United Kingdom

Civil Aviation Authority

Official Record Series 9

UK - EU Transition - CAA Decisions

DECISION No. 1

Publication date: 22 December 2020

Decision enabling EASA Acceptable Means of Compliance, Guidance Material and Certification Specifications adopted by EASA to continue to be valid in the United Kingdom from Exit Day onwards unless and until amended or withdrawn by the CAA

Background

The European Union (Withdrawal) Act 2018 (the Act) retains European Union (EU) legislation in force on EU Exit Day into UK domestic law. This includes any EU regulation, EU decision and EU tertiary legislation.

However, EASA (as against EU) decisions in the form of Acceptable Means of Compliance (AMC), Guidance Material (GM) and Certification Specifications (CS) are not within the scope of the Act. AMC, GM and CS assist in implementation of the law and are frequently referred to as 'soft law'. The CAA intends to use its power to adopt AMC, GM and CS in the form of EASA AMC, GM and CS published on or before Exit Day.

Decision

The CAA, under Article 76(3) of Regulation (EU) 2018/1139[1], has decided:

1. The CAA, under Article 76(3) of Regulation (EU) 2018/1139, has decided that all EASA Acceptable Means of Compliance (AMC) published by EASA on or before Exit Day (whether pending or in force) are means by which the requirements in the applicable retained EU legislation can be met. However, entities may show compliance by other means. Furthermore, the CAA has also decided that any Alternative Means of Compliance (AltMoC) proposed and/or accepted by the CAA on or before Exit Day will continue to be means by which the requirements in the applicable retained EU legislation can be met. This paragraph will not apply to AMC set out in paragraph 4 below;

2. The CAA, under Article 76(3) of Regulation (EU) 2018/1139, has decided that all EASA Guidance Material (GM) published by EASA on or before Exit Day (whether pending or in force) is non-binding explanatory and interpretation material on how to achieve the requirements in the applicable retained EU legislation. This paragraph will not apply to GM set out in paragraph 4 below;

3. The CAA, under Article 76(3) of Regulation (EU) 2018/1139, has decided that all EASA Certification Specifications (CS) published by EASA on or before Exit Day (whether pending or in force) are non-binding technical standards that may be used to meet the requirements of the applicable retained EU legislation. The CAA has also decided that where the CAA has accepted that an Equivalent Level of Safety (ELOS) demonstrates

[1] UK (EU retained) law pursuant to the European Union (Withdrawal) Act 2018.

they meet the intent of the CS on or before Exit Day such ELOS may be used to meet the requirements of the applicable retained EU legislation.

4. The AMC and GM referred to in paragraph 1 and 2 that do not apply are:

   a. Regulation (EU) 1178/2011
      (i) AMC1 ARA.MED.135 (a) (b) & (c)
      (ii) GM1 ARA.MED.135 (b) & (c)
      (iii) All AMC for Annex IV Part-MED Subpart C - Requirements for Medical
      (iv) AMC1 MED.B.040 (d)
      (v) AMC2 MED.B.040 (b)
      (vi) AMC1 MED.B.075
      (vii) AMC2 MED.B.075
      (viii) AMC15 MED.B.095

   b. Regulation (EU) 2015/340
      (i) AMC1 ATCO.AR.F.005
      (ii) AMC1 ATCO.AR.F.020

5. The CAA, under Article 76(3) of Regulation (EU) 2018/1139[1], has decided to adopt as AMC and GM such AMC and GM attached as **Schedule 1** to this decision.

This decision will remain in force unless revoked or amended by the CAA.

Definitions
"Exit day" has the same meaning as in section 20 of the European Union (Withdrawal) Act 2018.

Rob Bishton
For the Civil Aviation Authority and the United Kingdom

Date of Decision: 22 December 2020

Date of Decision Coming into force: 1 January 2021 (or Exit Day whichever is the later)

[1] UK (EU retained) law pursuant to the European Union (Withdrawal) Act 2018.

