**
3.12	**OAL**	**restricted to demonstrated aircraft type**
3.13	**AHL**	**valid only with approved hand controls**
3.14	**SIC**	**specific regular medical examination(s) – contact licensing authority**
3.15	**RXO**	**specialist ophthalmological examinations**

4. Entry of limitations

4.1 Limitations mentioned in 3.1 through 3.4 may be imposed by an AME or an AeMC;

4.2 Limitations mentioned in 3.5 through 3.15 should only be imposed:

4.2.1 for class 1 medical certificates by the licensing authority;

4.2.2 for class 2 medical certificates by the AME or AeMC by, or in consultation with, the licensing authority;

4.2.3 for LAPL medical certificates by the AME or AeMC.

5. Removal of limitations

5.1 For class 1 medical certificates, all limitations should only be removed by the licensing authority.

5.2 For class 2 medical certificates, limitations may be removed by the licensing authority or by an AeMC or AME in consultation with the licensing authority.

5.3 For LAPL medical certificates by the AeMC or AME.

AMC to MED.A.050

Obligations of AeMC, AME and GMP – report to the licensing authority

1. The report required in MED.A.050 (b)(4) should detail the results of the examination and the evaluation of the findings with regard to medical fitness.

~~2. In the case of LPL medical certificates, the report should be in the form indicated in AMC to MED.A.040~~

~~3~~**2**. The report may be submitted in electronic format, but adequate identification of the examiner should be ensured.

~~4~~**3**. If the medical examination is carried out by two or more AMEs or GMPs, only one of them should be responsible for coordinating the results of the examination, evaluating the findings with regard to medical fitness, and signing the report.

AMC to MED.A.055

Validity, revalidation and renewal of medical certificates – validity period

The validity period of a medical certificate (including any associated examination or special investigation) is determined by the age **of the applicant** at ~~which~~ the **date of the** medical examination ~~of the applicant takes place~~.

AMC to MED.A.060

Suspension of exercise of privileges

Holders of a medical certificate should seek the advice of an AeMC or AME when they have been suffering from any illness involving incapacity to function as a member of the flight crew for a period of at least 21 days.

Subpart B

REQUIREMENTS FOR MEDICAL CERTIFICATES

Specific requirements for class 1 and class 2 medical certificates

AMC for class 1 medical certificates

AMC ~~A~~ 1 to MED.B.005

CARDIOVASCULAR SYSTEM – Class 1 medical certificates

(a) EXAMINATION

Exercise electrocardiography

An exercise ECG when required as part of a cardiovascular assessment should be symptom limited and completed to a minimum of Bruce Stage IV or equivalent.

(b) GENERAL

1. *Cardiovascular Risk Factor Assessment*

   1.1. Serum lipid estimation is case finding and significant abnormalities should require review, investigation and supervision by the AeMC or AME in conjunction with the licensing authority.

   1.2. An accumulation of risk factors (smoking, family history, lipid abnormalities, hypertension, etc.) should require cardiovascular evaluation by the AeMC or AME in ~~conjunction~~ **consultation** with the licensing authority.

2. *Cardiovascular Assessment*

   2.1. Reporting of resting and exercise electrocardiograms should be by the AME or ~~other~~ **an accredited** specialist.

   2.2. The extended cardiovascular assessment should be undertaken at an AeMC or may be delegated to a cardiologist.

3. *Peripheral Arterial Disease*

   ~~Provided~~ **If** there is no significant functional impairment, a fit assessment may be considered by the licensing authority**,** provided:

   (i) applicants without symptoms of coronary artery disease have reduced any vascular risk factors to an appropriate level;

   (ii) all applicants should be on acceptable secondary prevention treatment;

   (iii) exercise electrocardiography should be satisfactory. Further tests may be required which should show no evidence of myocardial ischaemia or significant coronary artery stenosis.

4. *Aortic Aneurysm*

   4.1. Applicants with an aneurysm of the infra-renal abdominal aorta may be assessed as fit ~~for Class 1~~ with a multi-pilot ~~()~~ limitation by the licensing authority. Follow-up by

ultra-sound scans **or other imaging techniques**, as necessary, should be determined by the licensing authority**.**

4.2. Applicants may be assessed as fit by the licensing authority after surgery for an infra-renal aortic aneurysm with a multi-pilot limitation at revalidation if the blood pressure~~, exercise electrocardiographic response~~ and cardiovascular assessment are satisfactory. Regular cardiological review should be required.

5. *Cardiac Valvular Abnormalities*

5.1. Applicants with previously unrecognised cardiac murmurs should require evaluation by a cardiologist and assessment by the licensing authority. If considered significant, further investigation should include at least 2D Doppler echocardiography **or equivalent imaging**.

5.2. Applicants with minor cardiac valvular abnormalities may be assessed as fit by the licensing authority. Applicants with significant abnormality of any of the heart valves should be assessed as unfit.

5.2.1. Aortic Valve Disease

(i) Applicants with bicuspid aortic valve may be assessed as fit if no other cardiac or aortic abnormality is demonstrated. Follow-up with echocardiography, as necessary, should be determined by the licensing authority.

(ii) Applicants with aortic stenosis require licensing authority review. Left ventricular function should be intact. A history of systemic embolism or significant dilatation of the thoracic aorta is disqualifying. Those with a mean pressure gradient of up to 20 mm Hg may be assessed as fit. Those with mean pressure gradient above 20 mm Hg but no greater than 40 mm Hg may be assessed as fit with a multi-pilot limitation. A mean pressure gradient up to 50 mm Hg may be acceptable. Follow-up with 2D Doppler echocardiography, as necessary, should be determined by the licensing authority. **Alternative measurement techniques with equivalent ranges may be used.**

(iii) Applicants with trivial aortic regurgitation may be assessed as fit. A greater degree of aortic regurgitation should require a multi-pilot limitation. There should be no demonstrable abnormality of the ascending aorta on 2D Doppler echocardiography. Follow-up, as necessary, should be determined by the licensing authority.

5.2.2. Mitral Valve Disease

(i) Asymptomatic applicants with an isolated mid-systolic click due to mitral leaflet prolapse may be assessed as fit.

(ii) Applicants with rheumatic mitral stenosis should normally be assessed as unfit.

(iii) Applicants with uncomplicated minor regurgitation may be assessed as fit. Periodic cardiolological review should be determined by the licensing authority.

(iv) Applicants with uncomplicated moderate mitral regurgitation may be considered as fit with a multi-pilot limitation if the 2D Doppler echocardiogram demonstrates satisfactory left ventricular dimensions and satisfactory myocardial function is confirmed by exercise electrocardiography. Periodic cardiological review should be required, as determined by the licensing authority.

(v) Applicants with evidence of volume overloading of the left ventricle demonstrated by increased left ventricular end-diastolic diameter **or evidence of systolic impairment** should be assessed as unfit.

6. *Valvular surgery*

Applicants with cardiac valve replacement/repair should be assessed as unfit. A fit assessment may be considered by the licensing authority.

6.1. Aortic valvotomy should be disqualifying.

6.2. Mitral leaflet repair for prolapse is compatible with a fit assessment**,** provided post-operative investigations **reveal** ~~are~~ satisfactory **left ventricular function without systolic or diastolic dilation and no more than minor mitral regurgitation**.

6.3. Asymptomatic applicants with a tissue valve **or with a mechanical valve** who, at least 6 months following surgery, are taking no cardioactive medication may be considered for a fit assessment with a multi-pilot limitation by the licensing authority. Investigations which demonstrate normal valvular and ventricular configuration and function should have been completed as demonstrated by:

(i) a satisfactory symptom limited exercise ECG. ~~Myocardial scintigraphy~~**MMyocardial perfusion imaging**/stress echocardiography should be required if the exercise ECG is abnormal or any coronary artery disease has been demonstrated**;**~~.~~

(ii) a 2D Doppler echocardiogram showing no significant selective chamber enlargement, a tissue valve with minimal structural alteration and a normal Doppler blood flow, and no structural or functional abnormality of the other heart valves. Left ventricular fractional shortening should be normal.

Follow-up with exercise ECG and 2D echocardiography, as necessary, should be determined by the licensing authority.

6.4. Where anticoagulation is needed after valvular surgery, a fit assessment with a multi-pilot limitation may be considered after review by the licensing authority. The review should show that the anticoagulation is stable. Anticoagulation should be considered stable if, within the last 6 months, at least 5 INR values are documented, of which at least 4 are within the INR target range.

7. *Thromboembolic Disorders*

Arterial or venous thrombosis or pulmonary embolism ~~is~~ **are** disqualifying ~~until~~ **whilst** anticoagulation ~~has been discontinued~~**is being used as treatment**. **After 6 months of stable anticoagulation as prophylaxis, a fit assessment with multi-pilot limitation may be considered after review by the licensing authority. Anticoagulation should be considered stable if, within the last 6 months, at least 5 INR values are documented, of which at least 4 are within the INR target range.** Pulmonary embolus should require full evaluation. Following cessation of anti-coagulant therapy, for any indication, applicants should require review by the licensing authority.

8. *Other Cardiac Disorders*

8.1. Applicants with a primary or secondary abnormality of the pericardium, myocardium or endocardium should be assessed as unfit. A fit assessment may be considered by the licensing authority following complete resolution and satisfactory cardiological evaluation which may include 2D Doppler echocardiography, exercise ECG and/or ~~myocardial scintigraphy~~**mM****yocardial perfusion imaging**/stress echocardiography and 24-hour ambulatory ECG. Coronary angiography may be indicated. Frequent review and a multi-pilot limitation may be required after fit assessment.

8.2. Applicants with a congenital abnormality of the heart, including those who have undergone surgical correction, should be assessed as unfit. Applicants with minor abnormalities that are functionally unimportant may be assessed as fit by the licensing authority following cardiological assessment. No cardioactive medication is acceptable. Investigations may include 2D Doppler echocardiography, exercise ECG and 24-hour ambulatory ECG. Regular cardiological review should be required.

9. ~~*Recurrent Vasovagal* Syncope~~

9.1. Applicants with a history of recurrent vasovagal syncope should be assessed as unfit. A fit assessment may be considered by the licensing authority after a 6 month period without recurrence provided cardiological evaluation is satisfactory. Such evaluation should include:

(i) a satisfactory symptom limited 12 lead exercise ECG to Bruce Stage IV or equivalent. If the exercise ECG is abnormal, myocardial ~~scintigraphy~~ **perfusion imaging**/stress echocardiography should be required;

(ii) a 2D Doppler echocardiogram showing n**either**~~o~~ significant selective chamber enlargement nor structural or functional abnormality of the heart, valves or myocardium;

(iii) a 24-hour ambulatory ECG recording showing no conduction disturbance, complex or sustained rhythm disturbance or evidence of myocardial ischaemia.

9.2. A tilt test carried out to a standard protocol showing no evidence of vasomotor instability may be required.

9.3. Neurological review should be required.

9.4. A multi-pilot limitation should be required until a period of 5 years has elapsed without recurrence. The licensing authority may determine a shorter or longer period of multi-pilot limitation according to the individual circumstances of the case.

9.5. Applicants who experienced loss of consciousness without significant warning should be assessed as unfit.

(c) BLOOD PRESSURE

1. The diagnosis of hypertension should require **cardiovascular** review ~~of other~~**to include** potential vascular risk factors.

2. Anti-hypertensive treatment should be agreed by the licensing authority. Medication acceptable to the licensing authority may include:

(i) non-loop diuretic agents;

(ii) ACE Inhibitors;

(iii) angiotensin II **AT1** blocking agents (sartans);

(iv) slow channel calcium blocking agents;

(v) certain (generally hydrophilic) beta-blocking agents.

3. Following initiation of medication for the control of blood pressure, applicants should be reassessed to verify that the treatment is compatible with the safe exercise of the privileges of the licence held.

(d) CORONARY ARTERY DISEASE

1. Chest pain of uncertain cause should require full investigation.

2. In suspected asymptomatic coronary artery disease, exercise electrocardiography should be required. Further tests may be required**,** which should show no evidence of myocardial ischaemia or significant coronary artery stenosis.

3. Evidence of exercise induced myocardial ischaemia should be disqualifying.

4. After an ischaemic cardiac event, including revascularisation, applicants without symptoms should have reduced any vascular risk factors to an appropriate level. Medication, when used to control cardiac symptoms, is not acceptable. All applicants should be on acceptable secondary prevention treatment.

   4.1. A coronary angiogram obtained around the time of, or during, the ischaemic cardiac event and a complete, detailed clinical report of the ischaemic event, the angiogram and any operative procedures should be available to the licensing authority:

      (i) there should be no stenosis more than 50% in any major untreated vessel, in any vein or artery graft or at the site of an angioplasty/stent, except in a vessel **subtending a myocardial infarction.** ~~leading to an infarct~~. More than two stenoses between 30% and 50% within the vascular tree should not be acceptable~~.~~**;**

      (ii) the whole coronary vascular tree should be assessed as satisfactory by a cardiologist, and particular attention should be paid to multiple stenoses and/or multiple revascularisations**;**~~.~~

      (iii) an untreated stenosis greater than 30% in the left main or proximal left anterior descending coronary artery should not be acceptable.

   4.2. At least 6 months from the ischaemic cardiac event, including revascularisation, the following investigations should be completed (equivalent tests may be substituted):

      (i) an exercise ECG showing no evidence of myocardial ischaemia ~~n~~or rhythm **or conduction** disturbance;

      (ii) an echocardiogram showing satisfactory left ventricular function with no important abnormality of wall motion (such as dyskinesia or akinesia) and a left ventricular ejection fraction of 50% or more;

      (iii) in cases of angioplasty/stenting, a myocardial perfusion scan or stress echocardiogram**,** which should show no evidence of reversible myocardial ischaemia. If there is any doubt about myocardial perfusion**,** in other cases (infarction or bypass grafting) a perfusion scan should also be required;

      (iv) further investigations, such as a 24 hour ECG, may be necessary to assess the risk of any significant rhythm disturbance.

   4.3. Follow-up should be yearly (or more frequently**,** if necessary) to ensure that there is no deterioration of cardiovascular status. It should include a review by a cardiologist, exercise ECG and cardiovascular risk assessment. Additional investigations may be required by the licensing authority.

   4.4. After coronary artery vein bypass grafting, a myocardial perfusion scan or equivalent test should be performed if there is any indication, and in all cases within 5 years from the procedure.

   4.5. In all cases**,** coronary angiography shall be considered at any time if symptoms, signs or non-invasive tests indicate ~~cardiac~~ **myocardial** ischaemia.

   4.6. Successful completion of the six month or subsequent review will allow a fit assessment with a multi-pilot limitation.

