European Aviation Safety Agency – Rulemaking Directorate

Notice of Proposed Amendment 2013-15

Update of Part-MED (Annex IV to Commission Regulation (EU) No 1178/2011) and Update of Acceptable Means of Compliance and Guidance Material to Part-MED (ED Decision 2011/015/R)

RMT.0287 AND RMT.0288 (former task number MED.001(a) and (b)) — 26/07/2013

EXECUTIVE SUMMARY

Annex IV (Part-MED) to Commission Regulation (EU) No 1178/2011 related to Aircrew (hereinafter referred to as 'Regulation Aircrew') contains rules for medical fitness of pilots and cabin crew, as well as provisions for certification of aero-medical examiners and the privileges of general medical practitioners and occupational health medical practitioners. The associated acceptable means of compliance and guidance material is provided in Decision 2011/015/R of the Executive Director of the European Aviation Safety Agency.

During the drafting phase for the Part-MED requirements that are presently in place, the underlying principle was to transpose the requirements from JAR-FCL 3 (Medical) into European law in order to facilitate implementation of Part-MED. The follow-up rulemaking task RMT.0287 and RMT.0288 was already envisaged at that time with the specific objective to review and amend the initial version, to correct editorial errors, to cover eventual gaps, and also to ensure consistency as promised during the discussions on Part-MED in the EASA Committee during the adoption phase of Regulation Aircrew. This NPA was also to address eventual implementation and transitional problems; however, none was detected for Part-MED, as opposed to Annex VI Part-ARA.

Given the specific objectives outlined above, no major changes to Part-MED have been introduced in this NPA. This will be handled in the upcoming rulemaking task for RMT.0424 and RMT.0603 where individual organ systems will be reviewed in smaller packages to keep the medical requirements up to date. However, new guidance material has been included e.g. on medication covered under the paragraph 'Decrease of medical fitness', on the learning objectives for aero-medical examiner training courses and, on request of Member States, on the format of the cabin crew medical report.

This NPA proposes:

- a draft Opinion amending Annex IV (Part-MED) to Commission Regulation (EU) No 1178/2011 (RMT.0287); and
- a draft Decision amending ED Decision 2011/015/R (RMT.0288).

Applicability	
Affected regulations and decisions:	Part-MED; and AMC/GM Part-MED
Affected stakeholders:	Flight Crew, Cabin Crew, Aero-Medical Examiners, Aero-Medical Centres, General Medical Practitioners, Occupational Health Medical Practitioners, Competent Authorities
Driver/origin:	Legal obligation
Reference:	Not applicable

Process map	
Concept paper:	No
Terms of Reference:	09 Nov 2011
Rulemaking group:	Yes
RIA type:	None
Technical consultation during NPA drafting:	Yes
Duration of NPA consultation:	3 months
Review group:	Yes
Focussed consultation:	TBD depending on comments
Publication date of the Opinion:	2014/Q2
Publication date of the Decision:	2015/Q1

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1 Procedural information

1.1 The rule development procedure

The European Aviation Safety Agency (hereinafter referred to as the 'Agency') has developed this Notice of Proposed Amendment (NPA) in line with Regulation (EC) No 216/2008[1] (hereinafter referred to as the 'Basic Regulation') and the Rulemaking Procedure[2].

This rulemaking activity is included in the Agency's Rulemaking Programme 2013-2016 as rulemaking tasks RMT.0287 and RMT.0288 (http://easa.europa.eu/rulemaking/annual-programme-and-planning.php).

The text of this NPA has been developed by the Agency, based on the input of the Rulemaking Group RMT.0287 and RMT.0288. It is hereby submitted for consultation of all interested parties[3].

The process map on the title page contains the major milestones of this rulemaking activity to date and provides an outlook of the timescale of the next steps.

1.2 The structure of this NPA and related documents

Chapter 1 of this NPA contains the procedural information related to this task. Chapter 2 (Explanatory Note) explains the core technical content. Chapter 3 contains the proposals to amend the requirements.

1.3 How to comment on this NPA

Please submit your comments using the automated **Comment-Response Tool (CRT)** available at http://hub.easa.europa.eu/crt/[4].

The deadline for submission of comments is **28 October 2013**.

1.4 The next steps in the procedure

Following the closing of the NPA consultation, the Agency will review all comments with involvement of a dedicated Review Group.

The outcome of the NPA consultation will be reflected in a Comment-Response Document (CRD).

The Agency will consider publishing the CRD with the Opinion depending on the comments received during the public consultation phase of the NPA.

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1 Regulation (EC) No 216/2008 of the European Parliament and the Council of 20 February 2008 on common rules in the field of civil aviation and establishing a European Aviation Safety Agency, and repealing Council Directive 91/670/EEC, Regulation (EC) No 1592/2002 and Directive 2004/36/EC (OJ L 79, 19.3.2008, p. 1), as last amended by Commission Regulation (EU) No 6/2013 of 8 January 2013 (OJ L 4, 9.1.2013, p. 34).

2 The Agency is bound to follow a structured rulemaking process as required by Article 52(1) of the Basic Regulation. Such process has been adopted by the Agency's Management Board and is referred to as the 'Rulemaking Procedure'. See Management Board Decision concerning the procedure to be applied by the Agency for the issuing of Opinions, Certification Specifications and Guidance Material (Rulemaking Procedure), EASA MB Decision No 01-2012 of 13 March 2012.

3 In accordance with Article 52 of the Basic Regulation and Articles 5(3) and 6 of the Rulemaking Procedure.

4 In case of technical problems, please contact the CRT webmaster (crt@easa.europa.eu).

Opinions published by the Agency contain proposed changes to European regulations and are addressed to the European Commission as a technical basis for legislative proposals.

Decisions containing Acceptable Means of Compliance (AMC) and Guidance Material (GM) are published by the Agency once the related Implementing Rules are adopted.

2 Explanatory Note

2.1 General

2.1.1 The task. Annex IV (Part-MED) to Regulation Aircrew[5] contains rules for medical fitness of pilots and cabin crew, as well as provisions for certification of aero-medical examiners (AMEs) and the privileges of general medical practitioners (GMPs) and occupational health medical practitioners (OHMPs). The associated AMC and GM are provided in ED Decision 2011/015/R[6].

2.1.2 During the drafting phase for these requirements, a decision was made to transpose the requirements from JAR-FCL 3 into European law and to update and amend them in this follow-up rulemaking task RMT.0287 and RMT.0288 together with corrections to eventual editorial errors and covering gaps that were identified.

2.1.3 Group composition. The group composition included chief medical officers from competent authorities (FR, BG, SE, DE, BE) a legal expert from CAA NL, experts from ESAM[7], ECA[8], IATA[9], and EAS[10]. The specialist nominated by IAOPA[11] was invited to join as a member of the drafting group but had to step back for urgent business reasons. A member from FFA[12] joined the group in October 2012 to add expertise regarding medical certification of pilots with a physical impairment.

2.1.4 Working method. The Terms of Reference (ToRs) for this RMT were published on 9 November 2011 and the rulemaking group met for a kick-off meeting in January 2012, followed by six subsequent meetings up until March 2013. During the kick-off meeting, each group member took the responsibility to review individually assigned chapter(s) of Part-MED and to propose amendments if considered necessary. During the rulemaking group meetings, the outcome of this work was discussed and the resultant NPA text was agreed to.

2.1.5 Cabin crew implementing rules. With regard to medical fitness of cabin crew, the original proposals in NPA 2009-02e for Subpart C were changed considerably during the consultation process and during the comitology procedure. Therefore, the final text is considered to be carefully adapted, so until new elements identify a need for revision, the implementing rules (IR) in Subpart C as published are considered to be mature with no further changes needed through this RMT. However, an editorial review and update of the AMC and GM to Subpart C was considered necessary and has therefore been included in the scope of this RMT.

2.1.6 Part-ARA and Part-ORA. Annexes VI and VII to Regulation Aircrew contain rules for authorities (Part-ARA) and organisations (Part-ORA), some of which are closely linked to

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5 Commission Regulation (EU) No 1178/2011 of 3 November 2011 laying down technical requirements and administrative procedures related to civil aviation aircrew pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council. (OJ L 311, 25.11.2011, p.1). Regulation as last amended by Commission Regulation (EU) No 290/2012 of 30 March 2012 (OJ L 100, 5.4.2012, p.1).

6 Decision 2011/015/R of the Executive Director of the European Aviation Safety Agency of 15 December 2011 on Acceptable Means of Compliance and Guidance Material to Commission Regulation (EU) No 1178/2011 of 3 November 2011 laying down technical requirements and administrative procedures related to civil aviation aircrew pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council.

7 European Society of Aerospace Medicine

8 European Cockpit Association

9 International Aviation Transport Association

10 Europe Air Sports

11 International Council of Aircraft Owner and Pilot Associations

12 Fédération Français Aéronautique

Part-MED. For this reason, the Subparts 'Aero-medical Centres' (ARA.AeMC) and 'Medical' (ARA.MED) in Annex VI, as well as ORA.AeMC in Annex VII were also included in the scope of the task. This was reflected in Issue 2 of the ToRs which was published on 22nd October 2012. The proposed updated text will be included in the NPA to be published under RMT.0412 and RMT.0413 (former task numbers FCL.013(a) and (b)) on updating Parts ORA and ARA.

2.1.7 Scope. The main focus in this NPA is on:

(a) editorial review;
(b) text changes to ensure consistency of wording;
(c) covering gaps that were identified; and
(d) updating the medical provisions, where possible.