Schedule 1

Includes the Alternative Means of Compliance documents referred to below:

United Kingdom Civil Aviation Authority

Safety and Airspace Regulation Group

Medical

Notification of Alternative Means of Compliance (AltMoC)

Regulation Reference: COMMISSION REGULATION (EU) No 1178/2011 Annex: IV Part MED

Subject: Colour Vision (MED.B.075)

Summary:

Further experience and evidence of the inconsistency of current methods of colour vision testing indicates that the UK AltMoC for colour vision requires updating.

The advanced methods of colour vision testing in the published AMC allow testing by unreliable means such as Lantern tests and the requirements for anomaloscope tests do not provide clarity of the interpretation of results. Therefore, the lantern tests have been deleted, the anomalosopy testing and interpretation methods have been updated, and the Colour Assessment and Diagnosis (CAD) Test, remains included as an acceptable test. The number of plates required to 'pass' the Ishihara screening test for LAPL applicants wishing to gain a night rating have also been amended

Current Implementing Rule and AMC

Implementing Rule: MED B.075 Colour vision

MED.B.075 Colour vision

(a) Applicants shall be required to demonstrate the ability to perceive readily the colours that are necessary for the safe performance of duties.

(b) *Examination*

(1) Applicants shall pass the Ishihara test for the initial issue of a medical certificate.

(2) Applicants who fail to pass in the Ishihara test shall undergo further colour perception testing to establish whether they are colour safe.

(c) In the case of Class 1 medical certificates, applicants shall have normal perception of colours or be colour safe. Applicants who fail further colour perception testing shall be assessed as unfit. Applicants for a Class 1 medical certificate shall be referred to the licensing authority.

(d) In the case of Class 2 medical certificates, when the applicant does not have satisfactory perception of colours, his/her flying privileges shall be limited to daytime only.

AMC1 MED B.075 Colour vision (Class 1)

(a) At revalidation, colour vision should be tested on clinical indication.

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

(c) Those failing the Ishihara test should be examined either by:

(1) 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

(2) 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.

AMC2 MED B.075 Colour vision (Class 2)

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

(b) Those failing the Ishihara test should be examined either by:

(1) 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

(2) 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.

(c) Colour vision should be tested on clinical indication at revalidation or renewal examinations.

AMC15 MED.B.095 Colour Vision (LAPL)

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.

UK Current Alternative Means of Compliance

Alternative AMC1 MED B.075 Colour vision

(a) At revalidation, colour vision should be tested on clinical indication.

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

(c) Those failing the Ishihara test should be examined either by:

(1) 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
(2) 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; or by
(3) Colour Assessment and Diagnosis (CAD) Test. This is considered passed if the threshold is less than 6 SU for deutan deficiency, or less than 12 SU for protan deficiency. A threshold greater than 2SU for tritan deficiency indicates an acquired cause which should be investigated.

Amendment to PART MED (agreed March 2018, for implementation later this year)

MED.B.075 Colour vision (As amended to be implemented 2018)

(a) Applicants shall be assessed as unfit, where they cannot demonstrate their ability to readily perceive the colours that are necessary for the safe exercise of the privileges of the licence.

(b) *Examination and assessment*

(1) Applicants shall be subjected to the Ishihara test for the initial issue of a medical certificate. Applicants who pass that test may be assessed as fit.

(2) For a class 1 medical certificate:

(i) Applicants who do not pass the Ishihara test shall be referred to the medical assessor of the licensing authority and shall undergo further colour perception testing to establish whether they are colour safe.

(ii) Applicants shall be normal trichromats or shall be colour safe.

(iii) Applicants who fail further colour perception testing shall be assessed as unfit.

(3) For a class 2 medical certificate:

(i) Applicants who do not pass the Ishihara test shall undergo further colour perception testing to establish whether they are colour safe.

(ii) Applicants who do not have satisfactory perception of colours shall be limited to exercising the privileges of the applicable licence in daytime only.

UK Alternative Means of Compliance (as amended March 2018)

Alternative AMC1 MED B.075 Colour vision (Class 1)

(a) At revalidation, colour vision should be tested on clinical indication.