(e) RHYTHM AND CONDUCTION DISTURBANCES

1. Any significant rhythm or conduction disturbance should require evaluation by a cardiologist and appropriate follow-up in the case of a fit assessment. Such evaluation should include:

   (i) exercise ECG to the Bruce protocol or equivalent. Bruce stage 4 should be achieved and no significant abnormality of rhythm or conduction, or evidence of myocardial ischaemia should be demonstrated. Withdrawal of cardioactive medication prior to

the test should ~~be considered~~ **normally be required**.

(ii) 24-hour ambulatory ECG which should demonstrate no significant rhythm or conduction disturbance**;** ~~,~~

(iii) 2D Doppler echocardiogram which should show no significant selective chamber enlargement or significant structural or functional abnormality, and a left ventricular ejection fraction of at least 50%**.** ~~.~~

Further evaluation may include (equivalent tests may be substituted):

(iv) ~~Repeated~~ 24-hour ECG recording **repeated as necessary**;

(v) electrophysiological study;

(vi) myocardial perfusion ~~scanning~~**imaging**;

(vii) cardiac **magnetic resonance imaging (**MRI**)**;

(viii) coronary angiogram.

2. Applicants with frequent or complex forms of supra ventricular or ventricular ectopic complexes require full cardiological evaluation.

3. *Ablation*

Applicants who have ~~received~~ **undergone** ablation therapy should be assessed as unfit. A fit assessment may be considered by the licensing authority following successful catheter ablation and should require a multi-pilot limitation for at least one year, unless an electrophysiological study, undertaken at a minimum of two months after the ablation, demonstrates satisfactory results. For those in whom the long term outcome cannot be assured by invasive or non-invasive testing, an additional period with a multi-pilot limitation and/or observation may be necessary.

4. *Supraventricular Arrhythmias*

4.1. Applicants with significant disturbance of supraventricular rhythm, including sinoatrial dysfunction, whether intermittent or established, should be assessed as unfit. A fit assessment may be considered by the licensing authority if cardiological evaluation is satisfactory.

4.2. Atrial fibrillation/flutter

(i) For initial applicants**,** a fit assessment should be limited to those with a single episode of arrhythmia which is considered by the licensing authority to be unlikely to recur.

(ii) For revalidation, applicants may be as**s**essed as fit if cardiological evaluation is satisfactory.

4.3. Applicants with asymptomatic sinus pauses up to 2.5 seconds on resting electrocardiography may be assessed as fit if exercise electrocardiography, echocardiography and 24 hour ambulatory ECG are satisfactory.

4.4. Symptomatic sino-atrial disease should be disqualifying.

5. ~~*Heart Block*~~***Mobitz type 2 atrio-ventricular block***

Applicants with Mobitz type 2 AV block should require full cardiological evaluation and may be assessed as fit in the absence of distal conducting tissue disease.

6. *Complete right bundle branch block*

Applicants with complete right bundle branch block should require cardiological evaluation on first presentation and subsequently:

(i) for initial applicants under 40 years of age**,** a fit assessment may be considered by the licensing authority. Initial applicants over 40 years should demonstrate a period of stability of ~~approximately~~ 12 months;

(ii) for revalidation**,** a fit assessment may be considered if the applicant is under 40 years. A multi-pilot limitation should be applied for 12 months for those over 40 years of age.

7. *Complete left bundle branch block*

A fit assessment may be considered by the licensing authority.

(i) Initial applicants should demonstrate a 3**-**-year period of stability.

(ii) For revalidation, after a 3**-**year period with a multi-pilot limitation applied, a fit assessment without multi-pilot limitation may be considered.

(iii) Investigation of the coronary arteries is necessary for applicants over age 40.

8. *Ventricular pre-excitation*

A fit assessment may be considered by the licensing authority.

(i) Asymptomatic initial applicants with pre-excitation may be assessed as fit by the licensing authority if an electrophysiological study, including adequate drug-induced autonomic stimulation reveals no inducible re-entry tachycardia and the existence of multiple pathways is excluded.

(ii) Asymptomatic applicants with pre-excitation may be assessed as fit by the licensing authority at revalidation with a multi-pilot limitation.

9. *Pacemaker*

9.1. Applicants with a subendocardial pacemaker should be assessed as unfit. A fit assessment may be considered at revalidation by the licensing authority no sooner than three months after insertion and should require:

(i) no other disqualifying condition;

(ii) a bipolar lead system**, programmed in bipolar mode without automatic mode change of the device**;

(iii) that the applicant is not pacemaker dependent;

(iv) regular follow-up**,** including a pacemaker check; and

(v) a multi-pilot limitation.

~~9.2. Applicants with an anti-tachycardia pacemaker should be assessed as unfit.~~

10. *QT Prolongation*

Prolongation of the QT interval on the ECG associated with symptoms should be disqualifying. Asymptomatic applicants require cardiological evaluation for a fit assessment **and a multi-pilot limitation may be required**.

~~**11. Implantable Cardioverter Defibrillators**~~

~~**Applicants with an automatic implantable defibrillating system should be assessed as unfit**~~**AMC ~~A~~1 to MED.B.010**

RESPIRATORY SYSTEM – class 1 medical certificates

1. Examinations

1.1 Spirometry

Spirometric examination is required for initial examination. A**n** ~~low~~ FEV_1/FVC ratio **less than 70%** at initial examination should require evaluation by a specialist in respiratory disease.

1.2 *Chest radiography*

Posterior/anterior chest radiography may be required at initial, revalidation or renewal examinations when indicated on clinical or epidemiological grounds.

2. *Chronic obstructive airways disease*

Applicants with chronic obstructive airways disease should be assessed as unfit. Applicants with only minor impairment of their pulmonary function may be assessed as fit.

3. *Asthma*

~~For a~~**A**pplicants with asthma requiring medication or experiencing recurrent attacks of asthma, ~~a fit assessment~~ may be ~~considered~~ **assessed as fit** if the asthma is considered stable with satisfactory pulmonary function tests and medication is compatible with flight safety (systemic steroids are disqualifying).

4. *Inflammatory disease*

For applicants with active inflammatory disease of the respiratory system**,** a fit assessment may be considered when the condition has resolved without sequelae and no medication is required.

5. *Sarcoidosis*

5.1. Applicants with active sarcoidosis should be assessed as unfit. Investigation should be undertaken with respect to the possibility of systemic**, particularly cardiac,** involvement. A fit assessment may be considered if no medication is required, and the disease is investigated and shown to be limited to hilar lymphadenopathy and inactive.

5.2. Applicants with cardiac sarcoid should be assessed as unfit.

6. *Pneumothorax*

6.1. Applicants with a spontaneous pneumothorax should be assessed as unfit. A fit assessment may be considered if respiratory evaluation is satisfactory:

(i) one year following full recovery from a single spontaneous pneumothorax;

(ii) at revalidation, six weeks following full recovery from a single spontaneous pneumothorax, with a multi-pilot limitation;

(iii) following surgical intervention in the case of a recurrent pneumothorax provided there is satisfactory recovery.

6.2. A recurrent spontaneous pneumothorax that has not been surgically treated is disqualifying.

6.3. A fit assessment following full recovery from a traumatic pneumothorax as a result of an accident or injury may be acceptable once full absorption of the pneumothorax is demonstrated.

7. *Thoracic surgery*

7.1. Applicants requiring major thoracic surgery should be assessed as unfit for a minimum of three months following operation or until such time as the effects of the operation are no longer likely to interfere with the safe exercise of the privileges of the applicable licence(s).

7.2. A fit assessment following lesser chest surgery may be considered by the ~~AMS~~ **licensing authority** after satisfactory recovery and full respiratory evaluation.

8 *Sleep apnoea syndrome*

Applicants with unsatisfactorily treated sleep apnoea syndrome should be assessed as

unfit.

AMC ~~A~~ 1 to MED.B.015

DIGESTIVE SYSTEM – class 1 medical certificates

1. *Oesophageal varices*

   Applicants with oesophageal varices should be assessed as unfit.

2. *Pancreatitis*

   Applicants with pancreatitis should be assessed as unfit pending assessment. A fit assessment may be considered if the cause (e.g. gallstone, other obstruction, medication) is removed.

3. *Gallstones*

   3.1. Applicants with a single asymptomatic large gallstone discovered incidentally may be assessed as fit if not likely to cause incapacitation in flight.

   3.2. An applicant with asymptomatic multiple gallstones may be assessed as fit with a multi-pilot limitation.

4. *Inflammatory bowel disease*

   Applicants with an established diagnosis or history of chronic inflammatory bowel disease should be assessed as fit if the inflammatory bowel disease is in established remission and stable and that systemic steroids are not required for its control.

5. *Peptic ulceration*

   Applicants with peptic ulceration should be assessed as unfit pending full recovery and demonstrated healing.

6. *Abdominal surgery*

   6.1. Abdominal surgery is disqualifying for a minimum of three months. An earlier fit assessment may be considered if recovery is complete, the applicant is asymptomatic and there is only a minimal risk of secondary complication or recurrence.

   6.2. Applicants who have undergone a surgical operation on the digestive tract or its adnexa, involving a total or partial excision or a diversion of any of these organs, should be assessed as unfit for a minimum period of three months or until such time as the effects of the operation are no longer likely to interfere with the safe exercise of the privileges of the applicable licence(s).

AMC ~~A~~ 1 to MED.B.020

METABOLIC AND ENDOCRINE SYSTEMS - class 1 medical certificates

1. *Metabolic, nutritional or endocrine dysfunction*

   Applicants with metabolic, nutritional or endocrine dysfunction should be assessed as fit if the condition is asymptomatic, clinically compensated and stable with or without replacement therapy, and regularly reviewed by an appropriate specialist.

2. *Obesity*

   Applicants with a Body Mass Index $\geqq$ 35 may be assessed as fit only if the excess weight is not likely to interfere with the safe exercise of the applicable licence(s) and a satisfactory cardiovascular risk review has been undertaken.

3. *Addison's disease*

Addison's disease is disqualifying. A fit assessment may be considered**,** provided that cortisone is carried and available for use whilst exercising the privileges of the licence. Applicants may be assessed as fit with a multi-pilot limitation.

4. *Gout*

Applicants with acute gout should be assessed as unfit. A fit assessment may be considered once asymptomatic, after cessation of treatment or the condition is stabilised on anti-hyperuricaemic therapy.

5. *Thyroid dysfunction*

Applicants with hyperthyroidism or hypothyroidism should be assessed as unfit. A fit assessment may be considered when a stable euthyroid state is attained.

6. *Abnormal glucose metabolism*

Glycosuria and abnormal blood glucose levels require investigation. A fit assessment may be considered if normal glucose tolerance is demonstrated (low renal threshold) or impaired glucose tolerance without diabetic pathology is fully controlled by diet and regularly reviewed.

7. *Diabetes mellitus*

Subject to good control of blood sugar with no hypoglycaemic episodes:

(i) applicants with diabetes mellitus **not requiring medication** may be assessed as fit;

(ii) the use of ~~certain~~ antidiabetic medications **that are not likely to cause hypoglycaemia** may be acceptable for a fit assessment with a multi-pilot limitation**.**

AMC ~~A~~ 1 to MED.B.025

HAEMATOLOGY - class 1 medical certificates

1. *Abnormal haemoglobin*

Applicants with abnormal haemoglobin shall be investigated.

2. *Anaemia*

2.1. Applicants with anaemia demonstrated by a reduced haemoglobin level or haematocrit less than 32 % should be assessed as unfit and require investigation. A fit assessment may be considered in cases where the primary cause has been treated (e.g. iron or B12 deficiency) and the haemoglobin or haematocrit has stabilised at a satisfactory level.

2.2. Anaemia which is unamenable to treatment is disqualifying.

3 *Polycythaemia*

Applicants with polycythaemia should be assessed as unfit and require investigation. A fit assessment with a multi-pilot limitation may be considered if the condition is stable and no associated pathology is demonstrated.

4. *Haemoglobinopathy*

4.1. Applicants with a haemoglobinopathy should be assessed as unfit. A fit assessment may be considered where minor thalassaemia or other haemoglobinopathy is diagnosed without a history of crises and where full functional capability is demonstrated. The haemoglobin level should be satisfactory.

4.2. Applicants with sickle cell disease shall be assessed as unfit.

5. *Coagulation disorders*

Applicants with a coagulation disorder should be assessed as unfit. A fit assessment may be considered if there is no history of significant bleeding episodes.

6. *Haemorrhagic disorders*

Applicants with a haemorrhagic disorder require investigation. A fit assessment with a multi-pilot limitation may be considered if there is no history of significant bleeding.

7. *Thrombo-embolic disorders*

7.1. Applicants with a thrombotic disorder require investigation. A fit assessment with a multi-pilot limitation may be considered if there is no history of significant clotting episodes.

~~7.2. Applicants with a deep vein thrombosis or pulmonary embolus shall be assessed as unfit. A fit assessment may be considered after anti-coagulation therapy is discontinued.~~

7.~~3~~**2**. An arterial embolus is disqualifying.

8. *Disorders of the lymphatic system*

Applicants with significant localised and generalised enlargement of the lymphatic glands and diseases of the blood should be assessed as unfit and require investigation. A fit assessment may be considered in cases of acute infectious process which is fully recovered or Hodgkin's lymphoma or other lymphoid malignancy which has been treated and is in full remission.

9. *Leukaemia*

9.1. Applicants with acute leukaemia should be assessed as unfit. Once in established remission, applicants may be assessed as fit.

9.2. Applicants with chronic leukaemia should be assessed as unfit. After a period of demonstrated stability a fit assessment may be considered.

9.3. Applicants with a history of leukaemia should have no history of central nervous system involvement and no continuing side-effects from treatment of flight safety importance. Haemoglobin and platelet levels should be satisfactory. Regular follow-up is required.

10. *Splenomegaly*

Applicants with splenomegaly should be assessed as unfit and require investigation. A fit assessment may be considered when the enlargement is minimal, stable and no associated pathology is demonstrated, or if the enlargement is minimal and associated with another acceptable condition.

AMC ~~A~~ 1 to MED.B.030

GENITOURINARY SYSTEM - class 1 medical certificates

1. *Abnormal urinalysis*

Investigation is required if there is any abnormal finding on urinalysis.

2. *Renal disease*

2.1. Applicants presenting with any signs of renal disease should be assessed as unfit. A fit assessment may be considered if blood pressure is satisfactory and renal function is acceptable.