2.1.8 This NPA encompasses the full spectrum of Part-MED and while most issues are non-contentious there are others where opinions among stakeholders, including within the medical community, are diverse. These items have been excluded from this NPA and will be dealt with individually in separate, dedicated NPAs, to be processed through RMT.0424 and RMT.0603 'Regular update of Part-MED'. This is to provide sufficient time for the preparation of Regulatory Impact Assessments (RIAs) as appropriate, a dedicated consultation and also to avoid that this very general NPA is delayed.

For the reasons mentioned above, the following items were excluded from this NPA: insulin treated diabetes mellitus, new anticoagulants, operational multi-pilot limitation and 1% rule. Comments received on these topics will be referred to RMT.0424 and RMT.0603.

2.1.9 Regulatory impact assessment (RIA). As indicated on the process map on the title page, a RIA is not required for this NPA, as there are no significant amendments proposed. Furthermore, one single RIA would also be difficult for an NPA that encompasses medical rules in 17 different subjects (cardiology, respiratory system, haematology, etc.) not only for pilots with very different privileges (commercial, private, leisure) but also for cabin crew. Topics on which a RIA was considered necessary were excluded from this review, also see 2.1.8.

2.2 Objectives

The specific objectives of this proposal are to review and update Part-MED to Regulation Aircrew, excluding Subpart C 'requirements for medical fitness of cabin crew', but including the AMC and GM to this Subpart, as well as to address eventual implementation and transitional problems, where identified.

2.3 Overview of the proposed amendments

2.3.1 Editorial corrections and changes for clarification and consistency

Editorial changes have been made to improve the text of Part-MED, to ensure consistency of wording and, where necessary, to clarify the meaning of an Implementing Rule (IR) or Acceptable Means of Compliance (AMC). In some cases, paragraphs have been re-arranged to better align the IRs and AMCs. These amendments are purely editorial and do not imply a technical change of the IR or AMC. Examples of these changes are:

(a) The expressions 'a fit assessment can be considered' and 'a fit assessment may be considered' are both used throughout Subpart B. In order to avoid misunderstandings on whether or not there is a difference between the two expressions, the text has been aligned and 'a fit assessment may be considered' is used in all cases.

(b) The words 'to assess', 'to evaluate', and 'to review' are used inconsistently in section 2 of Subpart B and the related AMCs. This has raised questions on whether or not they have the same meaning. For clarification, the words are now used as follows:

(1) 'to evaluate' is used where a specialist, e.g. a cardiologist, evaluates the medical situation of a pilot and provides the findings to the AME, AeMC, or licensing authority as appropriate for the class of medical certificate;

(2) 'to assess' is used when the AME, AeMC, or licensing authority assesses the specific findings and the 'evaluation' of a specialist and uses the information for the decision on medical fitness;

(3) 'to review' has been replaced in most cases by either of the two terms above, as appropriate.

(c) '(a medical condition) is disqualifying' has been changed to 'an applicant with (a medical condition) should be assessed as unfit' which is considered to be the better terminology.

(d) As the combination of the expression 'and/or' as in 'examination and/or assessment' does not provide legal certainty, it has been replaced by 'and'. The corresponding paragraphs have been further amended in order to preserve the original meaning.

(e) In several cases, particularly in cardiology, more flexibility has been introduced with regard to examination methods to be used when evaluating a specific condition, by adding 'or equivalent test' to the method proposed in an AMC.

2.3.2 Subpart A

(a) Definitions

(1) MED.A.010 contains the definitions as applicable for Part-MED. Some definitions have been amended and two new definitions have been added.

(2) A new definition for 'applicant' has been added to replace the term 'person' in Subpart A. Where 'applicant' is used without further determination, such as 'applicant for a medical certificate' or 'applicant for a cabin crew medical report', the expression covers both flight crew and cabin crew members, as applicable.

(3) The definition 'examination' has been amended to clarify that it is the aim of the aero-medical examination to assess 'medical fitness' as opposed to 'diagnosing disease'.

(4) A definition to explain 'significant' has been added for clarification. The wording is based on the definition from ICAO Annex 1, paragraph 1.1, adjusted for the purpose

of Part-MED to ensure that it can be applied to both flight crew and cabin crew members.

(5) Other changes to the definitions which were considered to be editorial, have been made to improve the text.

(b) Decrease in medical fitness

(1) Amendments have been made to subparagraphs MED.A.020 (a) and (b) to clarify that this paragraph also applies to student pilots. The AMC to this paragraph has been deleted because the content is either covered in the IR (AMC subparagraphs (a) and (b)), in which case the AMC does not provide additional information, or is outdated (subparagraph (c)).

(2) MED.A.020 (b)(2) and (e) require holders of a medical certificate and cabin crew members to seek aero-medical advice when they have commenced regular use of medication. This has led to questions from stakeholders on how a pilot or cabin crew member would know in which cases the aero-medical advice should be sought. IEM FCL 3.040 of JAR-FCL 3 already contained guidance material on 'medication' which was not transposed to Part-MED. It has now been reviewed, updated, and tailored for the use of aircrew as guidance for their obligation as set out in MED.A.020 (b)(2) and (e) and has been added as GM 1 MED A.020 to this NPA.

(c) Obligations of AeMC, AME, GMP and OHMP

Paragraph MED.A.025 on the obligations of an AeMC, AME, GMP, and OHMP has been considerably amended for clarification:

(1) New subparagraph (a)(3): Incorrect statements on the medical history. This subparagraph has been added to explain that the examiner shall inform the licensing authority in cases where an applicant provides incorrect statements on their medical history. The procedure to be followed by the authority will be further clarified in Part-ARA. The subparagraph also applies to holders of a cabin crew attestation and provides the link to CC.GEN.025(b)[13]. The possible consequences of providing incomplete, inaccurate, or false statements are further explained in the new AMC 1 MED.A.025 (b).

(2) New subparagraph (a)(4): Withdrawal of an application for a medical certificate. Applicants who realise that they might be assessed as unfit could withdraw their application and then re-apply with another AME, possibly in another Member State, to try to get a fit assessment. A new subparagraph (a)(4) has been added in order to avoid that a medical certificate is issued based on incomplete medical information. The AME is now required to inform the licensing authority and to transmit the corresponding documentation if an application for a medical certificate has been withdrawn.

(3) New GM has been added to MED.A.025 to provide guidelines for examiners on how to conduct the medical examinations. The text is based on JAA material, namely on IEM

[13] CC.GEN.025 Privileges and conditions

…

(b) Cabin crew members may exercise the privileges specified in (a) only if they:
(1) hold a valid cabin crew attestation as specified in CC.CCA.105; and
(2) comply with CC.GEN.030, CC.TRA.225 and the applicable requirements of Part-MED.

FCL 3.095(c)(3), with changes made to reflect the rules in Part-MED and to improve readability.

(4) Deletion of existing subparagraph (b)(3): Right of secondary review. Originally, this paragraph said that the AME shall inform an applicant who has been assessed as unfit of his/her right 'of appeal'. During the comitology procedure 'right of appeal' was replaced by 'right of a secondary review'. When implementing Part-MED, this caused problems in some Member States because the original word 'appeal' was meant to be a legal process (the same as in FCL.1030[14]), while 'secondary review' is the process to review the medical decision with independent medical advisors, e.g. a Medical Board. In order not to revert to a wording that was already rejected, subparagraph (b)(3) has been deleted, also taking into account that the right of appeal against any administrative decision will be in the national law of all Member States.

(5) Amendment of subparagraph renumbered (b)(3): Transmission of documents of aero-medical examination. Based on ICAO Annex 1, 1.2.4.7, it is the general understanding worldwide that AMEs shall submit the individual results of an aero-medical examination to the licensing authority. This was originally intended to be indicated in the rule, supported by an AMC providing more details on which documents should be submitted to the licensing authority. The Agency has received statements saying that, in order to comply with data protection laws, this requirement should be moved to implementing rule. The subparagraph (b)(3) has, therefore, been amended to further clarify which data shall be transmitted to the licensing authority, and the corresponding paragraphs AMC 1 MED.A.025 (a) and (b) have been deleted.

(6) New subparagraph (b)(4): Information for holders of a medical certificate. This subparagraph has been added to oblige examiners to inform holders of medical certificates of their responsibilities in the case of decrease in medical fitness as laid down in paragraph MED.A.020.

(7) New subparagraph (c): Consultation with the licensing authority. Subpart B of Part-MED requires AMEs and AeMCs in specific cases to assess the medical fitness of applicants for a class 2 medical certificate 'in consultation with the licensing authority'. Member States have raised concerns that it is not clear how this consultation should be carried out. The original intent was not to overregulate and to leave this decision to the competent authorities. However, following the request, a new subparagraph (c) has been introduced in MED.A.025 to make the examiner aware that there will be a procedure to be followed. New AMC 1 MED.A.025 (c) further explains that the consultation should be documented in accordance with this procedure. The obligation for the competent authority to establish a procedure for the consultation in specific cases of applicants for a class 2 medical certificate will be added to Part-ARA.

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[14] FCL.1030 Conduct of skill tests, proficiency checks and assessments of competence

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(b) After completion of the skill test or proficiency check, the examiner shall:
(1) inform the applicant of the result of the test. In the event of a partial pass or fail, the examiner shall inform the applicant that he/she may not exercise the privileges of the rating until a full pass has been obtained. The examiner shall detail any further training requirement and explain the applicant's right of appeal;
…

(d) Medical certificates

Subparagraph (g) of MED.A.030 on audiogram testing. Pure-tone audiometry is required for applicants who apply for or hold an instrument rating. As this also applies to applicants for the new en route instrument rating, the paragraph has been amended accordingly.