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

(c) Those failing the Ishihara test should be examined ~~either~~ by:

(1) anomaloscopy (Nagel or equivalent). This test is considered passed if the colour match shows normal trichromacy ~~is trichromatic~~.i.e.a matching midpoint of 38-42 scale units and the matching range is 4 scale units or less; or by-

~~(2) 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; or by~~

(2) Colour Assessment and Diagnosis (CAD) Test. This is considered passed if the threshold is less than 6 SU for deutan deficiency, or less than 12 SU for protan deficiency. A threshold greater than 2SU for tritan deficiency indicates an acquired cause which should be investigated.

Alternative AMC2 MED B.075 Colour vision (Class 2)

(a) At revalidation, colour vision should be tested on clinical indication.

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

(c) Those failing the Ishihara test should be examined ~~either~~ by:

(1) anomaloscopy (Nagel or equivalent). This test is considered passed if the colour match shows normal trichromacy ~~is trichromatic~~.i.e.a matching midpoint of 38-42 scale units and the matching range is 4 scale units or less; or by-

~~(2) 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; or by~~

(2) Colour Assessment and Diagnosis (CAD) Test. This is considered passed if the threshold is less than 6 SU for deutan deficiency, or less than 12 SU for protan deficiency. A threshold greater than 2SU for tritan deficiency indicates an acquired cause which should be investigated.

AMC15 MED.B.095 Colour vision (LAPL)

a) Applicants for a night rating should correctly identify the first 15 plates of the Ishihara test (24 plate version), presented in a random order, are identified without error, or be colour safe.

(b) Those failing the Ishihara test should be examined ~~either~~ by:

(1) Anomaloscopy (Nagel or equivalent). This test is considered passed if the colour match shows normal trichromacy,.i.e. a matching midpoint of 38-42 scale units and the matching range is 4 scale units or less; or by-

(2) Colour Assessment and Diagnosis (CAD) Test. This is considered passed if the threshold is less than 6 SU for deutan deficiency, or less than 12 SU for protan deficiency. A threshold greater than 2SU for tritan deficiency indicates an acquired cause which should be investigated.

Assessment:

Assessed as meeting the Implementing Rule MED.B.075

There is a wide diversity of colour testing methods employed and standards used for the assessment of flight crew minimum colour vision requirements throughout the world, including amongst European States.

Ishihara (IH) tests

Colour vision requirements and assessment of 'colour safety' based on Ishihara (IH) tests have the following problems:

1) Inconsistent application of the manufacturers' instructions / CIE protocols for the conduct of the tests by the test operator/institution.
2) Variation in the lighting conditions used to view the test plates (illuminant spectral power distribution and illuminance level).
3) Use of different test plate editions that are by no means identical, and the current availability of very inexpensive 'Ishihara' test plates sets on the web that may not be genuine.

4) The possible use of other cues such as the recognition of vertically and/or horizontally arranged dot patterns, or the learning of the order of plates when the presentation sequence is not randomised.
5) A large proportion of normal trichromats fail the IH plates (various editions) when the protocol requires zero errors for a Pass.
6) A large proportion of applicants with congenital colour deficiency (some with severe loss of RG colour vision) that pass with 3 or fewer errors on the 38 plates edition. There is little or no correlation between the applicant's severity of colour vision loss and the number of failed IH test plates.
7) When more than three errors are allowed as a pass, some applicants with congenital colour deficiency that pass can have severe loss of colour vision. For example, having a pass standard (e.g. for LAPL) that requires fewer plates to be correctly identified (LAPL 9 of the 15 plates) allows applicants with severe colour deficiency to pass.