2.2. The requirement for dialysis is disqualifying.

3. *Urinary calculi*

3.1. Applicants with an asymptomatic calculus or a history of renal colic require investigation.

3.2. Applicants presenting with one or more urinary calculi should be assessed as unfit and require investigation.

3.3. A fit assessment with a multi-pilot limitation may be considered whilst awaiting assessment or treatment.

3.4. A fit assessment without multi-pilot limitation may be considered after successful treatment for a calculus.

3.5. With residual calculi, a fit assessment with a multi-pilot limitation may be considered.

4. *Renal/Urological surgery*

4.1. Applicants who have undergone a major surgical operation on the urinary tract or the urinary apparatus involving a total or partial excision or a diversion of any of its organs ~~shall~~ **should** be assessed as unfit for a minimum period of three months or until such time as the effects of the operation are no longer likely to cause incapacity in flight. After other urological surgery**,** a fit assessment may be considered if the applicant is completely asymptomatic and there is minimal risk of secondary complication or recurrence.

4.2. An applicant with compensated nephrectomy without hypertension or uraemia may be considered for a fit assessment.

4.3 Applicants who have undergone renal transplantation may be considered for a fit assessment if it is fully compensated and tolerated with only minimal immuno-suppressive therapy after at least 12 months. Applicants may be assessed as fit with a multi-pilot limitation.

4.4. Applicants who have undergone total cystectomy may be considered for a fit assessment if there is satisfactory urinary function, no infection and no recurrence of primary pathology. Applicants may be assessed as fit with a multi-pilot limitation.

AMC ~~A~~ 1 to MED.B.035

INFECTIOUS DISEASE - class 1 medical certificates

1. *Infectious disease - General*

In cases of infectious disease**,** consideration should be given to a history of, or clinical signs indicating, underlying impairment of the immune system.

2. *Tuberculosis*

Applicants with active tuberculosis should be assessed as unfit. A fit assessment may be considered following completion of therapy.

3. *Syphilis*

Acute syphilis is disqualifying. A fit assessment may be considered in the case of those fully treated and recovered from the primary and secondary stages.

4. *HIV infection*

4.1. HIV positivity is disqualifying. A fit assessment with a multi-pilot limitation may be considered for individuals with stable, non-progressive disease. Frequent review is required.

4.2. The occurrence of AIDS or AIDS related complex is disqualifying.

5 *Infectious hepatitis*

Infectious hepatitis is disqualifying. A fit assessment may be considered after full recovery.

AMC ~~A~~ 1 to MED.B.040

OBSTETRICS AND GYNAECOLOGY - class 1 medical certificates

1. *Gynaecological surgery*

An applicant who has undergone a major gynaecological operation shall be assessed as unfit for a period of three months or until such time as the effects of the operation are not likely to interfere with the safe exercise of the privileges of the licence(s) if the holder is completely asymptomatic and there is only a minimal risk of secondary complication or recurrence.

2. *Severe menstrual disturbances*

An applicant with a history of severe menstrual disturbances unamenable to treatment shall be assessed as unfit.

3. *Pregnancy*

3.1. A pregnant ~~pilot~~ **licence holder** may be assessed as fit with a multi-pilot limitation during the first 26 weeks of gestation**,** following review of the obstetric evaluation by the AeMC or AME who shall inform the licensing authority.

3.2. The AeMC or AME shall provide written advice to the applicant and the supervising physician regarding potentially significant complications of pregnancy.

AMC ~~A~~ 1 to MED.B.045

MUSCULOSKELETAL SYSTEM - class 1 medical certificates

1. An applicant with any significant sequela from disease, injury or congenital abnormality ~~of~~ **affecting** the bones, joints, muscles or tendons with or without surgery requires full evaluation prior to a fit assessment.
2. In cases of limb deficiency, a fit assessment may be considered following a satisfactory medical flight test or simulator testing.
3. An applicant with inflammatory, infiltrative, traumatic or degenerative disease of the musculoskeletal system may be assessed as fit provided the condition is in remission and the applicant is taking no disqualifying medication and has satisfactorily completed a medical flight or simulator flight test. A limitation to specified aircraft type(s) may be required.
4. Abnormal physique, including obesity, or muscular weakness may require medical flight or flight simulator testing. Particular attention shall be paid to emergency procedures and evacuation. A limitation to specified aircraft type(s) may be required.

AMC ~~A~~ 1 to MED.B.050

PSYCHIATRY - class 1 medical certificates

1. *Psychotic disorder*

   A history of, or the occurrence of, a functional psychotic disorder is disqualifying unless ~~in certain rare cases~~ a cause can be unequivocally identified as one which is transient, has ceased and will not recur.

2. *Organic mental disorder*

   An organic mental disorder is disqualifying. Once the cause has been treated**,** an applicant may be assessed as fit following satisfactory psychiatric review.

3. *Psychotropic substances*

   Use or abuse of psychotropic substances **likely to affect flight safety** is disqualifying.

4. *Schizophrenia, schizotypal or delusional disorder*

   Applicants with an established schizophrenia, schizotypal or delusional disorder should only be considered for a fit assessment if the licensing authority concludes that the original diagnosis was inappropriate or inaccurate or, in the case of a single episode of delirium, provided that the applicant has suffered no permanent impairment.

5. *Mood disorder*

   An established mood disorder is disqualifying. ~~A fit assessment may be considered after full consideration of an individual case, depending on the mood disorder characteristics and gravity and after all psychotropic medication has been stopped for an appropriate period.~~**After full recovery and after full consideration of an individual case a fit assessment may be considered, depending on the characteristics and gravity of the mood disorder. If a stable maintenance psychotropic medication is confirmed, a fit assessment should require an OML limitation.**

6. *Neurotic, stress-related or somatoform disorder*

Where there is suspicion or established evidence that an applicant has a neurotic, stress-related or somatoform disorder, the applicant should be referred for psychiatric opinion and advice.

7. *Personality or behavioural disorder*

Where there is suspicion or established evidence that an applicant has a personality or behavioural disorder, the applicant should be referred for psychiatric opinion and advice.

8. *Disorders due to alcohol or other substance use*

8.1 Mental or behavioural disorders due to alcohol or other substance use, with or without dependency, are disqualifying.

8.2. A fit assessment may be considered after a period of two years documented sobriety or freedom from substance use. A fit assessment may be considered earlier with a multi-pilot limitation. Depending on the individual case, treatment and review may include:

(i) in-patient treatment of some weeks followed by;

(ii) review by a psychiatric specialist; and

(iii) ongoing review including blood testing and peer reports, which may be required indefinitely.

9 *Deliberate self-harm*

A single self-~~-~~destructive action or repeated acts of deliberate self-harm are disqualifying. A fit assessment may be considered after full consideration of an individual case and may require psychiatric or psychological review. Neuropsychological assessment may also be required.

AMC ~~A~~ 1 to MED.B.055

PSYCHOLOGY - class 1 medical certificates

1. Where there is suspicion or established evidence that an applicant has a psychological disorder, the applicant should be referred for psychological opinion and advice.

2. Established evidence should be verifiable information from an identifiable source which evokes doubts concerning the mental fitness or personality of a particular individual. Sources for this information can be accidents or incidents, problems in training or proficiency checks, delinquency or knowledge relevant to the safe exercise of the privileges of the applicable licence.

3. The psychological evaluation may include a collection of biographical data, the administration of aptitude as well as personality tests and psychological interview.

4. The psychologist should submit a written report to the AME, AeMC or licensing authority as appropriate, detailing his/her opinion and recommendation

AMC ~~A~~ 1 to MED.B.060

NEUROLOGY - class 1 medical certificates

1. *Epilepsy*

1.1. A diagnosis of epilepsy is disqualifying, unless there is unequivocal evidence of a syndrome of benign childhood epilepsy associated with a very low risk of recurrence, and unless the applicant has been free of recurrence and off treatment for more than 10 years. One or more convulsive episodes after the age of 5 are disqualifying. In the case of an acute symptomatic seizure, which is considered to have a very low risk of recurrence, a fit assessment may be considered **after neurological review**.

1.2. An applicant may be assessed as fit with a multi-pilot limitation if:

(i) there is a history of a single afebrile epileptiform seizure;

(ii) there has been no recurrence after at least 10 years off treatment;

(iii) there is no evidence of continuing predisposition to epilepsy.

2. *Conditions with a high propensity for cerebral dysfunction*

An applicant with a condition with a high propensity for cerebral dysfunction should be assessed as unfit. A fit assessment may be considered after full evaluation.

3. *Clinical EEG abnormalities*

3.1. Electroencephalography is required when indicated by the applicant's history or on clinical grounds.

3.2. Epileptiform paroxysmal EEG abnormalities and focal slow waves ~~should be~~ **normally are** disqualifying.

4. *Neurological disease*

Any stationary or progressive disease of the nervous system which has caused or is likely to cause a significant disability is disqualifying. However, in case of minor functional losses associated with stationary disease**,** a fit assessment may be considered after full evaluation.

5. *Episode of disturbance of consciousness*

In the case of a single episode of disturbance of consciousness, which can be satisfactorily explained, a fit assessment may be considered**, but a recurrence is normally disqualifying**.

6. *Head injury*

An applicant with a head injury which was severe enough to cause loss of consciousness or is associated with penetrating brain injury should be reviewed by a consultant neurologist. A fit assessment may be considered if there has been a full recovery and the risk of epilepsy is sufficiently low.

7. Spinal or peripheral nerve injury, myopathies

An applicant with a history or diagnosis of spinal or peripheral nerve injury **or myopathy** should be assessed as unfit. A fit assessment may be considered if neurological review and musculoskeletal assessments are satisfactory.

AMC ~~A~~ 1 to MED.B.065

VISUAL SYSTEM - class 1 medical certificates

1. *Eye examination*

1.1. At each aeromedical revalidation examination, an assessment of the visual fitness should be undertaken and the eyes should be examined with regard to possible pathology.

1.2. All abnormal and doubtful cases should be referred to an ophthalmologist. Conditions which indicate ophthalmological examination include, but are not limited to, a substantial decrease in the uncorrected visual acuity, any decrease in best corrected visual acuity and/or the occurrence of eye disease, eye injury, or eye surgery.

1.3. Where specialist ophthalmological examinations are required for any significant reason, this should be imposed as a limitation on the medical certificate.

2. *Comprehensive eye examination*

A comprehensive visual examination by an eye specialist is required at the initial examination. All abnormal and doubtful cases should be referred to an ophthalmologist. The examination should include:

(i) history;

(ii) visual acuities; near, intermediate and distant vision (uncorrected and with best optical correction if needed);

(iii) examination of the external eye, anatomy, media (slit lamp) and fundoscopy;

(iv) ocular motility;

(v) binocular vision;

(vi) colour vision;

(vii) visual fields;

(viii) tonometry on clinical indication; and

(ix) refraction. Hyperopic initial applicants **with an hyperopia of more than +2 dioptres and** under the age of 25 should undergo objective refraction in cycloplegia.

3. *Routine eye examination*

A routine eye examination may be performed by an AME and should include:

(i) history;

(ii) visual acuities; near, intermediate and distant vision (uncorrected and with best optical correction if needed);

(iii) examination of the external eye, anatomy, media and fundoscopy;

(iv) further examination on clinical indication.

4 *Refractive error*

4.1. At initial examination an applicant may be assessed as fit with:

(i) hypermetropia not exceeding +5.0 dioptres;

(ii) myopia not exceeding -6.0 dioptres;

(iii) astigmatism not exceeding 2.0 dioptres;

(iv) anisometropia not exceeding 2.0 dioptres;

provided that optimal correction has been considered and no significant pathology is demonstrated.

4.2. Initial applicants who do not meet the requirements in 4.1 (ii), (iii) and (iv) above should be referred to the licensing authority. A fit assessment may be considered following review by an ophthalmologist.

4.~~2~~**3**. At revalidation an applicant may be assessed as fit with:

(i) hypermetropia not exceeding +5.0 dioptres;

(ii) myopia exceeding -6.0 dioptres;

(iii) astigmatism exceeding 2.0 dioptres;

(iv) anisometropia exceeding 2.0 dioptres~~ (contact lenses should be worn if the anisometropia exceeds 3.0 dioptres~~;

provided that optimal correction has been considered and no significant pathology is demonstrated.

4.4~~5~~. If anisometropia exceeds 3.0 dioptres contact lenses should be worn.

4.**5~~6~~**. If the refractive error is +3.0 to +5.0 or -3.0 to -6.0 dioptres**, there is astigmatism or anisometropia of more than 2 dioptres but less than 3 dioptres** a review shall be undertaken 5 yearly by an eye specialist.

4. ~~4~~**6**. If the refractive error is greater than **+5 or** -6.0 dioptres, there is more than 3.0 dioptres of astigmatism or anisometropia exceeds 3.0 dioptres, a review shall be undertaken 2 yearly by an eye specialist.

4.7~~8~~. In cases 4.~~3~~**6**. and 4.~~4~~**7**. above the applicant should supply the eye specialist's report to the AME. The report should be forwarded to the licensing authority as part of the medical examination report. All abnormal and doubtful cases should be referred to an ophthalmologist.

5. *Uncorrected visual acuity*

No limits apply to uncorrected visual acuity**.**~~;~~

6. *Substandard vision*

6.1. Applicants with reduced central vision in one eye may be assessed as fit if the binocular visual field is normal and the underlying pathology is acceptable according to ophthalmological assessment. A satisfactory medical flight test and a multi-pilot limitation are required.

6.2. An applicant with acquired substandard vision in one eye may be assessed as fit with a multi-pilot limitation if:

(i) the better eye achieves distant visual acuity of 6/6 (1.0), corrected or uncorrected;

(ii) the better eye achieves intermediate visual acuity of N14 and N5 for near;

(iii) in the case of acute loss of vision in one eye, a period of adaptation time has passed from the known point of visual loss, during which the ~~pilot~~ **applicant** is assessed as unfit;

(iv) there is no significant ocular pathology; and

(v) a medical flight test is satisfactory.

6.3. An applicant with a visual field defect may be considered as fit if the binocular visual field is normal and the underlying pathology is acceptable to the licensing authority.

7. *Keratoconus*

Applicants with keratoconus may be considered for a fit assessment if the visual requirements are met with the use of corrective lenses and periodic review is undertaken by an ophthalmologist.

8. *Heterophoria*

Applicants with a heterophoria (imbalance of the ocular muscles) exceeding:

At 6 metres 2.0 prism dioptres in hyperphoria,

10.0 prism dioptres in esophoria,

8.0 prism dioptres in exophoria;

and

At 33cms 1.0 prism dioptre in hyperphoria,

8.0 prism dioptres in esophoria,

12.0 prism dioptres in exophoria

should be assessed as unfit. The applicant should be reviewed by an ophthalmologist and if the fusional reserves are sufficient to prevent asthenopia and diplopia a fit assessment may be considered.