(e) Validity, revalidation and renewal of medical certificates

New subparagraph MED.A.045 (c)(2)(i): Renewal of medical certificates. MED.A.045 (c) describes the basis on which an applicant has to be assessed if the medical certificate has expired. While information is provided for cases where the medical certificate has expired for more than 2 or 5 years, there is no rule on how to proceed when the medical certificate has expired for less than 2 years. In order to close this gap, subparagraph (c)(2)(i) has been added to clarify that a routine revalidation examination is necessary if the medical certificate has expired for less than 2 years.

(f) Suspension and revocation of medical certificates

A new paragraph MED.A.046 has been added to close a gap. It addresses the obligation of holders of a medical certificate to return it to the authority if it has been suspended or revoked. This is to counter the risk that the holder might use the medical certificate to exercise the licence privileges, as it appears to be valid according to the expiry date on the certificate.

2.3.3 Subpart B, Section 1, General

(a) The proposed amendments to MED.B.001 concern the limitations to medical certificates and consist of broadening the scope of the GMP to allow them to impose the TML (time limitation) on LAPL medical certificates, and in moving the SSL (special restrictions as specified) from AMC to IR. The SSL is to be used in cases where highly individual limitations have to be imposed to ensure the safe exercise of the privileges of the licence, e.g. in the case of disabled pilots. As this limitation shall be described on the medical certificate, it was considered to be best placed in the implementing rule.

(b) The AMCs to MED.B.001 reflect the changes made in the corresponding rule. In addition, the descriptions of the limitations have been moved from GM to AMC. Where no descriptions existed, they have been added to cover the gap.

(c) Another proposed amendment is to move the existing paragraph MED.B.005 from section 2 of Subpart B to section 1 of the same Subpart. MED.B.005 contains the very basic medical requirements and the result of including it in section 1 is that it will be applicable for LAPL medical certificates which is presently not the case.

(d) This change is considered to be necessary because the rules for the LAPL medical certificate in paragraph MED.B.095 do not contain medical criteria for the assessment of applicants. The lack of a rule for specific LAPL medical requirements was considered to be a gap in Part-MED that should be covered without undermining the overall aim of not having strict rules for LAPL medical certificates. The inclusion of MED.B.005 in section 1 of Subpart B does not change the objective of lighter and flexible requirements for the LAPL medical certificate because this general paragraph that does not provide specific fit or unfit criteria. The applicability of MED.B.005 for the LAPL medical certificate is supposed to provide the necessary basis on which to rely for the medical assessment of these applicants. Detailed medical criteria for the LAPL will remain in the AMCs to MED.B.095.

(e) Subparagraph (b) in MED.B.005 has been deleted because the authority's procedures should specify the level of input required from the AME or AeMC for the authority's decision on medical fitness of applicants who are referred to the licensing authority. In addition, subparagraph (c) in MED.B.005 has been deleted because the decision on medical fitness of

an applicant for a class 2 medical certificate is made in consultation with the licensing authority. The applicant is not referred to the licensing authority as specified in the current wording. Again, the authority will be required to have procedures for the consultation in Part-ARA, specifying the level of input required from the authority, AME or AeMC.

2.3.4 Subpart B, Medical requirements for class 1, class 2, and LAPL medical certificates

2.3.4.1 General

(a) As outlined in paragraph 2.1.7 of this Explanatory Note, the aim of this NPA is not to substantially change the specific medical requirements, but to apply editorial improvements, to cover gaps, to ensure consistency of the wording, and to update the rules where possible. More detailed amendments and technical improvements will be considered in the rulemaking tasks RMT.0424 and RMT.0603 'Regular update of Part-MED', where organ systems will be addressed in individual packages, e.g. 'update cardiology', 'update respiratory system', etc. This approach will ensure that the individual task is more focussed, specialist advice can be taken in more detail, and the overall timeframe needed for an individual task will be shorter than when addressing the complete Part-MED. The amendments for medical fitness of pilots proposed in this NPA and explained here below should be evaluated with this approach in mind.

(b) Many paragraphs on the specific organ systems start with a general subparagraph which states, for example, 'An applicant shall not suffer from any disorder of the […] system which is likely to interfere with the safe exercise of the applicable licence(s)'. This subparagraph has been deleted where possible because it was considered to be a repetition of MED.B.005 (a).

(c) The current text in many of the AMCs for class 1 medical requirements states 'may be assessed as fit by the licensing authority' or 'a fit assessment may be considered by the licensing authority'. The wording 'by the licensing authority' has been deleted, as it was considered to be repetition of 'referred to the licensing authority' in the IRs.

(d) Other editorial changes made in Subpart B to ensure consistency are self-explanatory and are not explicitly mentioned in this Explanatory Note.

2.3.4.2 Cardiovascular system

(a) Class 1

(1) Aortic aneurysm before surgery: Applicants with an aneurysm of the infra-renal abdominal aorta may be assessed as fit under certain conditions (MED.B.010 (b)(2) and AMC 1 MED.B.010 (d)(1)). It is proposed to clarify in the AMC that the diameter of the aneurysm should not be greater than 5 cm^2 which in any case would be an indication for surgery. The reason for the change is the risk of rupture of the aneurysm which rises with the diameter of the lesion and could lead to a sudden incapacitation and death.

(2) Aortic aneurysm after surgery: A change is proposed on the outcome of an assessment of applicants with a thoracic or supra-renal aortic aneurysm after surgery (MED.B.010 (b)(2) and AMC 1 MED.B.010 (d)(2)) to provide the possibility for a fit assessment, which is not the case in the current rules. The result of the surgery would have to be evaluated by a cardiologist in support of the assessment by the licensing authority. The reason is that a fit assessment should not be denied if the outcome of the operation is good and regular follow-up of the medical condition ensures that any

deterioration of the vascular situation is detected at an early stage. The IRs and AMCs on aortic aneurysm have been reworded accordingly.

(3) Heart rhythm disturbance: No changes were made to the IRs with regard to heart rhythm disturbances, but the corresponding AMCs have been amended.

(i) Complete right bundle branch block: The AMC 1 MED.B.010 (l)(6) has been amended to assess initial applicants and those for revalidation differently. The reason is that all applicants have to undergo an evaluation by a cardiologist and a fit assessment should be possible for all applicants if the situation is stable. This leads to a deletion of a period of 12 months of proven stability for initial applicants and of the OML for revalidation for applicants over age 40. Follow-up evaluations by a cardiologist should be considered as outlined in AMC1 MED.B.010 (l)(1) and should ensure that any deterioration of the rhythm disturbance is detected.

(ii) Bifascicular block: This specific heart rhythm disturbance is currently not included in Part-MED and has been added to AMC 1 MED.B.010 (l)(6) as subparagraph (ii). A fit assessment should be possible with an OML which may be removed under certain conditions.

(4) GM for the assessment of mitral valve disease (GM 1 MED.B.010) and ventricular pre-excitation (GM 2 MED.B.010) has been added to support harmonised assessment of applicants with these conditions.

(b) Class 2

(1) It is proposed in MED.B.010 (a)(1)(ii) to require a 12-lead resting ECG at the initial examination for a class 2 medical certificate and to delete the ECG that is presently required at the first examination after age 40. The reason is to detect cardiological disease such as e.g. Wolf Parkinson White and Brugada syndrome which could be a risk of incapacitation at an early stage. However, it has to be mentioned that this is not fully in line with ICAO Annex 1 where an ECG at initial examination is recommended while an ECG at the first examination after the age of 40 is a rule.

(2) Subparagraph (m) has been added to AMC 2 MED.B.010 to provide assessment criteria for heart or heart/lung transplantation, as this is needed in support of the implementing rule which allows a fit assessment to be considered after the transplant.

(3) Other AMC text is proposed in order to provide missing criteria for assessment of other cardiological conditions, such as aortic valve disease.

(4) Guidance material on the assessment of mitral valve disease and ventricular pre-excitation has been added as GM 3 MED.010 and GM 4 MED.B.010 as for class 1 and for the same reason.

(c) LAPL

One major change has been made to AMC 2 MED.B.095 (d)(2) regarding angina pectoris requiring medication. This is presently one of the few unfit criteria for all classes of medical certificates, including the LAPL where it is now proposed to consider a fit assessment after cardiological evaluation. The risk of a sudden incapacitation during flight in a person with this condition may be seen as unacceptable by specialists and comments on this change will be carefully evaluated.

2.3.4.3 Respiratory system

(a) Class 1

One change is proposed for the assessment of applicants who have undergone thoracic surgery where AMC 1 MED.B.015 (g)(1) presently requires the applicant to wait for 3 months after surgery before an aero-medical assessment can be made. It is also stated in this paragraph that the effects of the operation should not be likely to interfere with the safe exercise of the privileges of the licence, which is considered to be the better provision. The time required to recover after an operation could be longer or shorter than 3 months depending on the type of thoracic surgery and also on the individual disposition of an applicant. This is why the fixed time period has been deleted.

(b) Class 2

Subparagraph (a)(1) has been added to AMC 2 MED.B.015 (a) to state that a spirometric examination should be performed on clinical indication. This is to ensure that, in the case of pulmonary disease, oxygen uptake is such that it does not interfere with the safe exercise of the privileges of the licence.

2.3.4.4 Digestive system

(a) Class 1, class 2 and LAPL

New subparagraphs have been added to AMC 1 MED.B.020, AMC 2 MED.B.020 and AMC 4 MED.B.095, to take account of liver diseases, including the possibility for a fit assessment after liver transplantation. Applicants who underwent liver transplantation will have to be assessed with regard to, inter alia, the underlying condition leading to the operation and the medication to prevent rejection of the transplant. This is summarised under 'satisfactory gastroenterological evaluation' to provide the necessary flexibility when assessing the medical fitness of the applicant. However, some stakeholders may see this as not sufficiently elaborated and comments on this issue will be carefully evaluated.