Lantern Tests

Colour vision requirements and assessment of 'colour safety' based on lantern tests have the following problems

1) Inconsistent application of the manufacturers' instructions for the conduct of the tests by the test operator/institution.
2) Maintenance and calibration is usually not carried out. Old lanterns are difficult to service and many types are no longer manufactured.
3) Applicants can learn the order of the lights presented and use other cues to correctly name the lights, particularly if the starting point and order of presentation are not varied.
4) The variability in outcome on repeated lantern test protocols is high which results in many false positives and negatives
5) Lanterns do not diagnose or quantify either the type or the severity of colour vision loss
6) A significant proportion of deutan subjects (in particular) pass lantern tests based on red, green and white lights without guaranteeing minimum colour deficiency.
7) Different organisations/states performing the tests and interpreting the results have different definitions of what constitutes a pass.
8) Many lanterns were not specifically designed for aviation purposes so the colour of the lights used and the intensity do not necessarily represent a proper representation of the coloured signals/ lights used in aviation

Anomaloscope Tests

Colour vision requirements and assessment of 'colour safety' based on anomaloscope tests (i.e., dichromatic, RG colour matching tests) have the following problems

1) Inconsistent application of the manufacturers' instructions for the conduct of the tests by the test operator/institution.
2) Calibration and proper maintenance cannot be demonstrated and 'normal' match parameters are usually needed when the light source is replaced, etc.
3) There can be substantial differences in testing between anomaloscope type and models, such as the use of white, interstimulus adapting fields.
4) Although anomaloscopes (which employ a dichromatic Rayleigh match) distinguish between the type of RG colour deficiency (e.g., protan- vs deutan-like deficiency) the severity of colour vision loss and whether the applicant is 'colour safe' cannot be demonstrated.
5) Different organisations/states performing the tests and interpreting the results have different definitions of what constitutes a pass. This particularly relates to interpretation of the matching midpoint and the size of the matching range. Applicants with a 'normal' matching mid-point as tested might have a large range, and those with a very abnormal midpoint might have a small matching range, often well within the mean matching range measured in normal trichromats.
6) Some subjects exhibit 'extreme' anomalous matches that spread over the midpoint measured in normal trichromats. These subjects cannot therefore be diagnosed as either deutan- or protan-like.
7) A small proportion of subjects exhibit normal Rayleigh matches, but demonstrate significant loss of RG chromatic sensitivity in other tests. The opposite is also the case when subjects with heavily abnormal anomaloscope midpoints exhibit completely normal RG chromatic sensitivity.
8) Anomaloscopes were designed for clinical diagnostic reasons and not specifically designed for use in aviation to determine whether an individual is colour safe of not. They can determine whether subjects are normal trichromats with a normal matching mid-point and normal matching range

The Colour Assessment and Diagnosis (CAD) Test

The Colour Assessment and Diagnosis (CAD) Test provides an accurate and reproducible assessment of an applicant's class of colour vision and severity of RG and YB colour vison loss. The latter can be used to set Pass / Fail limits that do not discriminate against applicants with mild to moderate RG colour deficiency who have been shown to carry out the safety-critical, colour related tasks as well as normal trichromats.

The CAD test cannot be learnt and there are no cues the applicant could use to pass it. The results reflect only the RG and the YB sensitivity of the eye. The results are expressed in Standard Normal CAD units (i.e., RG = 1.0 and YB = 1.0) which represent the median RG and YB colour signal strengths for young, healthy normal trichromats. A threshold of 6 units means that the applicant requires 6 times greater colour signal strength than the standard CAD observer.

Upper limits that describe the binocular and the monocular performance of normal trichromats as a function of age (~ 8 to 85 yrs of age) are incorporated in the test. These are used to screen reliably for normal trichromatic colour vision and also make it possible to detect the presence of retinal or / and systemic diseases that affect vision. The CAD test can also detect acquired deficiencies, even when acquired loss is present in applicants with congenital RG colour deficiency.

The CAD test is supplied with an accurate photometer and test programs to check the calibration of the stimulus display and to recalibrate automatically when necessary. All calibrations are recorded automatically and a log is kept and available for auditing purposes.