9. *Eye surgery*

9.1. After refractive surgery, a fit assessment may be considered**,** provided that:

(i) pre-operative refraction was no greater than +5 ~~or -6~~ dioptres;

(ii) post-operative stability of refraction has been achieved (less than 0.75 dioptres variation diurnally);

(iii) examination of the eye shows no postoperative complications;

(iv) glare sensitivity is within normal standards;

(v) mesopic contrast sensitivity is not impaired;

(vi) review is undertaken by an eye specialist**.**

9.2. Cataract surgery entails unfitness. A fit assessment may be considered after 3 months.

9.3 Retinal surgery entails unfitness. A fit assessment may be considered 6 months after successful surgery. A fit assessment may be acceptable earlier after retinal laser therapy. Follow-up may be required.

9.4. Glaucoma surgery entails unfitness. A fit assessment may be considered 6 months after successful surgery. Follow-up may be required.

9.5. For 9.2., 9.3. and 9.4. above, a fit assessment may be considered earlier if recovery is complete.

10. *Correcting lenses*

Correcting lenses should permit the licence holder to meet the visual requirements at all distances.

AMC A to MED B.070

COLOUR VISION - class 1 medical certificates

1. At revalidation colour vision should be tested on clinical indication.
2. The Ishihara test (24 plate version) is considered passed if the first 15 plates, presented in a random order, are identified without error.
3. Those failing the Ishihara test should be examined either by:

(i)- Anomaloscopy (Nagel or equivalent). This test is considered passed if the c**o**lour match is trichromatic and the matching range is 4 scale units or less~~,~~**;** or by

(ii)- Lantern testing **with a Spectrolux, Beynes or Holmes-Wright lantern**. This test is considered passed if the applicant passes without error a test with accepted lanterns.

AMC A to MED.B.075

OTORHINOLARYNGOLOGY - class 1 medical certificates

1. *Hearing*

1.1. The applicant should understand correctly conversational speech when tested with each ear at a distance of 2 metres from and with the applicant's back turned towards the AME.

1.2. The pure tone audiogram ~~shall~~ **should** cover the 500Hz, 1000Hz, 2000Hz and 3000Hz frequency thresholds.

1.3. An applicant with hypoacusis should be referred to the licensing authority. A fit assessment can be made if a speech discrimination test or functional flight deck hearing test demonstrates satisfactory hearing ability. **A vestibular function test may be appropriate.**

1.4. If the hearing requirements can only be met with the use of hearing aids, the hearing aids should provide optimal hearing function, be well-tolerated and suitable for aviation purposes.

2. *Comprehensive otorhinolaryngological examination*

A comprehensive otorhinolaryngological examination should include:

(i) history;

(ii) clinical examination including otoscopy, rhinoscopy, and examination of the mouth and throat;

(iii) tympanometry or equivalent;

(iv) clinical assessment of the vestibular system.

3. *Ear conditions*

3.1. An applicant with an active pathological process, acute or chronic, of the internal or middle ear should be assessed as unfit. A fit assessment may be considered once the condition has stabilised or there has been a full recovery.

3.2. An applicant with an unhealed perforation or dysfunction of the tympanic membranes should be assessed as unfit. An applicant with a single dry perforation of non-infectious origin and which does not interfere with the normal function of the ear may be considered for a fit assessment.

4. *Vestibular disturbance*

An applicant with disturbance of vestibular function should be assessed as unfit. A fit assessment may be considered after full recovery. The presence of spontaneous or positional nystagmus requires complete vestibular evaluation by an ENT specialist. Significant abnormal caloric or rotational vestibular responses are disqualifying. Abnormal vestibular responses ~~shall~~ **should** be assessed in their clinical context.

5. *Sinus dysfunction*

An applicant with any dysfunction of the sinuses should be assessed as unfit until there has been full recovery.

6. *Oral/upper respiratory tract infections*

A significant, acute or chronic infection of the oral cavity or upper respiratory tract is disqualifying. A fit assessment may be considered after full recovery.

7. *Speech disorder*

A significant disorder of speech or voice is disqualifying.

AMC A to MED.B.080

DERMATOLOGY - class 1 medical certificates

1. Referral to the licensing authority should be made if doubt exists about the fitness of an applicant with eczema (exogenous and endogenous), severe psoriasis, bacterial infections, drug induced, or bullous eruptions or urticaria.

2. Systemic effects of radiant or pharmacological treatment for a dermatological condition should be considered before fit assessment.

3. In cases where a dermatological condition is associated with a systemic illness, full consideration should be given to the underlying illness before a fit assessment.

AMC A to MED.B.085

ONCOLOGY - class 1 medical certificates

~~1. Applicants may be assessed as fit after treatment for malignant disease if:~~

1. Applicants who underwent treatment for malignant disease may be assessed as fit by the licensing authority if:

(i) there is no evidence of residual malignant disease after treatment;

(ii) time appropriate to the type of tumour has elapsed since the end of treatment;

(iii) the risk of inflight incapacitation from a recurrence or metastasis is sufficiently low;

(iv) there is no evidence of short or long-term sequelae from treatment. Special attention should be paid to applicants who have received anthracycline chemotherapy;

(v) satisfactory oncology follow-up reports are provided to the licensing authority.

2. A multi-pilot limitation should be applied as appropriate.

3 ~~2~~. Applicants with pre-malignant conditions of the skin may be assessed as fit if treated or excised as necessary and there is regular follow-up.

Subpart B

REQUIREMENTS FOR MEDICAL CERTIFICATES

Specific requirements for class 1 and class 2 medical certificates

AMC for class 2 medical certificates

AMC ~~B~~ 2 to MED.B.005

CARDIOVASCULAR SYSTEM - class 2 medical certificates

(a) EXAMINATION

Exercise electrocardiography

An exercise ECG when required as part of a cardiovascular assessment should be symptom limited and completed to a minimum of Bruce Stage IV or equivalent.

(b) GENERAL

1. *Cardiovascular Risk Factor Assessment*

   An accumulation of risk factors (smoking, family history, lipid abnormalities, hypertension, etc.) requires cardiovascular evaluation.

2. *Cardiovascular Assessment*

   Reporting of resting and exercise electrocardiograms should be by the AME or ~~other~~ **an accredited** specialist.

3. *Peripheral Arterial Disease*

   A fit assessment may be considered for an applicant with peripheral arterial disease, or after surgery for peripheral arterial disease, provided there is no significant functional impairment, any vascular risk factors have been reduced to an appropriate level, the applicant is ~~on~~ **receiving** acceptable secondary prevention treatment, and there is no evidence of myocardial ischaemia.

4. *Aortic Aneurysm*

   4.1. Applicants with an aneurysm of the thoracic or abdominal aorta may be assessed as fit, subject to satisfactory cardiological evaluation and regular follow-up.

   4.2. Applicants may be assessed as fit after surgery for a thoracic or abdominal aortic aneurysm subject to satisfactory cardiological evaluation **to exclude the presence of coronary artery disease**.

5. *Cardiac Valvular Abnormalities*

   5.1. Applicants with previously unrecognised cardiac murmurs require further **cardiological** evaluation.

   5.2. Applicants with minor cardiac valvular abnormalities may be assessed as fit.

6. *Valvular surgery*

   6.1. Applicants who have undergone cardiac valve replacement or repair ~~should~~ **may** be assessed as fit if post-operative cardiac function and investigations are satisfactory **and no anticoagulants are needed**.

6.2. Where anticoagulation is needed after valvular surgery, a fit assessment with an OSL or OPL limitation may be considered after cardiological review. The review should show that the anticoagulation is stable. Anticoagulation should be considered stable if, within the last 6 months, at least 5 INR values are documented, of which at least 4 are within the INR target range.

7. ***Thromboembolic Disorders***

Arterial or venous thrombosis or pulmonary embolism are disqualifying whilst anticoagulation is being used as treatment. After 6 months of stable anticoagulation as prophylaxis, a fit assessment with an OSL or OPL limitation may be considered after review in consultation with the licensing authority. Anticoagulation should be considered stable if, within the last 6 months, at least 5 INR values are documented, of which at least 4 are within the INR target range. Pulmonary embolus should require full evaluation.

~~7~~**8**. *Other Cardiac Disorders*

~~7~~**8**.1. Applicants with a primary or secondary abnormality of the pericardium, myocardium or endocardium ~~should~~ **may** be assessed as unfit pending satisfactory cardiological evaluation.

~~7~~**8**.2. Applicants with a congenital abnormality of the heart, including those who have undergone surgical correction, may be assessed as fit subject to satisfactory cardiological assessment. **Cardiological follow-up may be necessary and should be determined in consultation with the licensing authority.**

~~8~~**9**. ~~*Recurrent Vasovagal *~~*Syncope*

Applicants with a history of recurrent vasovagal syncope ~~should~~ **may** be assessed as fit after a 6~~–~~**-**month period without recurrence**,** provided **that** cardiological evaluation is satisfactory. Neurological review may be indicated.

(c) BLOOD PRESSURE

1. When the blood pressure at examination consistently exceeds 160 mmHg systolic and/or 95 mmHg diastolic, with or without treatment, the applicant should be assessed as unfit.
2. The diagnosis of hypertension requires review of other potential vascular risk factors.
3. Applicants with symptomatic hypotension should be assessed as unfit.
4. Anti-hypertensive treatment should be compatible with flight safety.
5. **Following initiation of medication for the control of blood pressure, applicants should be re-assessed to verify that the treatment is compatible with the safe exercise of the privileges of the licence held.**

(d) CORONARY ARTERY DISEASE

1. Chest pain of uncertain cause requires full investigation.
2. In suspected asymptomatic coronary artery disease cardiological evaluation should show no evidence of myocardial ischaemia or significant coronary artery stenosis.
3. After an ischaemic cardiac event, or revascularisation, applicants without symptoms should have reduced any vascular risk factors to an appropriate level. Medication, when used to control ~~cardiac symptoms~~**angina pectoris**, is not acceptable. All applicants should be on acceptable secondary prevention treatment.

   3.1. A coronary angiogram obtained around the time of, or during, the ischaemic ~~cardiac~~ **myocardial** event and a complete, detailed clinical report of the ischaemic event, the angiogram and any operative procedures should be available.

      (i) There should be no stenosis more than 50% in any major untreated vessel, in any vein or artery graft or at the site of an angioplasty/stent, except in a

vessel ~~leading~~ **subtending** to an infarct. More than two stenoses between 30% and 50% within the vascular tree should not be acceptable.

(ii) The whole coronary vascular tree should be assessed as satisfactory and particular attention should be paid to multiple stenoses and/or multiple revascularisations.

(iii) An untreated stenosis greater than 30% in the left main or proximal left anterior descending coronary artery should not be acceptable.

3.2. At least 6 months from the ischaemic ~~cardiac~~ **myocardial** event, including revascularisation, the following investigations should be completed (equivalent tests may be substituted):

(i) an exercise ECG showing n**either**~~o~~ evidence of myocardial ischaemia nor rhythm disturbance;

(ii) an echocardiogram showing satisfactory left ventricular function with no important abnormality of wall motion and a satisfactory left ventricular ejection fraction**, not less than 50%;**~~.~~

(iii) in cases of angioplasty/stenting, a myocardial perfusion scan or stress echocardiogram which ~~shall~~ **should** show no evidence of reversible myocardial ischaemia. If there is ~~any~~ doubt about ~~myocardial perfusion in other cases (~~**revascularisation in myocardial** infarction or bypass grafting**,**~~)~~ a perfusion scan ~~will~~ **should** also be required;

(iv) **f**~~F~~urther investigations, such as a 24~~-~~-hour ECG, may be necessary to assess the risk of any significant rhythm disturbance.

3.3. Periodic follow-up should include cardiological review**.**

3.4. After coronary artery ~~vein~~ bypass grafting, a myocardial perfusion scan (or satisfactory equivalent test) should be performed if there is any indication, and in all cases within five years from the procedure for a fit assessment without a safety pilot limitation.

3.5. In all cases**,** coronary angiography should be considered at any time if symptoms, signs or non-invasive tests indicate ~~cardiac~~ **myocardial** ischaemia.

3.6. Successful completion of the six month or subsequent review will allow a fit assessment. Applicants may fly with a safety pilot limitation having successfully completed only an exercise ECG.

4. Angina pectoris is disqualifying, whether or not it is abolished by medication.

(e) RHYTHM AND CONDUCTION DISTURBANCES

Any significant rhythm or conduction disturbance should require cardiological evaluation and an appropriate follow-up in the case of a fit assessment. An OSL or OPL limitation should be considered as appropriate.

1. *Ablation*

A fit assessment may be considered following successful catheter ablation subject to satisfactory cardiological review undertaken at a minimum of two months after the ablation.

2. *Supraventricular Arrhythmias*

2.1. Applicants with significant disturbance of supraventricular rhythm, including sinoatrial dysfunction, whether intermittent or established, may be assessed as fit if cardiological evaluation is satisfactory.

2.2. Applicants with atrial fibrillation/flutter may be assessed as fit if cardiological evaluation is satisfactory.

2.3. Applicants with asymptomatic sinus pauses up to 2.5 seconds on resting electrocardiography may be assessed as fit if cardiological evaluation is satisfactory.

3. *Heart Block*

3.1. Applicants with first degree and Mobitz type 1 A-V block may be assessed as fit.

3.2. Applicants with Mobitz type 2 AV block may be assessed as fit in the absence of distal conducting tissue disease.

4. *Complete right bundle branch block*

Applicants with complete right bundle branch block may be assessed as fit subject to satisfactory cardiological evaluation.

5. *Complete left bundle branch block*

Applicants with complete left bundle branch block may be assessed as fit subject to satisfactory cardiological assessment.

6. *Ventricular pre-excitation*

Asymptomatic a~~A~~pplicants with ventricular pre-excitation ~~should~~ **may** be assessed as fit subject to satisfactory cardiological evaluation.

7. *Pacemaker*

7.1. Applicants with a subendocardial pacemaker may be assessed as fit no sooner than three months after insertion provided:

(i) there is no other disqualifying condition;

(ii) a bipolar lead system is used**, programmed in bipolar mode without automatic mode change of the device**;

(iii) the applicant is not pacemaker dependent; and

(iv) the applicant has **a** regular follow-up including a pacemaker check.

~~7.2. Applicants with an anti-tachycardia pacemaker should be assessed as unfit.~~

AMC B to MED.B.010

RESPIRATORY SYSTEM - class 2 medical certificates

1. *Chest radiography*

Posterior/anterior chest radiography may be required if indicated on clinical grounds.

2. *Chronic obstructive airways disease*

Applicants with only minor impairment of pulmonary function may be assessed as fit.