2.3.4.5 Metabolic and endocrine systems

(a) LAPL

(1) In AMC5 MED.B.095 (d)(3), the limitation to operate with a safety pilot in an aircraft with dual controls (OSL) prevents affected pilots from exercising their privileges in single pilot aircraft. The proposed amendment allows the pilot to fly without passengers (OPL) without a safety pilot. If passengers are carried, then the OSL will need to be applied.

(2) A new GM 2 MED.B.095 is proposed to provide guidance for converting HbA1c in % to HbA1c in mmol/mol.

2.3.4.6 Haematology

(a) Class 1

AMC 1 MED.B.030 has been amended to include in subparagraph (e) the assessment of applicants with thrombocytopenia to cover a gap.

2.3.4.7 Genitourinary system

(a) Class 1

According to the current AMC 1 MED.B.035 (d)(1), applicants who have undergone surgery on the genitourinary system should be medically assessed after a recovery time of 3

months. The fixed time period has been deleted in favour of requiring that recovery is complete. Please see 2.3.4.3 (a) for a similar change after thoracic surgery.

(b) LAPL

AMC 7 MED.B.095 has been amended to add that an applicant may be considered for a fit assessment after renal transplantation. As this is possible for class 1 and class 2 medical certificates, the addition has been made here for consistency.

2.3.4.8 Infectious disease

(a) Class 2

AMC 2 MED.B.040 (b) on HIV has been reworded for clarification, as the present text is not clear on the fit or unfit assessment.

(b) LAPL

AMC 8 MED.B.095 contains only one paragraph which refers to HIV infections. One general paragraph on infectious disease has been added to clarify that also other infectious diseases should be taken into account when assessing the medical fitness of LAPL licence holders.

2.3.4.9 Obstetrics and gynaecology

(a) Class 1 and class 2

The requirement in MED.B.045 to suspend a medical certificate for pregnant licence holders after the 26th week of gestation has been deleted, as it causes unnecessary burden for the licence holder and for the authority. Instead, a requirement for a revalidation examination after termination of the pregnancy has been added in subparagraph renumbered (b)(1).

(b) Class 1

According to the current AMC 1 MED.B.045 (a), applicants who have undergone a major gynaecological operation should be medically assessed after a recovery time of 3 months. The fixed time period has been deleted in favour of requiring that recovery is complete. See 2.3.4.3 (a) for a similar change after thoracic surgery.

2.3.4.10 Musculoskeletal system

(a) Class 1 and class 2

Subparagraph MED.B.050 (c) has been amended to refer class 1 applicants to the licensing authority and to assess class 2 applicants in consultation with the licensing authority. The reason is that in cases of disabled pilots, a very individual assessment may have to be undertaken and that centralising the assessments at the licensing authority will provide for the experience needed.

2.3.4.11 Psychiatry

(a) Class 2

AMC 2 MED.B.055 has been amended to include subparagraphs on organic mental disorder, mood disorder and neurotic, stress-related and somatoform disorders to cover gaps. The wording has been copied from class 1 as it was considered to be not too restrictive.

(b) LAPL

(1) Subparagraph (a) of AMC 11 MED.B.095 on alcohol and other substance use has been amended to be clearer on the treatment and assessment of applicants with problematic use of alcohol and drugs. It was considered that the (mis)use of these

substances is one of the highest risks to flight safety and that the aim of low-level medical requirements for the LAPL should not be maintained in these cases.

(2) A new subparagraph (b) to AMC 11 MED.B.095 on functional psychotic disorders has been added to cover a gap and subparagraph (d) has been amended to be clearer on the use of psychotropic substances.

2.3.4.12 Neurology

(a) Class 1 and class 2

Subparagraph MED.B.065 (b)(9) has been added to cover a gap with regard to disorders of the nervous system due to vascular deficiencies including haemorrhagic and ischaemic events.

(b) Class 1 and class 2 and LAPL

Two subparagraphs, one on traumatic injury and a second one detailing the assessment of applicants with vascular deficiencies, have been added for class 1 to AMC 1 MED.B.065, for class 2 to AMC 2 MED.B.065, and for LAPL medical certificates to AMC 13 MED.B.095. The additions, which have an identical wording for all classes of medical certificates, have been made to further clarify the IRs for class 1 and class 2 in the case of brain injury, and to cover a gap in the AMCs for all classes of medical certificates with regard to vascular deficiencies.

2.3.4.13 Visual system

(a) Class 1 and class 2

The paragraphs of the implementing rules in MED.B.070 have been rearranged, which gives the impression that the rules have been considerably amended, which is not the case. However, the expression 'monocularity' has been introduced because the existing expression 'substandard vision in one eye' could be interpreted as 'monocularity'. This has been clarified and slightly different assessment criteria apply. Astigmatism is no longer specifically mentioned as it is considered to be covered under 'refractive error'.

(b) Class 1

(1) The wording of AMC 1 MED.B.070 has been simplified to improve clarity and for alignment with the IRs. Paragraph (f) has been amended to set out specific requirements for applicants with substandard vision and those with monocularity. A new paragraph (f)(3)(ii) has been added to take account of applicants with monocularity who cannot comply with the requirement to have normal visual fields. Monocular applicants need to have a normal visual field in the functional eye instead.

(2) Paragraph (i)(2) on intraocular lens surgery has been amended to delete the minimum time of 3 months to wait after surgery until an aero-medical assessment may be undertaken. The requirement now is that recovery must be complete. It should be noted that this change has not been made in paragraphs (i)(3) for retinal surgery and (i)(4) for glaucoma surgery where it was considered to be necessary to keep a time period of 6 months before an aero-medical assessment although the possibility for an earlier assessment in specific cases has been added.

(c) Class 2

The amendments to AMC 2 MED.B.070 with regard to substandard vision and monocularity mirror the changes made for class 1.

2.3.4.14 Otorhinolaryngology (ENT)

(a) Class 1 and 2

In MED.B.080 renumbered subparagraph (b) has been amended to include dysfunction of the Eustachian tube and hypoacusis in the list of conditions that need further examination and assessment before a fit assessment may be considered. This paragraph is presently applicable to class 1 only which results in a gap with regard to class 2 medical examinations and assessments. This NPA proposes to extend the applicability of this paragraph to class 2.

(b) Class 1

(1) The requirement for a referral to the licensing authority in cases of hypoacusis is presently in AMC 1 MED.B.080 (a)(3) which was considered to be inconsistent because referral in all other cases is included in the IRs of Part-MED. Consequently, the assessment of hypoacusis by the licensing authority has been moved to renumbered subparagraph (c)(1) of MED.B.080.

(2) A new subparagraph AMC 1 MED.080 (a)(4) has been added to clarify that the hearing requirements must be met also in cases where noise reducing devices are used.

(c) Class 2

(1) The requirement for consultation with the licensing authority in cases of hypoacusis for class 2 applicants for an instrument rating is presently in AMC 2 MED.B.080 (a)(2) which was considered to be inconsistent because consultation in all other cases is included in the IRs of Part-MED. Consequently, the assessment of hypoacusis in consultation with the licensing authority has been moved to a new subparagraph (c)(3) of MED.B.080.

(2) The possibility for a fit assessment in cases of profound deafness, major disorder of speech, or both, has been added to AMC 2 MED.B.080 (a)(4). An SSL (special restrictions as specified) such as 'limited to areas and operations where the use of radio is not mandatory' should be applied. It is known that deaf applicants have already been issued with a medical certificate; however, a positive assessment for deaf applicants, or applicants with major speech disorders, will be new in most Member States. Comments on this paragraph will be carefully reviewed before a final decision is made.

(d) LAPL

(1) AMC 16 MED.B.095 (a)(1) has been amended to clarify that it is possible to wear hearing aids when undergoing a hearing test, and a new subparagraph (a)(2) on the basic features of these hearing aids has been added.

(2) New subparagraph (a)(4) contains the same addition as for class 2 for deaf pilots, or pilots with a major disorder of speech, or both, to clarify that a fit assessment is possible with an SSL (special restrictions as specified).

2.3.4.15 Oncology

(a) Class 1 and class 2

According to the existing rules in MED.B.090, a fit assessment is not possible until after treatment for malignant disease. The proposed amendments take into account that there are long-term treatments which do not have side effects which might jeopardise flight safety. This will allow the possibility for a fit assessment, with limitations if needed, when

malignant disease is still under treatment instead of having to wait until treatment is completed. However, applicants under ongoing chemotherapy or radiation treatment should be assessed as unfit.

(b) LAPL

No changes have been proposed for AMC 18 MED.B.095, as the considerations described above have been taken into account in RMT.0584, which was a rulemaking task set up to provide the missing oncology paragraph for LAPL medical certification. The associated ED Decision will be published around the same time as publication of this NPA.

2.3.5 Subpart C Requirements for medical fitness of cabin crew

2.3.5.1 General

(a) As indicated in the Terms of Reference for this rulemaking task, the scope of this update of Subpart C is limited to the AMC and GM only.

(b) A new subparagraph (b) has been added to AMC1 MED.C.005 to provide an acceptable means of compliance for the rule which requires aero-medical assessments for cabin crew members to be conducted at intervals of a maximum of 60 months. This new subparagraph clarifies how the interval between aero-medical assessments of 60 months may be reduced by the competent authority if required by national medical practices.