The relevant research papers are:

1) CAA Paper 2006/04 Part 1: Minimum Colour Vision Requirements for Flight Crew: The Use of Colour Signals and the Assessment of Colour Vision Requirements in Aviation http://www.caa.co.uk/application.aspx?catid=33&pagetype=65&appid=11&mode=detail&id=2407
2) CAA Paper 2006/04 Part 2: Minimum Colour Vision requirements for Professional Flight Crew: Task Analysis http://www.caa.co.uk/application.aspx?catid=33&pagetype=65&appid=11&mode=detail&id=2408
3) CAA Paper 2009/04: Minimum Colour Vision Requirements for Professional Flight Crew. Recommendations for new colour vision standard http://www.caa.co.uk/application.aspx?catid=33&pagetype=65&appid=11&mode=detail&id=3560
4) Barbur JL, Rodriguez-Carmona M, Harlow JA, Mancuso K, Neitz J, Neitz M. A study of unusual Rayleigh matches in deutan deficiency. Vis Neurosci. 2008 May-Jun;25(3):507-16.
5) Squire TJ, Rodriguez-Carmona M, Evans Adb, Barbur Jl. *Color Vision Tests For Aviation: Comparison Of The Anomaloscope And Three Lantern Types.* . Aviat Space Environ Med 2005; 76:421–9.
6) Detailed Interpretation Of The Nagel Anomaloscope. http://neuronresearch.net/vision/files/newnagel.htm accessed on 09/03/2018
7) Cole BL, Vingrys AJ. Who fails lantern tests? Doc Ophthalmol. 1983 May 1;55(3):157-75.
8) Watson DB. Lack of international uniformity in assessing color vision deficiency in professional pilots. Aviat Space Environ Med. 2014 Feb;85(2):148-59.
9) Barbur JL, Rodriguez-Carmona M. 'Color vision changes in normal aging'. In: A.J. E, M.D. F, A. F, eds. Handbook of Color Psychology. 1. Cambridge, UK: Cambridge University Press; 2015. p. 180-96.
9) Barbur, JL and Rodriguez-Carmona, M. Colour vision requirements in visually demanding occupations Dr Medical Bulleting. 2017,1-27.
10) Hovis, JK. Repeatability of the Holmes-Wright Type A Lantern Color Vision Test. Aviat. Space Environ. Med 2008; 79 1028-33.

Approved for submission to the Agency by: *Dr Sally Evans, Chief Medical Officer, UK CAA*

Signature: Sally Evans

Date: 21/03/2018

UK AltMOC Commission Regulation (EU) No 1178/2011 Annex IV (Part-MED) Subpart C Requirements for Medical Fitness of Cabin Crew

Requirements for medical fitness of cabin crew

Section 1

General requirements

AMC1 MED.C.005 Aero-medical assessments

(a) When conducting aero-medical examination and/or assessments of cabin crew, their medical fitness should be assessed with particular regard to their physical and mental ability to:

(1) 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, providing first aid;

(2) manipulate the aircraft systems and emergency equipment to be used by cabin crew, e.g. cabin management systems, doors/exits, escape devices, fire extinguishers, taking also into account the type of aircraft operated e.g. narrow-bodied or wide-bodied, single/multi-deck, single/multi-crew operation;

(3) continuously sustain the aircraft environment whilst performing duties, e.g. altitude, pressure, re-circulated air, noise; and the type of operations such as short/medium/long/ultra long -haul; and

(4) perform the required duties and responsibilities efficiently during normal and abnormal operations, and in emergency situations and psychologically demanding circumstances e.g. assistance to crew members and passengers in case of decompression; stress management, decision-making, crowd control and effective crew coordination, management of disruptive passengers and of security threats. When relevant, operating as single cabin crew should also be taken into account when assessing the medical fitness of cabin crew.

Section 2

Requirements for aero-medical assessment of cabin crew

UK AltMOC1 MED.C.025 Content of aero-medical assessments

Aero-medical examinations and/or assessments of cabin crew members should be conducted according to the specific medical requirements in UK AltMOC2 to AMC18 MED.C.025.

UK AltMOC2 MED.C.025 Cardiovascular system

(a) Examination

(1) A standard 12-lead resting electrocardiogram (ECG) and report should be completed on clinical indication.

(2) Extended cardiovascular assessment should be required when clinically indicated.