3. *Asthma*

Applicants with asthma may be assessed as fit if the asthma is considered stable with satisfactory pulmonary function tests and medication is compatible with flight safety (systemic steroids are disqualifying).

4. *Inflammatory disease*

Applicants with active inflammatory disease of the respiratory system should be assessed as unfit pending resolution of the condition.

5. *Sarcoidosis*

5.1 Applicants with active sarcoidosis should be assessed as unfit. Investigation should be undertaken with respect to the possibility of systemic involvement. A fit assessment may be considered once the disease is inactive.

5.2 Applicants with cardiac sarcoid should be assessed as unfit.

6. *Pneumothorax*

   6.1. Applicants with spontaneous pneumothorax should be assessed as unfit. –A fit assessment may be considered if respiratory evaluation is satisfactory six weeks following full recovery from a single spontaneous pneumothorax or following recovery from surgical intervention in the case of treatment for a recurrent pneumothorax.

   6.2. A fit assessment following full recovery from a traumatic pneumothorax as a result of an accident or injury may be acceptable once full absorption of the pneumothorax is demonstrated.

7. *Thoracic surgery*

   Applicants requiring major thoracic surgery should be assessed as unfit until such time as the effects of the operation are no longer likely to interfere with the safe exercise of the privileges of the applicable licence(s).

8 *Sleep apnoea syndrome*

   Applicants with unsatisfactorily treated sleep apnoea syndrome should be assessed as unfit.

AMC B to MED.B.015

DIGESTIVE SYSTEM - class 2 medical certificates

1. *Oesophageal* varices

   Applicants with oesophageal varices should be assessed as unfit.

2. *Pancreatitis*

   Applicants with pancreatitis should be assessed as unfit pending satisfactory recovery.

3. *Gallstones*

   3.1. Applicants with a single asymptomatic large gallstone or asymptomatic multiple gallstones may be assessed as fit.

   3.2. Applicants with symptomatic single or multiple gallstones should be assessed as unfit. A fit assessment may be considered following gallstone removal.

4. *Inflammatory bowel disease*

   Applicants with an established diagnosis or history of chronic inflammatory bowel disease ~~should~~**may** be assessed as fit provided that the disease is stable and not likely to interfere with the safe exercise of the privileges of the applicable licence(s).

5. *Peptic ulceration*

   Applicants with peptic ulceration should be assessed as unfit pending full recovery.

6. *Abdominal surgery*

   6.1. Abdominal surgery is disqualifying. A fit assessment may be considered if recovery is complete, the applicant is asymptomatic and there is only a minimal risk of secondary complication or recurrence.

   6.2. Applicants, who have undergone a surgical operation on the digestive tract or its adnexa, involving a total or partial excision or a diversion of any of these organs, should be assessed as unfit until such time as the effects of the operation are no longer likely to interfere with the safe exercise of the privileges of the applicable licence(s).

AMC B to MED.B.020

METABOLIC AND ENDOCRINE SYSTEMS - class 2 medical certificates

1. *Metabolic, nutritional or endocrine dysfunction*

   Metabolic, nutritional or endocrine dysfunction is disqualifying. A fit assessment may be considered if the condition is asymptomatic, clinically compensated and stable.

2. *Obesity*

   Obese applicants may be assessed as fit only if the excess weight is not likely to interfere with the safe exercise of the applicable licence(s).

3. *Addison's disease*

   Applicants with Addison's disease may be assessed as fit provided that cortisone is carried and available for use whilst exercising the privileges of the licence.

4. *Gout*

   Applicants with acute gout should be assessed as unfit until asymptomatic.

5. *Thyroid dysfunction*

   Applicants with thyroid disease may be assessed as fit once a stable euthyroid state is attained.

6. *Abnormal glucose metabolism*

   Glycosuria and abnormal blood glucose levels require investigation. A fit assessment may be considered if normal glucose tolerance is demonstrated (low renal threshold) or impaired glucose tolerance is fully controlled by diet and regularly reviewed.

7. *Diabetes mellitus*

   Applicants with diabetes mellitus may be assessed as fit. The use of ~~certain~~ antidiabetic medications **that are not likely to cause hypoglycaemia** may be acceptable.

AMC B to MED.B.025

HAEMATOLOGY - class 2 medical certificates

1. *Abnormal haemoglobin*

   Haemoglobin should be tested when clinically indicated.

2. *Anaemia*

   Applicants with anaemia demonstrated by a reduced haemoglobin level or low haematocrit ~~should~~**may** be assessed as fit once the primary cause has been treated and the haemoglobin or haematocrit has stabilised at a satisfactory level.

3 *Polycythaemia*

Applicants with polycythaemia may be assessed as fit if the condition is stable and no associated pathology is demonstrated.

4. *Haemoglobinopathy*

Applicants with a haemoglobinopathy ~~should~~ **may** be assessed as fit if minor thalassaemia or other haemoglobinopathy is diagnosed without a history of crises and where full functional capability is demonstrated.

5. *Coagulation and Haemorrhagic disorders*

Applicants with a coagulation or haemorrhagic disorder may be assessed as fit if there is no likelihood of significant bleeding.

6. *Thrombo-embolic disorders*

6.1. Applicants with a thrombotic disorder may be assessed as fit if there is no likelihood of significant clotting episodes.

~~6.2. Applicants with a deep vein thrombosis or pulmonary embolus should be assessed as fit after anti-coagulation therapy is discontinued.~~

7. *Disorders of the lymphatic system*

Applicants with significant enlargement of the lymphatic glands or haematological disease ~~should~~ **may** be assessed as fit if the condition is unlikely to interfere with the safe exercise of the privileges of the applicable licence(s). Applicants may be assessed as fit in cases of acute infectious process which is fully recovered or Hodgkin's lymphoma or other lymphoid malignancy which has been treated and is in full remission.

8. *Leukaemia*

8.1. Applicants with acute leukaemia ~~should~~ **may** be assessed as fit once in established remission.

8.2. Applicants with chronic leukaemia ~~should~~ **may** be assessed as fit after a period of demonstrated stability.

8.3. In cases 8.1 and 8.2. above there should be no history of central nervous system involvement and no continuing side-effects from treatment of flight safety importance. Haemoglobin and platelet levels should be satisfactory. A regular follow-up is required.

9. *Splenomegaly*

Applicants with splenomegaly may be assessed as fit if the enlargement is minimal, stable and no associated pathology is demonstrated or if the enlargement is minimal and associated with another acceptable condition.

AMC B to MED.B.030

GENITOURINARY SYSTEM - class 2 medical certificates

1. *Renal disease*

Applicants presenting with renal disease may be assessed as fit if blood pressure is satisfactory and renal function is acceptable. The requirement for dialysis is disqualifying.

2. *Urinary calculi*

2.1. Applicants presenting with one or more urinary calculi should be assessed as unfit.

2.2. Applicants with an asymptomatic calculus or a history of renal colic require investigation.

2.3. While awaiting assessment or treatment, a fit assessment with a safety-pilot limitation may be considered.

2.4. After successful treatment the applicant may be assessed as fit.

2.5. For parenchymal residual calculi, the applicant may be assessed as fit.

3. *Renal/Urological surgery*

3.1. Applicants who have undergone a major surgical operation on the urinary tract or the urinary apparatus involving a total or partial excision or a diversion of any of its organs should be assessed as unfit until such time as the effects of the operation are no longer likely to cause incapacity in flight. After other urological surgery, a fit assessment may be considered if the applicant is completely asymptomatic and there is minimal risk of secondary complication or recurrence presenting with renal disease may be assessed as fit if blood pressure is satisfactory and renal function is acceptable. The requirement for dialysis is disqualifying.

3.2. An applicant with compensated nephrectomy without hypertension or uraemia may be considered fit.

3.3. Renal transplantation may be considered if it is fully compensated and tolerated with only minimal immuno-suppressive therapy after at least 12 months.

3.4. Total cystectomy may be considered if there is satisfactory urinary function, no infection and no recurrence of primary pathology.

AMC B to MED.B.035

INFECTIOUS DISEASE - class 2 medical certificates

1. *Tuberculosis*

Applicants with active tuberculosis should be assessed as unfit until completion of therapy.

2. *HIV infection*

A fit assessment **may be considered for** ~~of~~ HIV positive individuals **with stable, non-progressive disease if full investigation provides no evidence of HIV-associated diseases that might give rise to incapacitating symptoms.** ~~may be considered if investigation provides no evidence of clinical disease, subject to frequent review. The occurrence of AIDS or AIDS related complex is disqualifying.~~

AMC B to MED.B.040

OBSTETRICS AND GYNAECOLOGY - class 2 medical certificates

1. *Gynaecological surgery*

   An applicant who has undergone a major gynaecological operation should be assessed as unfit until such time as the effects of the operation are not likely to interfere with the safe exercise of the privileges of the licence(s).

2. *Pregnancy*

   2.1. A pregnant ~~pilot~~ **licence holder** may be assessed as fit during the first 26 weeks of gestation following satisfactory obstetric evaluation.

   2.2. Licence privileges may be resumed upon satisfactory confirmation of full recovery following confinement or termination of pregnancy.

AMC B to MED.B.045

MUSCULOSKELETAL SYSTEM - class 2 medical certificates

1. An applicant with any significant sequela from disease, injury or congenital abnormality ~~of~~ **affecting** the bones, joints, muscles or tendons with or without surgery should require full evaluation prior to fit assessment.

2. In cases of limb deficiency, a fit assessment may be considered following a satisfactory medical flight test.

3. An applicant with inflammatory, infiltrative, traumatic or degenerative disease of the musculoskeletal system may be assessed as fit**,** provided the condition is in remission and the applicant is taking no disqualifying medication and has satisfactorily completed a medical flight test. A limitation to specified aircraft type(s) may be required.

4. Abnormal physique or muscular weakness may require a satisfactory medical flight test. A limitation to specified aircraft type(s) may be required.

AMC B to MED.B.050

PSYCHIATRY - class 2 medical certificates

1. *Psychotic disorder*

   A history of, or the occurrence of, a functional psychotic disorder is disqualifying unless in certain rare cases a cause can be unequivocally identified as one which is transient, has ceased and will not recur.

2. *Psychotropic substances*

   Use or abuse of psychotropic substances likely to affect flight safety is disqualifying. **If a stable maintenance psychotropic medication is confirmed, a fit assessment with an OSL limitation may be considered.**

3. *Schizophrenia, schizotypal or delusional disorder*

   An applicant with a history of schizophrenia, schizotypal or delusional disorder may only be considered fit if the original diagnosis was inappropriate or inaccurate as confirmed by

psychiatric evaluation or, in the case of a single episode of delirium, provided that the applicant has suffered no permanent impairment.

4. Disorders due to alcohol or other substance use

4.1 Mental or behavioural disorders due to alcohol or other substance use, with or without dependency, are disqualifying.

4.2. A fit assessment may be considered in consultation with the licensing authority after a period of two years documented sobriety or freedom from substance use. A fit assessment may be considered earlier with an OSL or OPL limitation. Depending on the individual case, treatment and review may include:

(i) in-patient treatment of some weeks followed by;

(ii) review by a psychiatric specialist; and

(iii) ongoing review, including blood testing and peer reports, which may be required indefinitely.

AMC B to MED.B.055

PSYCHOLOGY- class 2 medical certificates

Applicants with a psychological disorder may need to be referred for psychological or neuropsychiatric opinion and advice.

AMC B to MED.B.060

NEUROLOGY - class 2 medical certificates

1. *Epilepsy*

An applicant may be assessed as fit if:

(i) there is a history of a single afebrile epileptiform seizure, considered to have a very low risk of recurrence;

(ii) there has been no recurrence after at least 10 years off treatment;

(iii) there is no evidence of continuing predisposition to epilepsy.

2. *Conditions with a high propensity for cerebral dysfunction*

An applicant with a condition with a high propensity for cerebral dysfunction should be assessed as unfit. ~~-~~A fit assessment may be considered after full evaluation.

3. *Neurological disease*

Any stationary or progressive disease of the nervous system which has caused or is likely to cause a significant disability is disqualifying. In case of minor functional loss associated with stationary disease**,** a fit assessment may be considered after full evaluation.

4. *Head injury*

An applicant with a head injury which was severe enough to cause loss of consciousness or is associated with penetrating brain injury ~~should~~**may** be assessed as fit if there has been a full recovery and the risk of epilepsy is sufficiently low.

AMC B to MED.B.065

VISUAL SYSTEM - class 2 medical certificates

1. *Eye examination*

1.1. At each aeromedical revalidation examination an assessment of the visual fitness of the licence holder should be undertaken and the eyes should be examined with regard to possible pathology. Conditions which indicate further ophthalmological examination include, but are not limited to, a substantial decrease in the uncorrected visual acuity, any decrease in best corrected visual acuity and/or the occurrence of eye disease, eye injury, or eye surgery.

1.2. At the initial assessment the examination should include**:**

(i) history;

(ii) visual acuities; near, intermediate and distant vision (uncorrected and with best optical correction if needed);

(iii) examination of the external eye, anatomy, media and fundoscopy;

(iv) ocular motility;

(v) binocular vision;

(vi) colour vision and visual fields;

(vii) **further examination on clinical indication.**

1.3. At the initial assessment the applicant should submit a copy of the recent spectacle prescription if visual correction is required to meet the visual requirements.

2. *Routine eye examination*

A routine eye examination should include:

(i) history;

(ii) visual acuities; near, intermediate and distant vision (uncorrected and with best optical correction if needed);

(iii) examination of the external eye, anatomy, media and fundoscopy;

(iv) further examination on clinical indication**.**

3. *Visual Acuity*

In an applicant with amblyopia, the visual acuity of the amblyopic eye shall be 6/18 (0,3) or better. The applicant may be assessed as fit**,** provided the visual acuity in the other eye is 6/6 (1,0) or better, with or without correction, and no significant pathology can be demonstrated.

4. *Substandard vision*

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

4.2. An applicant with substandard vision in **one** ~~1~~ eye may be assessed as fit subject to a satisfactory flight test if the better eye:

(i) achieves distant visual acuity of 6/6 (1.0), corrected or uncorrected;

(ii) achieves intermediate visual acuity of N14 and N5 for near;

(iii) has no significant pathology.

4.3. An applicant with a visual field defect may be considered as fit if the binocular visual field is normal and the underlying pathology is acceptable.

5. *Eye Surgery*

The assessment after eye surgery should include an ophthalmological examination.

5.1. After refractive surgery, a fit assessment may be considered**,** provided that there is stability of refraction, there are no postoperative complications and no increase in glare sensitivity.

5.2. After cataract, retinal or glaucoma surgery a fit assessment may be considered once recovery is complete.

6. *Correcting lenses*

Correcting lenses should permit the licence holder to meet the visual requirements at all distances.