2.3.5.2 Cardiovascular system

(a) Vasovagal syncope: 'recurrent vasovagal syncope' in AMC 2 MED.C.025 (b)(2)(viii) has been changed to 'vasovagal syncope', as it almost always recurs and it needs a review to establish a diagnosis, even on first presentation.

(b) Blood pressure: Subparagraph (c)(2) has been amended to ensure that any significant side effects from medication required do not have a negative impact when the cabin crew member carries out their safety duties.

(c) Coronary artery disease: A change is proposed in AMC 2 MED.C.025 (d)(2) to take account of the need for secondary prevention treatment.

(d) Thromboembolic disorders: A new subparagraph has been added, as cabin crew members should be assessed as unfit until after a period of stable anticoagulation for thromboembolic disorders.

2.3.5.3 Respiratory system

An amendment to AMC 3 MED.C.025 (b) is proposed to allow morphological testing, as well as functional testing, when required on clinical indication, as morphological tests, such as MRI scans, are known to be an effective mechanism for assessing respiratory conditions.

2.3.5.4 Digestive system

(a) Liver diseases, such as cirrhosis, and the side effects from the application of therapeutics after liver transplantation, are known to cause incapacitating symptoms. This has, therefore, been added to AMC 4 MED.C.025.

(b) The text has been changed to indicate which specialist should carry out the evaluation for certain conditions of the digestive system. The proposed amendment means that the evaluation can be conducted before or after treatment or surgery, unless specified, as it is more important that the specialist evaluates the condition of the applicant and the effect it could have on the cabin crew member carrying out their safety duties.

(c) The list of conditions which require gastroenterological evaluation has been expanded to include other incapacitating conditions, which are currently missing from the list.

2.3.5.5 Metabolic and endocrine systems

(a) In AMC 5 MED.C.025, exclusion criteria have been added for cabin crew members with diabetes mellitus requiring insulin, to support harmonised assessment of applicants with these conditions.

(b) The reference to the SIC limitation in AMC 5 MED.C.025 (c)(2) has been clarified, as it was not the intention to require regular specific medical examinations, but more to ensure that a specific additional examination takes place before the next assessment is due.

(c) New GM, providing a reference to the IATA Guidelines on Insulin-Treated Diabetes (Cabin Crew), has been introduced to facilitate the decision-making process for a fit or unfit assessment.

2.3.5.6 Genitourinary system

(a) A new subparagraph (e) has been added to AMC 7 MED.C.005, with criteria for the assessment of cabin crew members who have undergone renal transplantation.

(b) Another potential safety gap has been resolved by the addition of new text specifying that cabin crew members requiring dialysis should be assessed as unfit.

2.3.5.7 Musculoskeletal system

AMC 10 MED.C.025 has been enhanced to ensure that the musculoskeletal system is evaluated in relation to the effects that certain conditions may have on the cabin crew member when carrying out emergency procedures.

2.3.5.8 Neurology

A new subparagraph (c) has been added to AMC 13 MED.C.025, giving criteria for assessing applicants with a disorder of the nervous system due to traumatic injury or vascular deficiencies including haemorrhagic and ischaemic events.

2.3.5.9 Visual system

(a) An extended eye examination should only be undertaken by an eye specialist, as only a specialist would have the necessary equipment and knowledge needed to conduct the examination. Therefore, AMC 14 MED.C.025 (a)(2) has been amended accordingly.

(b) Spectacles and contact lenses: Hyperopia is not identical to presbyopia and both visual defects can occur together. Persons with a higher degree of hyperopia need to wear spectacles or contact lenses permanently. Persons with a presbyopic visual defect only need to have spectacles available for use if suddenly required. Persons with a combination of both visual defects need to wear multifocal spectacles permanently. AMC 14 MED.C.025 (g) has, therefore, been amended to clarify this. In addition, a new subparagraph (g)(4) has been added, to ensure that the cabin crew member has a spare set of spectacles which are readily available for immediate use whilst on duty, as this is missing in the current AMC.

2.3.5.10 Colour vision

(a) A correction was needed regarding the use of the expression 'colour safe' in AMC 15 MED.C.025, as the definition in MED.A.010 for 'colour safe' is not applicable to cabin crew members. The aim of the wording in AMC 15 MED.C.025 was to state that cabin crew members should be able to distinguish between red and green (e.g. to readily distinguish

call lights, pressure on oxygen bottles and escape slide indications), which are also the significant colours for air navigation. This is why the definition appeared to fit the purpose. However, in order to have a clear separation between the medical rules for pilots' and cabin crew members' needs, a change of wording, derived from ICAO, Annex 1, chapter 6, is proposed.

(b) New GM has been added (GM 2 MED.C.025) giving examples of colours for which correct perception is necessary for the cabin crew member to carry out safety duties effectively.

2.3.5.11 Otorhinolaryngology

(a) Ear barotrauma is a common condition in cabin crew, and it can cause dizziness and temporary hearing loss. Therefore, the Eustachian tube should be tested, for example by tympanometry, at the initial examination and when clinically indicated. Subparagraph (b)(1) of AMC 16 MED.C.025 has been amended to support this.

(b) AMC for use of hearing aids was missing and this has been addressed by the introduction of a new subparagraph (b)(3) in AMC 16 MED.C.025.

2.3.5.12 Cabin crew medical report

The elements which should be included in the cabin crew medical report for cabin crew attestation (CCA) applicants or holders are currently embedded in a 'form' in AMC 1 MED.C.030. In order to provide flexibility for the format of the report, these elements have moved to a list in the AMC. A new format example is proposed in new GM 1 MED.C.030(b), which is based on a combination of the elements given in the amended AMC, the EMPIC framework used by some Member States and the medical certificate for pilots. The following changes regarding the items to be recorded on the medical report are proposed:

(a) As the medical certificate for pilots requires the last and first name of the flight crew member, this has been copied for the cabin crew medical report.

(b) As the place of birth is not included in the medical certificate for pilots, this should be the same for the cabin crew medical report and changes have been made accordingly.

(c) Another proposed change has been made to ensure that the date of the previous medical report is recorded, as the validity depends on the date of issue of the medical report, as opposed to the date of the previous medical assessment.

(d) Instead of specifying the date of the next required aero-medical assessment, the wording has been changed as, currently, it implies a specific due date for the next assessment, which is not the intention. The next assessment can be conducted before the expiry date, not necessarily on the same date.

2.3.6 Subpart D Requirements for AME, GMP, OHMP

2.3.6.1 Section 1 Aero-Medical Examiners (AME)

(a) A new subparagraph (c) has been added to MED.D.001, to indicate that the AME can issue, revalidate and renew cabin crew medical reports, as this is currently missing in Part-MED. In addition, a new subparagraph (e) has been added to ensure that AME certificate holders only hold one AME certificate, which was the original intention.

(b) As not all Member States issue certificates for specialist medical training, the possibility of an alternative to a certificate has been introduced into MED.D.010 (a).

(c) MED.D.015 (a) currently requires the AME to conduct 30 aero-medical examinations within the five years preceding an application for the extension of privileges. The proposal is to

change this to three years to bring it into line with the 3-year validity period of the AME certificate.

(d) The Basic Regulation does not classify the AME training providers as 'organisations' and this is now clarified in the proposals for MED.D.020.

(e) Other key changes are related to the training requirements for aero-medical examiners, with the introduction of the principles of competency-based training (CBT) and new guidance material containing the associated curricula.

(f) The CBT concept has been added in light of developments by ICAO on the new approach to training with the emphasis on individual training needs measured by performance rather than knowledge alone. This will be further developed for Part-MED during future rulemaking tasks. However, the foundations have been introduced in this NPA as a starting point, including a new paragraph, GM3 MED.D.020, providing associated guidance to the training providers.

(g) The new guidance material on the training curricula in GM1 MED.D.020 and GM2 MED.D.020 is based on AMC FCL 3.090 of JAR-FCL 3 and the joint EUROCONTROL and ESAM information document 'Curriculum for training in aviation medicine[15]'. The wording and order is aligned with the AMCs for the training courses, amended to reflect the order in Part-MED Subpart B. These AMCs have been renumbered to link them to the implementing rules on training courses in aviation medicine, which is more appropriate than the current numbering.

(h) The cabin crew working environment, which has been tailored around the text for pilots, has been added to the basic course, as it is needed for AMEs conducting aero-medical assessments for cabin crew members. Also training item number 24 specifies eight hours of practical demonstrations of basic aeronautical knowledge, which is a difference to AMC FCL 3.090. It means visits to aircraft including cabin and flight compartments, as well as visits to maintenance companies, operators, aerodromes, etc, to provide experience of the operational aviation environment.

(i) As the refresher training requirements in MED.D.030 should have the same status as the basic and advanced training requirements, at least part of the current GM has been elevated to AMC level. The text on the type of scientific meetings or other aviation activity which may be credited by the competent authority as refresher training remains at GM level.

2.3.6.2 Section 3 Occupational Health Medical Practitioners (OHMP)

A gap has been closed in MED.D.040 by the addition of a rule to require the OHMP to notify the competent authority before starting their activity, as implied in MED.A.001(d). This is in line with the current rules for GMPs.

[15] August 2009

3 Proposed amendments

The text of the amendment is arranged to show deleted, new or amended text as shown below:

(a) deleted text is marked with ~~strike through~~;

(b) new or amended text is highlighted in grey;

(c) an ellipsis (…) indicates that the remaining text is unchanged in front of or following the reflected amendment; and

(d) where the order of a subparagraph has been changed, the affected text is marked with a strike through and the new order only shows changes to substance with strike through and highlights.