(b) Cardiovascular system - general

(1) 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;

(iii) heart or heart/lung transplantation

should be assessed as unfit. A fit assessment may be considered following satisfactory treatment and recovery.

(2) 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.

(c) Blood pressure

Blood pressure should be recorded at the initial examination.

(1) The blood pressure should be within normal limits.

(2) 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.

(d) Coronary artery disease

(1) Cabin crew members with:

(i) cardiac ischaemia;

(ii) symptomatic coronary artery disease

should be assessed as unfit. A fit assessment may be considered following satisfactory treatment and recovery.

(2) 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.

(e) Rhythm/conduction disturbances

(1) Cabin crew members with any significant disturbance of cardiac conduction or rhythm should undergo cardiological evaluation before a fit assessment can be considered.

(2) 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.

(3) Cabin crew members with:

(i) symptomatic sinoatrial disease;

(ii) complete atrioventricular block;

(iii) symptomatic QT prolongation;

(iv) an automatic implantable defibrillating system; or

(v) a ventricular anti-tachycardia pacemaker

should be assessed as unfit.

UK AltMOC3 MED.C.025 Respiratory system

(a) 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.

(b) Cabin crew members should be required to undergo pulmonary function tests on clinical indication.

(c) Cabin crew members with a history or established diagnosis of:

(1) asthma;

(2) active inflammatory disease of the respiratory system;

(3) active sarcoidosis;

(4) pneumothorax;

(5) sleep apnoea syndrome/sleep disorder; or

(6) major thoracic surgery

should undergo respiratory evaluation with a satisfactory result before a fit assessment can be considered.

UK AltMOC4 MED.C.025 Digestive system

(a) 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.

A fit assessment may be considered following satisfactory treatment and recovery.

(b) Cabin crew members should be free from herniae that might give rise to incapacitating symptoms.

(c) Cabin crew members with disorders of the gastro-intestinal system, including:

(1) recurrent dyspeptic disorder requiring medication;

(2) pancreatitis;

(3) symptomatic gallstones;

(4) an established diagnosis or history of chronic inflammatory bowel disease; or

(5) after surgical operation on the digestive tract or its adnexa, including surgery involving total or partial excision or a diversion of any of these organs

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

UK AltMOC5 MED.C.025 Metabolic and endocrine systems

(a) 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.

(b) 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.

(c) Diabetes mellitus

(1) Cabin crew members with diabetes mellitus requiring insulin may be assessed as fit if it can be demonstrated that adequate blood sugar control has been achieved and hypoglycaemia awareness is established and maintained. Limitations should be imposed as appropriate.

(2) Cabin crew members with diabetes mellitus not requiring insulin may be assessed as fit if it can be demonstrated that adequate blood sugar control has been achieved and hypoglycaemia awareness, if applicable considering the medication, is achieved.

AMC6 MED.C.025 Haematology

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.

UK AltMOC7 MED.C.025 Genitourinary system

(a) Urine analysis should form part of the initial aero-medical examination. The urine should not contain any abnormal element(s) considered to be of pathological significance.

(b) Cabin crew members with any sequelae of disease or surgical procedures on the kidneys or the urinary tract, in particular any obstruction due to stricture or compression likely to cause incapacitation, should be assessed as unfit.

A fit assessment may be considered following satisfactory treatment and recovery.

(c) Cabin crew members with a genitourinary disorder, such as:

(i) renal disease; or

(ii) a history of renal colic due to one or more urinary calculi

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

(d) 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.

AMC8 MED.C.025 Infectious disease

Cabin crew members who are HIV positive may be assessed as fit if investigation provides no evidence of clinical disease and subject to satisfactory aero-medical evaluation.

UK AltMOC9 MED.C.025 Obstetrics and gynaecology

(a) Cabin crew members who have undergone a major gynaecological operation should be assessed as unfit until full recovery.

(b) Pregnancy

A pregnant cabin crew member should be assessed as unfit when they are no longer able to safely carry out their duties.

AMC10 MED.C.025 Musculoskeletal system

(a) 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.