AMC B to MED B.070

COLOUR VISION - class 2 medical certificates

1. At revalidation colour vision should be tested on clinical indication.

2. The Ishihara test (24 plate version) is considered passed if the first 15 plates, presented in a random order, are identified without error.

3. Those failing the Ishihara test should be examined either by:

(i) Anomaloscopy (Nagel or equivalent). This test is considered passed if the colour match is trichromatic and the matching range is 4 scale units or less; or by

(ii) Lantern testing with a Spectrolux, Beynes or Holmes-Wright lantern. This test is considered passed if the applicant passes without error a test with accepted lanterns.

AMC B to MED.B.075

OTORHINO-LARYNGOLOGY - class 2 medical certificates

1. *Hearing*

1.1 The applicant should understand correctly conversational speech when tested with each ear at a distance of 2 metres from and with the applicant's back turned towards the AME.

1.2. An applicant with hypoacusis should be assessed as fit if a speech discrimination test or functional cockpit hearing test demonstrates satisfactory hearing ability. **An applicant for an instrument rating with hypoacusis should be assessed in consultation with the licensing authority.**

1.3 If the hearing requirements can be met only with the use of hearing aids, the hearing aids should provide optimal hearing function, be well-tolerated and suitable for aviation purposes.

2. *Examination*

   An ear, nose and throat (ENT) examination should form part of all **initial,** revalidation and renewal examinations.

3. *Ear conditions*

   3.1. An applicant with an active pathological process, acute or chronic, of the internal or middle ear should be assessed as unfit until the condition has stabilised or there has been a full recovery.

   3.2. An applicant with an unhealed perforation or dysfunction of the tympanic membranes should be assessed as unfit. A single dry perforation of non-infectious origin and which does not interfere with the normal function of the ear may be considered for a fit assessment.

4. *Vestibular disturbance*

   An applicant with disturbance of vestibular function should be assessed as unfit pending full recovery.

5. *Sinus dysfunction*

   An applicant with any dysfunction of the sinuses should be assessed as unfit until there has been full recovery.

6. *Oral/–upper respiratory tract infections*

   A significant, acute or chronic infection of the oral cavity or upper respiratory tract is disqualifying until full recovery.

7. *Speech disorder*

   A significant disorder of speech or voice should be disqualifying.

8. *Air passage restrictions*

   An applicant with significant restriction of the nasal air passage on either side or significant malformation of the oral cavity or upper respiratory tract ~~should~~**may** be assessed as fit if ENT evaluation is satisfactory.

9. Eustachian tube function

An applicant with significant dysfunction of the Eustachian tubes may be assessed as fit in consultation with the licensing authority.

AMC B to MED.B.080

DERMATOLOGY - class 2 medical certificates

In cases where a dermatological condition is associated with a systemic illness, full consideration should be given to the underlying illness before a fit assessment.

AMC B to MED.B.085

ONCOLOGY- class 2 medical certificates

1. Applicants may be assessed as fit after treatment for malignant disease if:

   (i) there is no evidence of residual malignant disease after treatment;

   (ii) time appropriate to the type of tumour has elapsed since the end of treatment;

   (iii) the risk of in-flight incapacitation from a recurrence or metastasis is sufficiently low;

   (iv) there is no evidence of short or long-term sequelae from treatment that may adversely affect flight safety**;**

(v) special attention is paid to applicants who have received anthracyline chemotherapy;

(vi) arrangements for an oncological follow-up have been made for an appropriate period of time.

2. Applicants with pre-malignant conditions of the skin may be assessed as fit if treated or excised as necessary and there is a regular follow-up.

Subpart B

REQUIREMENTS FOR MEDICAL CERTIFICATES

Specific requirements for LAPL

AMC to MED.B.090

When a specialist evaluation is required under this section, the aero-medical assessment of the applicant should be performed by an AeMC, AME or GMP.

1. CARDIOVASCULAR SYSTEM

1.1. *Examination*

The applicants' pulse and blood pressure should be recorded at each examination.

1.2. *General*

(i) Cardiovascular risk factor assessment

An accumulation of risk factors (smoking, family history, lipid abnormalities, hypertension, etc.) requires cardiovascular evaluation.

(ii) Aortic aneurysm

Applicants with an aortic aneurysm may be assessed as fit subject to satisfactory cardiological evaluation and a regular follow-up.

(iii) Cardiac valvular abnormalities

Applicants with a cardiac murmur may be assessed as fit if the murmur is assessed as being of no pathological significance.

(iv) Valvular surgery

Applicants that have undergone cardiac valve replacement or repair may be assessed as fit if post-operative cardiac function and investigations are satisfactory. Anticoagulation, if needed, should be stable.

(v) Other cardiac disorders

Applicants with other cardiac disorders may be assessed as fit subject to satisfactory cardiological assessment.

Applicants with symptomatic hypertrophic cardiomyopathy should be assessed as unfit.

1.3. *Blood Pressure*

When the blood pressure consistently exceeds 160 mmHg systolic and/or 95 mmHg diastolic, with or without treatment, the applicant should be assessed as unfit.

The initiation of medication for the control of blood pressure should require a period of temporary suspension of the medical certificate to establish the absence of significant side effects.

1.4. *Coronary Artery Disease*

(i) Applicants with suspected myocardial ischemia should be investigated before a fit assessment can be considered.

(ii) Applicants with angina pectoris requiring medication for cardiac symptoms should be assessed as unfit.

(iii) After an ischaemic cardiac event, including myocardial infarction or revascularisation, applicants without symptoms should have reduced any vascular risk factors to an appropriate level. Medication, when used to control cardiac symptoms, is not acceptable. All applicants should be on acceptable secondary prevention treatment.

(iv) In cases under (i), (ii) and (iii) above, applicants who have had a satisfactory cardiological evaluation to include an exercise test or equivalent that is negative for ischaemia may be assessed as fit.

1.5. *Rhythm and conduction disturbances*

Applicants with a significant disturbance of cardiac rhythm or conduction should be assessed as unfit unless a cardiological evaluation concludes that the disturbance is not likely to interfere with the safe exercise of the privileges of the LAPL.

1.6. *Pre-excitation*

Applicants with ventricular pre-excitation may be assessed as fit subject to satisfactory cardiological evaluation. Applicants with ventricular pre-excitation associated with a significant arrhythmia should be assessed as unfit.

1.7. *Pacemaker*

A fit assessment may be considered subject to satisfactory cardiological evaluation.

2. RESPIRATORY SYSTEM

2.1. *Asthma and chronic obstructive airways disease*

Applicants with asthma or minor impairment of pulmonary function may be assessed as fit if the condition is considered stable with satisfactory pulmonary function and medication is compatible with flight safety. Systemic steroids are disqualifying.

2.2. *Sarcoidosis*

(i) Applicants with active sarcoidosis should be assessed as unfit. Investigation should be undertaken with respect to the possibility of systemic involvement. A fit assessment may be considered once the disease is inactive.

(ii) Applicants with cardiac sarcoidosis should be assessed as unfit.

2.3. *Pneumothorax*

(i) Applicants with spontaneous pneumothorax may be assessed as fit subject to satisfactory respiratory evaluation following full recovery from a single spontaneous pneumothorax or following recovery from surgical treatment for a recurrent pneumothorax.

(ii) Applicants with traumatic pneumothorax may be assessed as fit following full recovery.

2.4. *Thoracic surgery*

Applicants who have undergone major thoracic surgery may be assessed as fit following full recovery.

2.5. *Sleep apnoea syndrome*

Applicants with unsatisfactorily treated sleep apnoea syndrome should be assessed as unfit.

3. DIGESTIVE SYSTEM

3.1. *Gallstones*

Applicants with symptomatic gallstones should be assessed as unfit. A fit asessment may be considered following gallstone removal.

3.2. Inflammatory bowel disease

Applicants with an established diagnosis or history of chronic inflammatory bowel disease may be assessed as fit provided that the disease is stable and not likely to interfere with the safe exercise of the privileges of the licence.

3.3. Abdominal surgery

Applicants, who have undergone a surgical operation on the digestive tract or its adnexae, may be assessed as fit provided recovery is complete, the applicant is asymptomatic and there is only a minimal risk of secondary complication or recurrence.

3.4. Pancreatitis

Applicants with pancreatitis may be assessed as fit after satisfactory recovery.

4. METABOLIC AND ENDOCRINE SYSTEMS

4.1. *Metabolic, nutritional or endocrine dysfunction*

Applicants with metabolic, nutritional or endocrine dysfunction may be assessed as fit subject to demonstrated stability of the condition and satisfactory aero-medical evaluation.

4.2. *Obesity*

Obese applicants may be assessed as fit if the excess weight is not likely to interfere with the safe exercise of the licence.

4.3. *Thyroid dysfunction*

Applicants with thyroid disease may be assessed as fit once a stable euthyroid state is attained.

4.4. *Diabetes mellitus*

Applicants with diabetes mellitus not treated with insulin may be assessed as fit if blood sugar control has been achieved. The use of certain antidiabetic medications may be acceptable.

5. HAEMATOLOGY

Applicants with a haematological condition, such as:

(i) abnormal haemoglobin, including, but not limited to anaemia, polycythaemia or haemoglobinopathy;

(ii) coagulation, haemorragic or thrombotic disorder;

(iii) significant lymphatic enlargement;

(iv) acute or chronic leukaemia;

(v) enlargement of the spleen;

may be assessed as fit subject to satisfactory aero-medical evaluation.

6. GENITOURINARY SYSTEM

6.1. Applicants with a genitourinary disorder, such as:

(i) renal disease; or

(ii) one or more urinary calculi, or a history of renal colic;

may be assessed as fit subject to satisfactory renal/urological evaluation.

6.2. Applicants who have undergone a major surgical operation in the urinary apparatus may be assessed as fit following full recovery.

7. INFECTIOUS DISEASE

HIV infection

Applicants who are HIV positive may be assessed as fit if investigation provides no evidence of clinical disease.

8. OBSTETRICS AND GYNAECOLOGY

Pregnancy

Holders of LAPL medical certificate should only exercise the privileges of their licences until the 26th week of gestation under routine antenatal care.

Applicants who have undergone a major gynaecological operation may be assessed as fit after full recovery.

9. MUSCULOSKELETAL SYSTEM

Applicants should have satisfactory functional use of the musculoskeletal system to enable the safe exercise of the privileges of the licence.

10. PSYCHIATRY

10.1. Applicants with a mental or behavioural disorder due to alcohol or other substance use should be assessed as unfit pending recovery and freedom from substance use and subject to satisfactory psychiatric evaluation after treatment.

10.2. Applicants with an established history or clinical diagnosis of schizophrenia, schizotypal or delusional disorder should be assessed as unfit.

10.3. *Psychotropic substances*

Use or abuse of psychotropic substances likely to affect flight safety should be disqualifying. If a stable maintenance psychotropic medication is confirmed, a fit assessment with an appropriate limitation may be considered.

10.4. Applicants with a psychiatric condition, such as:

(i) mood disorder;

(ii) neurotic disorder;

(iii) personality disorder;

(iv) mental or behavioural disorder;

should undergo satisfactory psychiatric evaluation before a fit assessment can be made.

10.5. Applicants with a history of significant or repeated acts of deliberate self-harm should undergo satisfactory psychiatric or psychological evaluation before a fit assessment can be considered.

11. PSYCHOLOGY

Applicants with a psychological disorder may need to be referred for psychological opinion and advice.

12. NEUROLOGY

12.1.*Epilepsy and Seizures*

Applicants with an established diagnosis of and under treatment for epilepsy should be assessed as unfit.

Re-assessment after all treatment has been stopped for at least 5 years should include a neurological evaluation.

Applicants may be assessed as fit if:

(i) there is a history of a single afebrile epileptiform seizure, considered to have a very low risk of recurrence; and

(ii) there has been no recurrence after at least 5 years off treatment; or

(iii) a cause has been identified and treated and there is no evidence of continuing predisposition to epilepsy.

12.2. *Neurological disease*

(i) Applicants with any stationary or progressive disease of the nervous system which has caused or is likely to cause a significant disability should be assessed as unfit.

(ii) The AME or AeMC should assess applicants presenting with a condition as stated in (i), taking into account the privileges of the licence held and the risk involved. An OPL limitation may be appropriate if a fit assessment is made.

In case of minor functional loss associated with stationary disease, a fit assessment may be considered after full evaluation.

12.3. *Head injury*

Applicants with a head injury which was severe enough to cause loss of consciousness or is associated with penetrating brain injury may be assessed as fit if there has been a full recovery and the risk of epilepsy is sufficiently low.

12.4. *Spinal or peripheral nerve injury*

Applicants with a history or diagnosis of spinal or peripheral nerve injury may be assessed as fit if neurological review and musculoskeletal assessments are satisfactory.

13. VISUAL SYSTEM

13.1. 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 licence(s).

13.2. *Eye examination*

The examination should include visual acuities (near, intermediate and distant vision) and visual field.

13.3. *Visual acuity*

(i) The applicant's visual acuity with or without corrective lenses should be 6/9 binocularly and 6/12 in each eye.

(ii) Applicants who do not meet the visual acuity stated in (ii) should be assessed by an AME or AeMC, taking into account the privileges of the licence held and the risk involved.

(ii) An applicant should be able to read an N5 chart (or equivalent) at 30-50cms and an N14 chart (or equivalent) at 100cms, with correction if prescribed.

13.4. *Substandard vision*

Applicants with substandard vision in one eye may be assessed as fit if the better eye:

(i) achieves distant visual acuity of 6/6 (1.0), corrected or uncorrected;

(ii) achieves distant visual acuity less than 6/6 but not less than 6/9, after ophthalmological evaluation.

13.5. *Visual field defects*

Applicants with a visual field defect may be assessed as fit if the binocular visual field or monocular visual field is normal.

13.6. *Eye Surgery*

(i) After refractive surgery, a fit assessment may be considered, provided that there is stability of refraction, there are no postoperative complications and no significant increase in glare sensitivity.

(ii) After cataract, retinal or glaucoma surgery a fit assessment may be considered once recovery is complete.

13.7. *Correcting lenses*

Correcting lenses should permit the licence holder to meet the visual requirements at all distances.

14. COLOUR VISION

Applicants for a night rating should correctly identify 9 of the first 15 plates of the 24-plate edition of Ishihara pseudoisochromatic plates or should be colour safe.

15. OTORHINO-LARYNGOLOGY

15.1. *Hearing*

(i) Applicants should understand correctly conversational speech when tested at a distance of 2 metres from and with the applicant's back turned towards the examiner.

(ii) Applicants with hypoacusis shall demonstrate satisfactory functional hearing ability.