3.1 Draft Regulation (Draft EASA Opinion)

ANNEX IV

[PART-MED]

SUBPART A

GENERAL REQUIREMENTS

SECTION 1

General

MED.A.001 Competent authority

For the purpose of this Part, the competent authority shall be:

(a) for aero-medical centres (AeMC):

(1) the authority designated by the Member State where the AeMC has its principal place of business.

(2) where the AeMC is located in a third country, the Agency;

(b) for aero-medical examiners (AME):

(1) the authority designated by the Member State where the AMEs have their principal place of practice.

(2) if the principal place of practice of an AME is located in a third country, the authority designated by the Member State to which the AME applies for the issue of the AME certificate;

(c) for general medical practitioners (GMP), the authority designated by the Member State to which the GMP notifies his/her activity;

(d) for occupational health medical practitioners (OHMP) assessing the medical fitness of cabin crew, the authority designated by the Member State to which the OHMP notifies his/her activity.

MED.A.005 Scope

This Part establishes the requirements for:

(a) the issue, validity, revalidation and renewal of the medical certificate required for exercising the privileges of a pilot licence or of a student pilot;

(b) the medical fitness of cabin crew;

(c) the certification of AMEs; and

(d) the qualification of GMPs and of occupational health medical practitioners (OHMP).

MED.A.010 Definitions

For the purpose of this Part, the following definitions apply:

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

– 'Applicant' means an applicant for a medical certificate or a cabin crew aero-medical assessment;

– 'Assessment' means the conclusion on the medical fitness of ~~a person~~ an applicant based on the evaluation of the ~~person's~~ applicant's medical history and~~/or~~ aero-medical examinations as required in this Part and further examinations ~~as necessary,~~ and~~/or~~ medical tests as necessary ~~such as, but not limited to, ECG, blood pressure measurement, blood testing, X-ray;~~.

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

– 'Eye specialist' means an ophthalmologist or a vision care specialist qualified in optometry and trained to recognise pathological conditions;

– 'Examination' means an inspection, palpation, percussion, auscultation or any other means of investigation especially for ~~diagnosing disease~~ determining the medical fitness to exercise the privileges of the licence, or to carry out cabin crew safety duties;~~.~~

– 'Investigation' means the assessment of a suspected pathological condition of an applicant by means of examinations and tests in order to verify the presence or absence of a medical condition;

– 'Licensing authority' means the competent authority of the Member State that issued the licence, or to which a person applies for the issue of a licence, or, when a person has not yet applied for the issue of a licence, the competent authority in accordance with ~~this~~ Part-FCL;

– 'Limitation' means a condition placed on the medical certificate, licence or cabin crew medical report that shall be complied with whilst exercising the privileges of the licence~~,~~ or cabin crew attestation;

– 'Refractive error' means the deviation from emmetropia measured in dioptres in the most ametropic meridian, measured by standard methods;~~.~~

– 'Significant' means a degree of a medical condition, the effect of which would prevent the safe exercise of the privileges of the licence or of the cabin crew safety duties.

MED.A.015 Medical confidentiality

All persons involved in aero-medical examination, assessment and certification shall ensure that medical confidentiality is respected at all times.

MED.A.020 Decrease in medical fitness

(a) Licence holders shall not exercise the privileges of their licence and related ratings or certificates, and student pilots shall not fly solo, at any time when they:

(1) are aware of any decrease in their medical fitness which might render them unable to safely exercise those privileges;

(2) take or use any prescribed or non-prescribed medication which is likely to interfere with the safe exercise of the privileges of the applicable licence;

(3) receive any medical, surgical or other treatment that is likely to interfere with ~~flight safety~~ the safe exercise of the privileges of the applicable licence.

(b) In addition, ~~licence~~ holders of a medical certificate shall, without undue delay, seek aero-medical advice when they:

(1) have undergone a surgical operation or invasive procedure;

(2) have commenced the regular use of any medication;

(3) have suffered any significant personal injury involving incapacity to function as a member of the flight crew;

(4) have been suffering from any significant illness involving incapacity to function as a member of the flight crew;

(5) are pregnant;

(6) have been admitted to hospital or medical clinic;

(7) first require correcting lenses.

(c) In the~~se~~ cases referred to in (b):

(1) holders of class 1 and class 2 medical certificates shall seek the advice of an AeMC or AME. The AeMC or AME shall assess their medical fitness ~~of the licence holder~~ and decide whether they are fit to resume the exercise of their privileges;

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

(3) student pilots shall seek the advice of an AeMC, AME or the GMP who signed the medical certificate. The AeMC, AME or GMP shall assess their medical fitness and decide whether they are fit to fly solo.

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

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

MED.A.025 Obligations of AeMC, AME, GMP and OHMP

(a) When conducting medical examinations and~~/or~~ assessments as required in this Part, the AeMC, AME, GMP and OHMP shall:

(1) ensure that communication with the ~~person~~ applicant can be established without language barriers;

(2) make the ~~person~~ applicant aware of the consequences of providing incomplete, inaccurate or false statements on their medical history;

(3) notify the licensing authority, or, in the case of cabin crew attestation holders, notify the competent authority if the applicant provides incomplete, inaccurate or false statements on their medical history;~~.~~

(4) notify the licensing authority if an applicant withdraws the application for a medical certificate at any stage of the process.

(b) After completion of the aero-medical examinations and~~/or~~ assessments, the AeMC, AME, GMP and OHMP shall:

(1) advise the ~~person~~ applicant whether fit, unfit or referred to the licensing authority, AeMC or AME as applicable;

(2) inform the ~~person~~ applicant of any limitation that may restrict flight training or the privileges of the licence, or cabin crew attestation as applicable;

~~(3) if the person has been assessed as unfit, inform him/her of his/her right of a secondary review; and~~

(3)~~(4)~~in the case of applicants for a medical certificate, submit without delay to the licensing authority a signed, or electronically authenticated, report containing the detailed results of the aero-medical examination and assessment as required for the class of medical certificate ~~to include the assessment results~~ and a copy of the application form, the examination form, and the medical certificate ~~to the licensing authority~~; and

(4) inform the applicant of their responsibilities in the case of decrease in medical fitness, as specified in MED.A.020.

(c) Where consultation with the licensing authority is required in accordance with this Part, the AeMC and AME shall follow the procedure established by the competent authority.

(d~~c~~) AeMCs, AMEs, GMPs and OHMPs shall maintain records with details of aero-medical examinations and assessments performed in accordance with this Part and their results ~~in accordance with national legislation~~ for a minimum of 10 years or for a period as determined by national legislation if this is longer.

(e~~d~~) ~~When required for medical certification and/or oversight functions,~~ AeMCs, AMEs, GMPs and OHMPs shall submit to the medical assessor of the competent authority, upon request, all aero-medical records and reports, and any other relevant information when required for:

(1) medical certification;

(2) oversight functions.

SECTION 2

Requirements for medical certificates

MED.A.030 Medical certificates

(a) A student pilot shall not fly solo unless that student pilot holds a medical certificate, as required for the relevant licence.

(b) Applicants for and holders of a light aircraft pilot licence (LAPL) shall hold at least a LAPL medical certificate.

(c) Applicants for and holders of a private pilot licence (PPL), a sailplane pilot licence (SPL), or a balloon pilot licence (BPL) shall hold at least a class 2 medical certificate.

(d) Applicants for and holders of an SPL or a BPL involved in commercial sailplane or balloon flights shall hold at least a class 2 medical certificate.

(e) If a night rating is added to a PPL or LAPL, the licence holder shall be colour safe.

(f) Applicants for and holders of a commercial pilot licence (CPL), a multi-crew pilot licence (MPL), or an airline transport pilot licence (ATPL) shall hold a class 1 medical certificate.

(g) If an instrument rating or en route instrument rating is added to a PPL, the licence holder shall undertake pure tone audiometry examinations in accordance with the periodicity and the standard required for class 1 medical certificate holders.

(h) A licence holder shall not at any time hold more than one medical certificate issued in accordance with this Part.

MED.A.035 Application for a medical certificate

(a) Applications for a medical certificate shall be made in a format established by the competent authority.

(b) Applicants for a medical certificate shall provide the AeMC, AME or GMP as applicable, with:

(1) proof of their identity;

(2) a signed declaration:

(i) of medical facts concerning their medical history;

(ii) as to whether they have previously applied for a medical certificate or have undergone an examination for a medical certificate and, if so, by whom and with what result;

(iii) as to whether they have ever been assessed as unfit or had a medical certificate suspended or revoked.

(c) When applying for a revalidation or renewal of the medical certificate, applicants shall present the most recent medical certificate to the AeMC, AME or GMP prior to the relevant examinations.

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

(a) A medical certificate shall only be issued, revalidated or renewed once the required aero-medical examinations and~~/or~~ assessments, as applicable, have been completed and a fit assessment is made.

(b) *Initial issue*

(1) Class 1 medical certificates shall be issued by an AeMC.

(2) Class 2 medical certificates shall be issued by an AeMC or an AME.

(3) LAPL medical certificates shall be issued by an AeMC, an AME or, if permitted under the national law of the Member State where the licence is issued, by a GMP.

(c) *Revalidation and renewal*

(1) Class 1 and class 2 medical certificates shall be revalidated or renewed by an AeMC or an AME.

(2) LAPL medical certificates shall be revalidated or renewed by an AeMC, an AME or, if permitted under the national law of the Member State where the licence is issued, by a GMP.

(d) The AeMC, AME or GMP shall only issue, revalidate or renew a medical certificate if:

(1) the applicant has provided them with a complete medical history and, if required by the AeMC, AME or GMP, results of medical examinations and tests conducted by the applicant's ~~doctor~~ physician or any medical specialists; and

(2) the AeMC, AME or GMP have conducted the aero-medical assessment based on the medical examinations and tests as required for the relevant medical certificate to verify that the applicant complies with all the relevant requirements of this Part.