(b) A cabin crew member should have satisfactory functional use of the musculoskeletal system.

UK AltMOC11 MED.C.025 Psychiatry

(a) Cabin crew members with a mental or behavioural disorder due to alcohol or other problematic substance use should be assessed as unfit pending recovery and freedom from problematic substance use and subject to satisfactory psychiatric evaluation.

(b) Cabin crew members with an established history or clinical diagnosis of schizophrenia, schizotypal or delusional disorder should be assessed as unfit.

(c) Cabin crew members with a psychiatric condition such as:

(1) mood disorder;

(2) neurotic disorder;

(3) personality disorder; or

(4) mental or behavioural disorder

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

(d) 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 aeromedical evaluation including reports from their treating clinician(s) before a fit assessment can be considered.

UK AltMOC12 MED.C.025 Psychology

Cabin crew members with an established diagnosis of a psychological disorder may be assessed as fit subject to satisfactory aero-medical evaluation. .

AUK AltMOC13 MED.C.025 Neurology

(a) Cabin crew members with an established history or clinical diagnosis of:

(1) Epilepsy; or

(2) recurring episodes of disturbance of consciousness of uncertain cause

should be assessed as unfit. A fit assessment may be considered following satisfactory evaluation.

(b) Cabin crew members with an established history or clinical diagnosis of epileptiform EEG abnormalities and focal slow waves may be assessed as fit subject to satisfactory aero-medical evaluation.

(c) Cabin crew members with an established history or clinical diagnosis of:

(1) progressive or non-progressive disease of the nervous system;

(2) a single episode of disturbance of consciousness of uncertain cause;

(3) loss of consciousness after head injury;

(4) penetrating brain injury; or

(5) spinal or peripheral nerve injury

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

UK AltMOC14 MED.C.025 Visual system

(a) Examination

(1) a routine eye examination should form part of the initial examination; and

(2) an extended eye examination should be undertaken when clinically indicated.

(b) Distant visual acuity with both eyes, with or without correction, should be 6/9 or better.

(c) A cabin crew member should be able to read an N5 chart (or equivalent) at 30–50 cm, with or without correction.

(d) Cabin crew members should have normal fields of vision.

(e) Cabin crew members who have undergone refractive surgery may be assessed as fit subject to satisfactory ophthalmic evaluation.

(f) Cabin crew members with diplopia should be assessed as unfit.

(g) Spectacles and contact lenses:

If satisfactory visual function is achieved only with the use of correction:

(1) In the case of myopia or hypermetropia, spectacles or contact lenses should be worn whilst on duty;

(2) in the case of presbyopia, spectacles or contact lenses should be readily available for immediate use whilst on duty;

(3) the correction should provide optimal visual function and be well tolerated;

(4) orthokeratologic lenses should not be used.

AMC15 MED.C.025 Colour vision

Cabin crew members should be able to correctly identify 9 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.

UK AltMOC16 MED.C.025 Otorhino-laryngology

(a) Hearing should be satisfactory for the safe exercise of cabin crew duties and responsibilities.

(b) Examination

(1) An ear, nose and throat (ENT) examination should form part of the initial examination.

(2) Hearing: the cabin crew member should understand correctly conversational speech when tested with each ear at a distance of 2 meters from and with the cabin crew member's back turned towards the examiner. Cabin crew with hypoacusis should be investigated and the aeromedical assessment should include demonstration of satisfactory functional hearing abilities.

(c) Cabin crew members with:

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

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

(3) disturbance of vestibular function;

(4) significant restriction of the nasal passages;

(5) sinus dysfunction;

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

(7) 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.

AMC17 MED.C.025 Dermatology

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 may be made.

AMC18 MED.C.025 Oncology

(a) After treatment for malignant disease, cabin crew members should undergo satisfactory oncological and aero-medical evaluation before a fit assessment may be considered.

(b) Cabin crew members with an established history or clinical diagnosis of intra-cerebral malignant tumour should be assessed as unfit. Considering the histology of the tumour, a fit assessment may be considered after successful treatment and full recovery.