15.2. *Ear conditions*

Applicants for a LAPL medical certificate with:

(i) an active pathological process, acute or chronic, of the internal or middle ear;

(ii) unhealed perforation or dysfunction of the tympanic membrane(s);

(iii) disturbance of vestibular function;

(iv) significant restriction of the nasal passages;

(v) sinus dysfunction;

(vi) significant malformation or significant, acute or chronic infection of the oral cavity or upper respiratory tract; or

(vii) significant disorder of speech or voice;

should undergo further medical examination and assessment to establish that the condition does not interfere with the safe exercise of the privileges of the licence.

Subpart C

AERO-MEDICAL EXAMINERS (AMEs)

AMC to MED.C.010

Requirements for the issue of an AME certificate

1. Basic Training Course for AMEs

The Basic Training Course for AMEs should consist of 60 hours theoretical and practical training, including specific examination techniques.

2. The syllabus for the Basic Training Course should cover at least the following subjects:

- **Introduction to Aviation Medicine;**
- **Physics of Atmosphere and Space;**
- **Basic aeronautical knowledge;**
- **Aviation Physiology;**
- **Ophthalmology, including demonstration and practical;**
- **Otorhinolaryngology, including demonstration and practical;**
- **Cardiology and General Medicine;**
- **Neurology;**
- **Psychiatry in Aviation Medicine;**
- **Psychology;**
- **Dentistry;**
- **Accidents, Escape and Survival;**
- **Legislation, Rules and Regulations;**
- **Air Evacuation, including demonstration and practical;**
- **Medication and Flying.**

AMC to MED.C.015

Requirements for the extension of privileges

1. Advanced Training Course for AMEs

The Advanced Training Course for AMEs should consist of another 60 hours of theoretical and practical training, including specific examination techniques.

2. The syllabus for the Advanced Training Course should cover at least the following subjects:

- **Pilot working environment;**
- **Aerospace physiology, including demonstration and practical;**

- **Ophthalmology, including demonstration and practical;**
- **Otorhinolaryngology, including demonstration and practical;**
- **Cardiology and general medicine, including demonstration and practical;**
- **Neurology/Psychiatry, including demonstration and practical;**
- **Human Factors in aviation, including demonstration and practical;**
- **Tropical medicine;**
- **Hygiene including demonstration and practical;**
- **Space medicine.**

3. **Practical training in an AeMC should be under the guidance and supervision of the Head of the AeMC.**
4. **After the successful completion of the practical training, a report of demonstrated competency should be issued.**

GM to MED.C.030

Refresher training in aviation medicine

1. **During the period of authorisation an AME should attend 20 hours of refresher training.**
2. **A proportionate number of refresher training hours should be provided by, or conducted under the direct supervision of the competent authority or the Medical Assessor.**
3. **Attendance at scientific meetings, congresses and flight deck experience may be approved by the competent authority for a specified number of hours against the training obligations of the AME.**
4. **Scientific Meetings that should be accredited by the competent authority are:**

   4.1 International Academy of Aviation and Space Medicine Annual Congresses;

   4.2 Aerospace Medical Association Annual Scientific Meetings; and

   4.3 Other scientific meetings, as organised or approved by the Medical Assessor.
5. **Other refresher training may consist of:**

   5.1 Flight deck experience;

   5.2 Jump seat experience;

   5.3 Simulator experience; and

   5.4 Aircraft piloting.

~~Subpart D~~

~~GENERAL MEDICAL PRACTITIONERS (GMPS)~~

~~AMC to MED.D.001~~

~~Requirements for general medical practitioners~~

~~A speciality relevant to aero-medical practice in the sense of MED.D.001(a) should be considered as any speciality that gives competence to perform medical assessments in any of the systems described in Subpart B.~~

Subpart E

Specific Requirements for Medical Fitness of Cabin Crew

Section 1

General Requirements

AMC[1]1 MED.E.015 (b) Additional requirements for applicants for, and holders of, a cabin crew attestation in commercial air transport operations

MEDICAL ATTESTATION

The medical attestation to be provided to the applicants for, and holders of, a cabin crew attestation after completion of each aero-medical examination and assessment should comply with the following specifications:

STANDARD MEDICAL ATTESTATION FOR HOLDERS OF A CABIN CREW ATTESTATION (CCA)

(a) Content

(1) State where the medical attestation has been issued (I)

(2) N/A

(3) N/A

(4) Name of the CCA holder (IV)

(5) Nationality of holder (VI)

(6) Date and place of birth of holder: (dd/mm/yyyy) (XIV)

(7) Signature of holder (VII)

(8) Limitation(s) (XIII)

(9) Expiry date of the previous medical examination and assessment (IX),

(10) N/A

(11) Date of medical examination and assessment

(12) N/A

(13) N/A

(14) Date of issue and signature of the AME or of the occupational medical practitioner that issued the medical attestation (X)

(15) Seal or stamp (XI)

(b) N/A

(c) Language: in the national language(s) and in English

(d) The format to be used for medical attestations may be the same format as specified in Appendix IV to Annex I to Part-AR for medical certificates.

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[1] AMC/GM to Subpart E are presented here as the clean version of the resulting text (without tracked changes). Tracked changes to the NPA 2009-02e text can be seen in Column A of the related Comment Response Summary Table in CRD 2009-02e (CRD c.4).

AMC1 MED.E.015 (c) Additional requirements for applicants for, and holders of, a cabin crew attestation in commercial air transport operations

LIMITATIONS

When assessing whether the holder of a cabin crew attestation may be able to perform cabin crew duties safely if complying with one or more limitations, the following possible limitations should be considered:

1. a restriction to operate only if in addition to the minimum number of cabin crew required for the aircraft to be operated (MCL);
2. a restriction to specified aircraft type(s) (AOL) or to a specified type of operation (OOL);
3. a requirement to undergo the next aero-medical examination and assessment at an earlier date than required by MED.E.005 (b)(1), (b)(2) or (b)(3) as applicable (TML);
4. a requirement to undergo specific regular medical examination(s) (SIC);
5. a requirement for visual correction (VCL), or by means of corrective lenses only (CCL);
6. a requirement to use hearing aids (HAL); and
7. any special restriction as specified (SSL).

Section 2

Specific Requirements for Medical Assessment of Cabin Crew

AMC1 MED.E.025 Content of aero-medical examinations and assessments

Aero-medical examinations and assessments of cabin crew members should be conducted according to the following specific medical requirements.

CARDIOVASCULAR SYSTEM

1. *Examination*

   a. A standard 12-lead resting electrocardiogram (ECG) and report should be completed on clinical indication, and at the first examination after the age of 40 and then every two years after the age of 50.

   b. Extended cardiovascular assessment should be required when clinically indicated.

2. *Cardiovascular System – General*

   a. Cabin crew members should not possess any cardiovascular disorder which is likely to interfere with the safe exercise of their duties and responsibilities.

   b. Cabin crew members with any of the following conditions:

      i aneurysm of the thoracic or supra-renal abdominal aorta, before surgery;

      ii significant functional abnormality of any of the heart valves; or

      iii heart or heart/lung transplantation

      should be assessed as unfit.

c. Cabin crew members with an established diagnosis of one of the following conditions:

i. peripheral arterial disease before or after surgery;
ii. aneurysm of the abdominal aorta, before or after surgery;
iii. minor 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. a cardiovascular condition requiring systemic anticoagulant therapy;
viii. recurrent vasovagal syncope;
ix. arterial or venous thrombosis; or
x. pulmonary embolism

should be evaluated by a cardiologist before a fit assessment can be considered.

3. *Blood Pressure*

a. Blood pressure should be recorded at each examination.
b. The blood pressure should be within normal limits.
c. The initiation of medication for the control of blood pressure should require a period of temporary suspension of fitness to establish the absence of any significant side effects.

4. *Coronary Artery Disease*

a. Cabin crew members with:
i cardiac ischaemia;
ii symptomatic coronary artery disease; or
iii symptoms of coronary artery disease controlled by medication
should be assessed as unfit.

b. Cabin crew members who are asymptomatic after myocardial infarction or surgery for coronary artery disease should have fully recovered before a fit assessment can be considered.

5. *Rhythm/Conduction Disturbances*

a. Cabin crew members with any significant disturbance of cardiac conduction or rhythm should undergo cardiological evaluation before a fit assessment can be considered.
b. Cabin crew members with a history of:
i ablation therapy; or
ii pacemaker implantation
should undergo satisfactory cardiovascular evaluation before a fit assessment can be made.
c. Cabin crew members with:
i symptomatic sinoatrial disease;
ii complete atrioventricular block;
iii symptomatic QT prolongation;
iv an automatic implantable defibrillating system; or
v an anti-tachycardia pacemaker
should be assessed as unfit.

RESPIRATORY SYSTEM

1. Cabin crew members with significant impairment of pulmonary function should be assessed as unfit. A fit assessment may be considered once pulmonary function has recovered and is satisfactory.
2. Cabin crew members should be required to undertake pulmonary function tests on clinical indication.
3. Cabin crew members with a history or established diagnosis of:
   a. asthma;
   b. active inflammatory disease of the respiratory system;
   c. active sarcoidosis;
   d. pneumothorax;
   e. sleep apnoea syndrome; or
   f. major thoracic surgery

   should undergo respiratory evaluation with a satisfactory result before a fit assessment can be considered.
4. Cabin crew members who have undergone a pneumonectomy should be assessed as unfit.

DIGESTIVE SYSTEM

1. Cabin crew members should 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 their duties and responsibilities.
2. Cabin crew members 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, should be assessed as unfit.
3. Cabin crew members should be free from herniae that might give rise to incapacitating symptoms.
4. Cabin crew members with disorders of the gastro-intestinal system including:
   a. recurrent dyspeptic disorder requiring medication;
   b. pancreatitis;
   c. symptomatic gallstones;
   d. an established diagnosis or history of chronic inflammatory bowel disease; or
   e. 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

   may be assessed as fit after successful treatment or full recovery after surgery and subject to satisfactory evaluation.

METABOLIC AND ENDOCRINE SYSTEMS

1. Cabin crew members should not possess any functional or structural metabolic, nutritional or endocrine disorder which is likely to interfere with the safe exercise of their duties and responsibilities.
2. Cabin crew members with metabolic, nutritional or endocrine dysfunction may be assessed as fit, subject to demonstrated stability of the condition and satisfactory aero-medical evaluation.
3. *Diabetes mellitus*
   a. Cabin crew members with diabetes requiring insulin may be assessed as fit provided that it can be demonstrated that adequate blood sugar control has been achieved and subject to the appropriate limitations including, as a

minimum, a restriction to operate only in addition to the minimum required number of cabin crew.

b. Cabin crew members with diabetes mellitus not requiring insulin may be assessed as fit provided that it can be demonstrated that adequate blood sugar control has been achieved.

HAEMATOLOGY

1. Cabin crew members should not possess any haematological disease which is likely to interfere with the safe exercise of their duties and responsibilities.
2. Cabin crew members with a haematological condition, such as:
   a. abnormal haemoglobin, including, but not limited to anaemia, polycythaemia or haemoglobinopathy;
   b. coagulation, haemorrhagic or thrombotic disorder;
   c. significant lymphatic enlargement;
   d. acute or chronic leukaemia; or
   e. enlargement of the spleen

   may be assessed as fit subject to satisfactory aero-medical evaluation.

GENITOURINARY SYSTEM

1. Cabin crew members should not possess any functional or structural disease of the renal or genito-urinary system or its adnexa which is likely to interfere with the safe exercise of their duties and responsibilities.
2. Urine analysis should form part of every aero-medical examination. The urine should contain no abnormal element considered to be of pathological significance.
3. Cabin crew members 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, should be assessed as unfit.
4. Cabin crew members with a genitourinary disorder, such as:
   (a) renal disease; or
   (b) a history of renal colic due to one or more urinary calculi

   may be assessed as fit subject to satisfactory renal/urological evaluation.
5. Cabin crew members who have undergone a major surgical operation in the urinary apparatus involving a total or partial excision or a diversion of its organs should be assessed as unfit and be re-assessed after full recovery before a fit assessment can be made.

INFECTIOUS DISEASE

1. Cabin crew members should have no established medical history or clinical diagnosis of any infectious disease which is likely to interfere with the safe exercise of their duties and responsibilities.
2. Cabin crew members who are HIV positive may be assessed as fit subject to satisfactory aero-medical evaluation.

OBSTETRICS AND GYNAECOLOGY

1. Cabin crew members should not possess any functional or structural obstetric or gynaecological condition which is likely to interfere with the safe exercise of their duties and responsibilities.
2. Cabin crew members who have undergone a major gynaecological operation should be assessed as unfit until full recovery.
3. *Pregnancy*

   In the case of pregnancy,

   a. an obstetric evaluation should be conducted; and

   b. the AME, AeMC, or occupational medical practitioner, should:

      i. limit the validity period of the medical fitness as necessary on the basis of the result of the obstetric evaluation, but not later than the end of the 16th week of gestation, taking full account of the type of operations and aircraft the cabin crew member is to be assigned to; and

      ii. inform the cabin crew member that, after this point, she should not perform duties on an aircraft, and in the case of holders of a cabin crew attestation that the privileges of her attestation will be suspended, until satisfactory confirmation of full recovery following confinement or termination of the pregnancy.

MUSCULOSKELETAL SYSTEM

1 Cabin crew members should not possess any abnormality of the bones, joints, muscles or tendons, congenital or acquired, which is likely to interfere with the safe exercise of their duties and responsibilities.
2. A cabin crew member should have sufficient standing height, arm and leg length and muscular strength for the safe exercise of their duties and responsibilities.
3. A cabin crew member should have satisfactory functional use of the musculoskeletal system.

PSYCHIATRY

1. Cabin crew members should 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 their duties and responsibilities.
2. Cabin crew members with a mental or behavioural disorder due to alcohol or other substance use should be assessed as unfit pending recovery and freedom from substance use and subject to satisfactory psychiatric evaluation.
3. Cabin crew members with an established history or clinical diagnosis of schizophrenia, schizotypal or delusional disorder should be assessed as unfit.
4. Cabin crew members with a psychiatric condition such as:
   a. mood disorder;
   b. neurotic disorder;
   c. personality disorder; or
   d. mental or behavioural disorder

should undergo satisfactory psychiatric evaluation before a fit assessment can be made.

5. Cabin crew members with a history of a single or repeated acts of deliberate self-harm should be assessed as unfit. Cabin crew members should undergo satisfactory psychiatric evaluation before a fit assessment can be considered.

PSYCHOLOGY

Cabin crew members should have no established psychological deficiencies that are likely to interfere with the safe exercise of their duties and responsibilities. A psychological evaluation may be required as part of, or complementary to, a specialist psychiatric or neurological evaluation.