(e) The AME, AeMC or, in the case of referral, the licensing authority, may require the applicant to undergo additional medical examinations and investigations when clinically indicated before ~~they~~ the medical certificate is issued, revalidated or renewed ~~a medical certificate~~.

(f) The licensing authority may issue or re-issue a medical certificate, as applicable, if:

(1) a case is referred;

(2) it has identified that corrections to the information on the certificate are necessary in which case the incorrect medical certificate shall be revoked.

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

(a) *Validity*

(1) Class 1 medical certificates shall be valid for a period of 12 months.

(2) The period of validity of class 1 medical certificates shall be reduced to 6 months for licence holders who:

(i) are engaged in single-pilot commercial air transport operations carrying passengers and have reached the age of 40;

(ii) have reached the age of 60.

(3) Class 2 medical certificates shall be valid for a period of:

(i) 60 months until the licence holder reaches the age of 40. A medical certificate issued prior to reaching the age of 40 shall cease to be valid after the licence holder reaches the age of 42;

(ii) 24 months between the age of 40 and 50. A medical certificate issued prior to reaching the age of 50 shall cease to be valid after the licence holder reaches the age of 51; and

(iii) 12 months after the age of 50.

(4) LAPL medical certificates shall be valid for a period of:

(i) 60 months until the licence holder reaches the age of 40. A medical certificate issued prior to reaching the age of 40 shall cease to be valid after the licence holder reaches the age of 42;

(ii) 24 months after the age of 40.

(5) The validity period of a medical certificate, including any associated examination or special investigation, shall be:

(i) determined by the age of the applicant at the date when the aero-medical examination takes place; and

(ii) calculated from the date of the aero-medical examination in the case of initial issue and renewal, and from the expiry date of the previous medical certificate in the case of revalidation.

(b) *Revalidation*

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

(c) *Renewal*

(1) If the holder of a medical certificate does not comply with (b), a renewal examination and /or assessment shall be required.

(2) In the case of class 1 and class 2 medical certificates:

(i) if the medical certificate has expired for less than 2 years, a routine revalidation examination shall be performed;

(ii) if the medical certificate has expired for more than 2 years, the AeMC or AME shall only conduct the renewal examination after assessment of the aero-medical records of the applicant;

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

(3) In the case of LAPL medical certificates, the AeMC, AME or GMP shall assess the medical history of the applicant and perform the aero-medical examination and/or assessment in accordance with MED.B.095.

MED.A.046 Suspension and revocation of medical certificates

Upon suspension or revocation of the medical certificate, the holder shall immediately return the medical certificate to the licensing authority.

MED.A.050 Referral

(a) If an applicant for a class 1 or class 2 medical certificate is referred to the licensing authority in accordance with MED.–B.001, the AeMC or AME shall transfer the relevant medical documentation to the licensing authority.

(b) If an applicant for a LAPL medical certificate is referred to an AME or AeMC in accordance with MED.B.001, the GMP shall transfer the relevant medical documentation to the AeMC or AME.

SUBPART B

REQUIREMENTS FOR PILOT MEDICAL CERTIFICATES

SECTION 1

General

MED.B.001 Limitations to medical certificates

(a) *Limitations to class 1 and class 2 medical certificates*

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

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

(ii) in cases where a referral to the licensing authority is not indicated in this Subpart, evaluate whether the applicant is able to perform his/her duties safely when complying with one or more limitations endorsed on the medical certificate, and issue the medical certificate with limitation(s) as necessary;

(iii) in the case of applicants for a class 2 medical certificate, evaluate, in consultation with the licensing authority as indicated in this Subpart, whether the applicant is able to perform his/her duties safely when complying with one or more limitations endorsed on the medical certificate, and issue the medical certificate, with limitation(s) as necessary. ~~with limitation(s), in consultation with the licensing authority;and.~~

(2~~iv~~) The AeMC or AME may revalidate or renew a medical certificate with the same limitation without ~~referring the applicant to~~ involving the licensing authority.

(b) *Limitations to LAPL medical certificates*

(1) If a GMP, after due consideration of the applicant's medical history, concludes that the applicant does not fully meet the requirements for medical fitness, the GMP shall refer the applicant to an AeMC or AME, except those requiring a limitation related ~~only~~ to the use of corrective lenses or to the period of validity of the medical certificate.

(2) If an applicant for a LAPL medical certificate has been referred, the AeMC or AME shall give due consideration to MED.B.005 and MED.B.095, evaluate whether the applicant is able to perform their duties safely when complying with one or more limitations endorsed on the medical certificate and issue the medical certificate with limitation(s) as necessary. The AeMC or AME shall always consider the need to restrict the pilot from carrying passengers (Operational Passenger Limitation, OPL).

(3) The GMP may revalidate or renew a LAPL medical certificate with the same limitation without referring the applicant to an AeMC or AME.

(c) When assessing whether a limitation is necessary, particular consideration shall be given to:

(1) whether accredited medical conclusion indicates that in special circumstances the applicant's failure to meet any requirement, whether numerical or otherwise, is such that the exercise of the privileges of the licence applied for is not likely to jeopardise flight safety;

(2) the applicant's ability, skill and experience relevant to the operation to be performed.

(d) *Operational limitation codes*

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

(i) When the holder of a CPL, ATPL or MPL does not fully meet the requirements for a class 1 medical certificate and has been referred to the licensing authority, it shall be assessed whether the medical certificate may be issued with an OML 'valid only as or with qualified co-pilot'. This assessment shall be performed by the licensing authority.

(ii) The holder of a medical certificate with an OML shall only operate an aircraft in multi-pilot operations when the other pilot is fully qualified on the relevant type of aircraft, is not subject to an OML and has not attained the age of 60 years.

(iii) The OML for class 1 medical certificates ~~may~~ shall ~~only~~ be initially imposed and only be removed by the licensing authority.

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

(i) The holder of a medical certificate with an OSL ~~limitation~~ shall only operate an aircraft if another pilot fully qualified to act as pilot-in-command on the relevant class or type of aircraft is carried on board, the aircraft is fitted with dual controls and the other pilot occupies a seat at the controls.

(ii) The OSL for class 2 medical certificates may be imposed ~~or~~ and removed by an AeMC or AME in consultation with the licensing authority.

(iii) The OSL for LAPL medical certificates may be imposed and removed by an AeMC or AME.

(3) Operational Passenger Limitation (OPL - Class 2 and LAPL privileges)

(i) The holder of a medical certificate with an OPL ~~limitation~~ shall only operate an aircraft without passengers on board.

(ii) ~~An~~ The OPL for class 2 medical certificates may be imposed and removed by an AeMC or AME in consultation with the licensing authority.

(iii) ~~An~~ The OPL for ~~a~~ LAPL medical certificates ~~limitation~~ may be imposed or removed by an AeMC or AME.

(4) Special Restriction as Specified (SSL)

The SSL on a medical certificate shall be followed by a description of the limitation.

(e) Any other limitation may be imposed on the holder of a medical certificate if required to ensure flight safety.

(f) Any limitation imposed on the holder of a medical certificate shall be specified therein.

~~*SECTION 2*~~

~~***Medical requirements for class 1 and class 2 medical certificates***~~

MED.B.005 General medical requirements

~~(a)~~ Applicants for a medical certificate shall be free from any:

(a~~1~~) abnormality, congenital or acquired;

(b~~2~~) active, latent, acute or chronic disease or disability;

(c~~3~~) wound, injury or sequelae from operation;

(d~~4~~) effect or side effect of any prescribed or non-prescribed therapeutic, diagnostic or preventive medication taken;

that would entail a degree of functional incapacity which is likely to interfere with the safe exercise of the privileges of the applicable licence or could render the applicant likely to become suddenly unable to exercise the privileges of the licence safely.

~~(b) In cases where the decision on medical fitness of an applicant for a Class 1 medical certificate is referred to the licensing authority, this authority may delegate such a decision to an AeMC, except in cases where an OML is needed.~~

~~(c) In cases where the decision on medical fitness of an applicant for a Class 2 medical certificate is referred to the licensing authority, this authority may delegate such a decision to an AeMC or an AME, except in cases where an OSL or OPL is needed.~~

SECTION 2

Medical requirements for class 1 and class 2 medical certificates

MED.B.010 Cardiovascular System

(a) *Examination*

(1) A standard 12-lead resting electrocardiogram (ECG) and report shall be completed on clinical indication, and:

(i) for a class 1 medical certificate, at the initial examination ~~for the first issue of a medical certificate~~, then every 5 years until age 30, every 2 years until age 40, annually until age 50, and at all revalidation or renewal examinations thereafter;

(ii) for a class 2 medical certificate, at the ~~first~~ initial examination, ~~after age 40 and~~ then ~~every 2 years after~~ at the first examination after age 50 and every 2 years thereafter.

(2) An ~~E~~extended cardiovascular assessment shall be required when clinically indicated.

(3) For a class 1 medical certificate, an extended cardiovascular assessment shall be completed at the first revalidation or renewal examination after age 65 and every 4 years thereafter.

(4) For a class 1 medical certificate, estimation of serum lipids, including cholesterol, shall be required at the examination for the first issue of a medical certificate, and at the first examination after having reached the age of 40.