NEUROLOGY

1. Cabin crew members should have no established medical history or clinical diagnosis of any neurological condition that is likely to interfere with the safe exercise of their duties and responsibilities.
2. Cabin crew members with an established history or clinical diagnosis of:
   a. epilepsy; or
   b. recurring episodes of disturbance of consciousness of uncertain cause

   should be assessed as unfit.
3. Cabin crew members with an established history or clinical diagnosis of:
   a. epilepsy without recurrence after five years of age and without treatment for more than ten years;
   b. epileptiform EEG abnormalities and focal slow waves;
   c. progressive or non-progressive disease of the nervous system;
   d. a single episode of disturbance of consciousness of uncertain cause;
   e. loss of consciousness after head injury;
   f. penetrating brain injury; or
   g. spinal or peripheral nerve injury

   should undergo further evaluation before a fit assessment can be considered.

VISUAL SYSTEM

1. Cabin crew members should 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 their duties and responsibilities.
2. *Examination*
   a. a routine eye examination should form part of the initial and all further examinations; and
   b. an extended eye examination should be undertaken when clinically indicated.
3. Distant visual acuity, with or without correction, should be with both eyes 6/9 or better.
4. A cabin crew member should be able to read an N5 chart (or equivalent) at 30-50 cm, with correction if prescribed.

5. Cabin crew members should be required to have normal fields of vision and normal binocular function.
6. Cabin crew members who have undergone refractive surgery may be assessed as fit subject to satisfactory ophthalmic evaluation.
7. Cabin crew members with:
   a. astigmatism; or
   b. anisometropia

   may be assessed as fit subject to satisfactory evaluation.
8. Cabin crew members with diplopia should be assessed as unfit.
9. *Spectacles and contact lenses.* If satisfactory visual function is achieved only with the use of correction:
   a. spectacles or contact lenses should be readily available for immediate use whilst exercising the privileges of the applicable cabin crew attestation;
   b. the correction should provide optimal visual function and be well-tolerated; and
   c. Orthokeratologic lenses should not be used.

COLOUR VISION

Cabin crew members should have correctly identified nine of the first 15 plates of the 24-plate edition of Ishihara pseudoisochromatic plates. Alternatively, cabin crew members should demonstrate that they are colour safe.

OTORHINO-LARYNGOLOGY

1. Cabin crew members should 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 their duties and responsibilities.
2. Hearing should be satisfactory for the safe exercise of cabin crew duties and responsibilities. Cabin crew with hypocusis should demonstrate satisfactory functional hearing abilities
3. *Examination*
   a. An ear, nose and throat (ENT) examinations should form part of all examinations.
   b. Hearing should be tested at all examinations:
      i the cabin crew member should understand correctly conversational speech when tested with each ear at a distance of two meters from and with the cabin crew member's back turned towards the examiner;
      ii. notwithstanding i. above, hearing should be tested with pure tone audiometry at the initial examination and when clinically indicated; and
      iii when tested with pure tone audiometry, cabin crew members should not have at initial examination 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. 4. Cabin crew members with:
   a. an active pathological process, acute or chronic, of the internal or middle ear;
   b. unhealed perforation or dysfunction of the tympanic membrane(s);
   c. disturbance of vestibular function;
   d. significant restriction of the nasal passages;

e. sinus dysfunction;

f. significant malformation or significant, acute or chronic infection of the oral cavity or upper respiratory tract; or

g. significant disorder of speech or voice

should undergo further medical examination and assessment to establish that the condition does not interfere with the safe exercise of their duties and responsibilities.

DERMATOLOGY

Cabin crew members should have no established dermatological condition likely to interfere with the safe exercise of their duties and responsibilities.

ONCOLOGY

1. Cabin crew members should have no established primary or secondary malignant disease likely to interfere with the safe exercise of their duties and responsibilities.
2. After treatment for malignant disease, cabin crew members should undergo satisfactory oncological and aero-medical evaluation before a fit assessment can be made.
3. Cabin crew members with an established history or clinical diagnosis of intracerebral malignant tumour should be assessed as unfit.

GM1 MED.E.025 Content of aero-medical examinations and assessments

1. The purpose of aero-medical examination and assessment of cabin crew is to verify their medical fitness with particular regard to their physical and mental ability to:
   a. undergo the training required for cabin crew to acquire and maintain competence (e.g. actual fire-fighting, slide descending, using Protective Breathing Equipment (PBE) in a simulated smoke-filled environment);
   b. manipulate the aircraft systems and emergency equipment to be used by cabin crew (e.g. cabin systems, electronic panels, exits, slide rafts, fire-extinguishers), taking also into account the type of aircraft operated (e.g. narrow-bodied or wide-bodied);
   c. sustain the aircraft environment (e.g. altitude, pressure, re-circulated air, noise) and the type of operations (e.g. short-haul or long-haul); and
   d. perform the required duties and responsibilities efficiently during normal and abnormal operations, and with particular regard to those required in emergency situations and psychologically demanding circumstances (e.g. assistance to passengers in case of decompression; stress management, decision-making, crowd-control and effective crew coordination in case of safety hazard or emergency, management of disruptive passengers and of security threats).

2. During aero-medical examinations and assessments, the typical cabin crew duties listed below, particularly those under point 4 to be performed during abnormal operations and emergency situations, and their responsibilities to the travelling public, should be considered in order to identify:
   a. any physical and/or mental conditions that could be detrimental to the performance of the duties required from cabin crew; and
   b. which examination(s) or investigation(s) should be undergone to complete an appropriate aero-medical assessment.

3. List of typical cabin crew duties and responsibilities during normal operations:

3.1 Pre-passenger boarding

- Senior cabin crew member (SCCM) conducts pre-flight cabin crew safety briefing. This will include questions and/or scenario type questions relating to first-aid, security, dangerous goods and safety and emergency procedures, to ascertain cabin crew competence. It will also provide specific flight information that could affect flight safety, such as expected turbulence, special categories of passengers (SCPs) including passengers of reduced mobility (PRMs), obese persons and children (whether accompanied or not), infants, deportees or prisoners in custody and passengers with animals;
- VLTA will have a large number of cabin crew and are likely to include several SCCM's;
- Single cabin crew members will conduct a pre-flight briefing with the flight crew;
- Board aircraft and stow personal crew baggage securely in approved stowages;
- Carry out checks of cabin, emergency equipment, both fixed and portable, toilets, cabin crew and passenger seats and accessible cargo areas;
- Carry out galley and catering checks to ensure equipment such as trolleys and containers are securely stowed and that all equipment such as ovens, boilers, chillers, coffee-makers etc. are fully serviceable;
- Carry out security checks as required by the operator including overhead lockers, wardrobes, seat pockets, life jacket stowages, galleys, cabin and

toilets, rest areas and remote areas. Report any suspicious or unidentified items.

3.2. Passenger boarding

- Inspect and monitor passenger boarding routes (including integral steps, external steps, piers and jetties) both prior to and during boarding, to ensure that these remain safe;
- Monitor boarding to ensure no inadmissible passengers are permitted to board, including those who may be under the influence of alcohol and drugs;
- Observe passenger behaviour and be aware of any suspicious behaviour or items and report any security concerns immediately;
- Ensure passengers are advised of aircraft refuelling and that both cabin crew and passengers comply with operator and regulatory procedures to ensure exits are manned and exit routes remain clear;
- Assist with passenger boarding and seating to ensure seating allocation is appropriate, particularly with regard to SCPs. Ensure that seats adjacent to exits are occupied by able-bodied passengers (ABPs) and that passenger seating is in accordance with the aircraft mass and balance requirements;
- Monitor and assist with placing of passenger baggage in approved stowages to ensure this is securely and safely stowed;
- Distribute and monitor use of passenger safety equipment such as infant supplementary loop belts and child restraint devices;
- Give safety briefing to passengers seated at self-help exits;
- Monitor visible aircraft surfaces and advise flight crew of any surface contamination (such as ice or snow);
- Close doors and arm evacuation devices (if installed) in accordance with operator procedures.

3.3. Pre take-off

- Conduct safety demonstration, ensuring all passengers receive this in an appropriate format, with particular regard to SCP's;
- Carry out cabin secure check. This should include seat belts, seat positions, tables, armrests, footrests, in-flight entertainment systems (IFE), overhead lockers, passenger and crew baggage, exits areas, galleys and equipment including catering supplies, portable electronic devices (PEDs) including mobile phones, and toilets;
- Ensure flight crew are advised that the cabin is secure for take-off;
- Adjust cabin lighting as appropriate;
- Take up cabin crew station and fasten seat belt and harness securely;
- Remain alert to potentially hazardous situations.

3.4. Post take-off

- Remain seated and secured until advised in accordance with operator procedures;
- Ensure passengers remain seated until seat belt signs are switched off;
- Prepare for cabin service and ensure equipment remains stowed until safe to be removed from stowage.

3.5. Cruise

- Carry out cabin service ensuring that service equipment is used in a safe manner;
- Monitor passenger behaviour, particularly with regard to consumption of alcohol and security issues;

- In the event of turbulence, ensure passengers are notified, remain seated with seat belts fastened and ensure that results of checks are passed to flight crew;
- Comply with flight crew commands regarding suspension of cabin service during turbulence and necessity for cabin crew to also be seated in exceptional circumstances. In the absence of commands from the flight crew during turbulence, the senior cabin crew member (SCCM) may discontinue with service duties in order to prevent injury to cabin crew and passengers;
- Provide food and drink to flight crew members in accordance with operator security procedures regarding the locked flight crew compartment door (if installed);
- Carry out general surveillance of toilets, galleys, flight crew compartment, and cabin.

3.6. Approach and Landing

- When seat belt signs are illuminated, advise passengers and carry out cabin secure check as per prior to take off;
- Ensure flight crew are advised that the cabin is secure for landing;
- Adjust cabin lighting as appropriate;
- Take up cabin crew station and fasten seat belt and harness securely;
- Remain alert to potentially hazardous situations.

3.7. Disembarkation

- Remain seated and secured;
- Ensure passengers remain seated until aircraft stops and seat belt signs are turned off;
- Disarm evacuation devices if appropriate, in accordance with operator procedures;
- Adjust cabin lighting as appropriate;
- Ensure disembarkation equipment such as steps, piers and jetties, are in place prior to opening doors;
- Monitor disembarkation equipment to ensure this remains safe;
- Monitor disembarkation of passengers including SCPs;
- Conduct security check in accordance with operator procedures and report any suspicious items.

3.8. Turnarounds

- Maintain security of aircraft by checking the identification of anyone who boards;
- Carry out security checks as appropriate.

4. List of typical cabin crew duties and responsibilities during abnormal and emergency operations:

4.1. Planned emergency evacuation

- Flight crew will contact SCCM for briefing;
- SCCM will brief other cabin crew members;
- Cabin crew will brief passengers using equipment as appropriate including brace positions, seat belts, life jackets, and exits;
- Brief ABPs for self-help exits;
- Brief ABPs to assist at other exits;
- Cabin crew carry out cabin secure check;
- Ensure flight crew are advised that the cabin is secure;
- Adjust cabin lighting as appropriate;

- Cabin crew take up cabin crew station on command;
- On 'brace' command from flight crew, cabin crew will adopt brace position and advise passengers to brace;
- Once aircraft has stopped, await evacuation command from flight crew;
- Check outside conditions, operate exit and check serviceability of evacuation device/equipment. Deliver appropriate passenger commands;
- Launch life rafts if installed;
- Evacuate passengers as appropriate. Utilise exit by-pass and redirection techniques dependent on aircraft type;
- Instruct passengers to inflate life jackets if applicable;
- If no command from flight crew, cabin crew should assess the situation and take appropriate action;
- Remove any appropriate emergency equipment for use outside aircraft after evacuation;
- Cabin crew evacuate aircraft and take command of situation as appropriate. Inflate life jacket if applicable;
- Detach slide rafts and life rafts if installed, in a ditching situation;
- Post-evacuation duties including as appropriate assistance and first-aid to passengers/survivors, crowd control and activation of communication means towards rescue services.

4.2. Unplanned emergency evacuation

- Flight crew will give command to evacuate;
- Cabin crew follow procedures as for planned emergency evacuation;
- If no command from flight crew, cabin crew should assess the situation and take appropriate action.

4.3. Decompression

- Connect to nearest oxygen supply; if installed
- Sit down and secure self;
- Advise passengers to don oxygen masks if possible; if installed
- Wait for descent to be complete or announcement from flight crew;
- Contact flight crew to establish situation;
- Check passengers and carry out cabin secure;
- Administer oxygen to passengers if necessary.

4.4. Pilot incapacitation

- Respond to call from flight crew;
- Secure pilot in seat (or remove from flight deck);
- Administer first-aid as required;
- Remain on flight deck and assist with check list if required;
- In single cabin crew operations, assistance from passengers may be required.

4.5. Fire-fighting

- Locate source of fire;
- Identify type of fire;
- Apply appropriate procedures;
- Ensure personal protection including use of portable breathing equipment (PBE), gloves, and protective clothing;
- Select appropriate extinguisher or agent;
- Attack fire;
- Ensure flight crew advised;
- Communicate with other crew members;
- Monitor passengers;

- In single cabin crew operations, assistance from passengers may be required.

4.6 First-aid incidents and medical emergencies

- Assess situation;
- Treat symptoms;
- Utilise first-aid equipment as installed;
- Other crew members to provide back-up equipment as installed, including therapeutic oxygen, first-aid kits, emergency medical kits, and defibrillators;
- Ensure flight crew are advised;
- Request medical assistance, either from passengers or using aircraft radio link to medical centre service;
- Complete any necessary paperwork;
- If required, request medical assistance after landing;
- In single cabin crew operations, assistance from passengers may be required.

4.7. Disruptive passengers

- Advise passenger that behaviour is unacceptable;
- Advise passenger of instruction from the pilot-in-command that they must obey commands;
- Follow operator procedure for further action;
- Carry out restraint if such equipment is installed;
- In single cabin crew operations, assistance from passengers may be required.

4.8. Security threats – Bomb warning in-flight

- Adhere to operator specific procedures where possible;
- Receive briefing from flight crew;
- Carry out search;
- Ensure passengers identify all baggage;
- Isolate suspect article and protect;
- Move passengers and equipment from area;
- Move article to least-risk bomb location area if possible

4.9. Security threat – Hijack

- Adhere to operator specific procedures where possible;
- Maintain locked flight deck door (if installed);
- Communicate with flight crew;
- Control cabin and reassure passengers;
- Restrict alcohol;
- Comply with demands of hijackers unless safety of passengers and aircraft is threatened.