(b) *Cardiovascular System – General*

~~(1) Applicants shall not suffer from any cardiovascular disorder which is likely to interfere with the safe exercise of the privileges of the applicable licence(s).~~

(1~~2~~) Applicants for a class 1 medical certificate with any of the following conditions shall be assessed as unfit:

(i) aneurysm of the thoracic or supra-renal abdominal aorta, before ~~or after~~ surgery;

(ii) significant functional abnormality of any of the heart valves;

(iii) heart or heart/lung transplantation.

(23) Applicants for a class 1 medical certificate with an established history or diagnosis of any of the following conditions shall be referred to the licensing authority:

(i) peripheral arterial disease before or after surgery;

(ii) aneurysm of the thoracic or supra-renal abdominal aorta~~, before or~~ after surgery;

(iii) aneurysm of the infra-renal abdominal aorta before or after surgery;

(iv~~iii~~) functionally insignificant cardiac valvular abnormalities;

(v~~iv~~) after cardiac valve surgery*;*

(vi~~v~~) abnormality of the pericardium, myocardium or endocardium;

(vii~~vi~~) congenital abnormality of the heart, before or after corrective surgery;

(viii~~vii~~) ~~recurrent~~ vasovagal syncope;

(ix~~viii~~) arterial or venous thrombosis;

(x~~ix~~) pulmonary embolism;

(xi~~x~~) cardiovascular condition requiring systemic anticoagulant therapy.

(34) Applicants for a class 2 medical certificate with an established diagnosis of one of the conditions specified in (~~2~~1) and (~~3~~2) above shall be ~~assessed~~ evaluated by a cardiologist before a fit assessment ~~can~~ may be considered in consultation with the licensing authority.

(c) *Blood Pressure*

(1) The blood pressure shall be recorded at each examination.

(2) The applicant's blood pressure shall be within normal limits.

(3) Applicants for a class 1 medical certificate:

(i) with symptomatic hypotension; or

(ii) whose blood pressure at examination consistently exceeds 160 mmHg systolic and/or 95 mmHg diastolic, with or without treatment;

shall be assessed as unfit.

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

(d) *Coronary Artery Disease*

(1) Applicants for a class 1 medical certificate with:

(i) suspected myocardial ischaemia;

(ii) asymptomatic minor coronary artery disease requiring no anti-anginal treatment;

shall be referred to the licensing authority and undergo cardiological evaluation to exclude myocardial ischaemia before a fit assessment ~~can~~ may be considered.

(2) Applicants for a class 2 medical certificate with any of the conditions detailed in (1) shall undergo cardiological evaluation before a fit assessment ~~can~~ may be considered.

(3) Applicants with any of the following conditions shall be assessed as unfit:

(i) myocardial ischaemia;

(ii) symptomatic coronary artery disease;

(iii) symptoms of coronary artery disease controlled by medication.

(4) Applicants for the initial issue of a class 1 medical certificate with a history or diagnosis of any of the following conditions shall be assessed as unfit:

(i) myocardial ischaemia;

(ii) myocardial infarction;

(iii) revascularisation for coronary artery disease.

(5) Applicants for a class 2 medical certificate who are asymptomatic following myocardial infarction or surgery for coronary artery disease shall undergo satisfactory cardiological evaluation before a fit assessment ~~can~~ may be considered in consultation with the licensing authority. Applicants for the revalidation of a class 1 medical certificate shall be referred to the licensing authority.

(e) *Rhythm/Conduction Disturbances*

(1) Applicants for a class 1 medical certificate shall be referred to the licensing authority when they have any significant disturbance of cardiac conduction or rhythm, including any of the following:

(i) disturbance of supraventricular rhythm, including intermittent or established sinoatrial dysfunction, atrial fibrillation and/or flutter and asymptomatic sinus pauses;

(ii) complete left bundle branch block;

(iii) Mobitz type 2 atrioventricular block;

(iv) broad and/or narrow complex tachycardia;

(v) ventricular pre-excitation;

(vi) asymptomatic QT prolongation;

(vii) Brugada pattern on electrocardiography.

(2) Applicants for a class 2 medical certificate with any of the conditions detailed in (1) shall undergo satisfactory cardiological evaluation before a fit assessment in consultation with the licensing authority ~~can~~ may be considered.

(3) Applicants with any of the following:

(i) incomplete bundle branch block;

(ii) complete right bundle branch block;

(iii) stable left axis deviation;

(iv) asymptomatic sinus bradycardia;

(v) asymptomatic sinus tachycardia;

(vi) asymptomatic isolated uniform supra-ventricular or ventricular ectopic complexes;

(vii) first degree atrioventricular block;

(viii) Mobitz type 1 atrioventricular block;

may be assessed as fit in the absence of any other abnormality and subject to satisfactory cardiological evaluation.

(4) Applicants with a history of:

(i) ablation therapy;

(ii) pacemaker implantation;

shall undergo satisfactory cardiovascular evaluation before a fit assessment ~~can~~ may be considered. Applicants for a class 1 medical certificate shall be referred to the licensing authority. Applicants for a class 2 medical certificate shall be assessed in consultation with the licensing authority.

(5) Applicants with any of the following conditions shall be assessed as unfit:

(i) symptomatic sinoatrial disease;

(ii) complete atrioventricular block;

(iii) symptomatic QT prolongation;

(iv) an automatic implantable defibrillating system;

(v) a ventricular anti-tachycardia pacemaker.

MED.B.015 Respiratory System

(a) Applicants with significant impairment of pulmonary function shall be assessed as unfit. A fit assessment may be considered once pulmonary function has recovered and is satisfactory.

(b) For a class 1 medical certificate, applicants are required to undertake pulmonary function tests at the initial examination and on clinical indication.

(c) For a class 2 medical certificate, applicants are required to undertake pulmonary function tests on clinical indication.

(d) Applicants with a history or established diagnosis of:

(1) asthma requiring medication;

(2) active inflammatory disease of the respiratory system;

(3) active sarcoidosis;

(4) pneumothorax;

(5) sleep apnoea syndrome;

(6) major thoracic surgery;

(7) pneumonectomy;

(8) chronic obstructive pulmonary disease;

shall undergo respiratory evaluation with a satisfactory result before a fit assessment ~~can~~ may be considered. Applicants with an established diagnosis of the conditions specified in (3), ~~and~~ (5), and (8) shall undergo satisfactory cardiological evaluation before a fit assessment ~~can~~ may be considered.

(e) Aero-medical assessment:

(1) applicants for a class 1 medical certificate with any of the conditions detailed in (d) above shall be referred to the licensing authority.

(2) applicants for a class 2 medical certificate with any of the conditions detailed in (d) above shall be assessed in consultation with the licensing authority.

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

MED.B.020 Digestive System

~~(a) Applicants shall not possess any functional or structural disease of the gastro-intestinal tract or its adnexa which is likely to interfere with the safe exercise of the privileges of the applicable licence(s).~~

(a~~b~~) Applicants with any sequelae of disease or surgical intervention in any part of the digestive tract or its adnexa likely to cause incapacitation in flight, in particular any obstruction due to stricture or compression shall be assessed as unfit.

(b~~c~~) Applicants shall be free from herniae that might give rise to incapacitating symptoms.

(c~~d~~) Applicants with disorders of the gastro-intestinal system including:

(1) recurrent dyspeptic disorder requiring medication;

(2) pancreatitis;

(3) symptomatic gallstones;

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

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

shall be assessed as unfit. A fit assessment may be considered after successful treatment or full recovery after surgery and subject to satisfactory gastroenterological evaluation.

(d~~e~~) Aero-medical assessment:

(1) applicants for a class 1 medical certificate with the diagnosis of the conditions specified in (2), (4) and (5) shall be referred to the licensing authority;

(2) fitness of class 2 applicants with pancreatitis shall be assessed in consultation with the licensing authority.

MED.B.025 Metabolic and Endocrine Systems

(a) Applicants shall not possess any functional or structural metabolic, nutritional or endocrine disorder which is likely to interfere with the safe exercise of the privileges of the applicable licence(s).

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

(c) *Diabetes mellitus*

(1) Applicants with diabetes mellitus requiring insulin shall be assessed as unfit.

(2) Applicants with diabetes mellitus not requiring insulin shall be assessed as unfit unless it can be demonstrated that blood sugar control has been achieved.

(d) Aero-medical assessment:

(1) applicants for a class 1 medical certificate requiring medication other than insulin for blood sugar control shall be referred to the licensing authority;

(2) fitness of class 2 applicants requiring medication other than insulin for blood sugar control shall be assessed in consultation with the licensing authority.

MED.B.030 Haematology

(a) ~~Applicants shall not possess any haematological disease which is likely to interfere with the safe exercise of the privileges of the applicable licence(s).~~

(ab) For a class 1 medical certificate, haemoglobin shall be tested at each examination for the issue of a medical certificate.

(bc) Applicants with a haematological condition, such as:

(1) coagulation, haemorrhagic or thrombotic disorder;

(2) chronic leukaemia;

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

(cd) Aero-medical assessment:

(1) applicants for a class 1 medical certificate with one of the conditions specified in (cb) above shall be referred to the licensing authority;

(2) fitness of class 2 applicants with one of the conditions specified in (cb) above shall be assessed in consultation with the licensing authority.

(de) Class 1 applicants with one of the haematological conditions specified below shall be referred to the licensing authority:

(1) abnormal haemoglobin, including, but not limited to anaemia, erythrocytosis ~~polycythaemia~~ or haemoglobinopathy;

(2) significant lymphatic enlargement;

(3) enlargement of the spleen.

MED.B.035 Genitourinary System

(a) ~~Applicants shall not possess any functional or structural disease of the renal or genitourinary system or its adnexa which is likely to interfere with the safe exercise of the privileges of the applicable licence(s).~~

(ab) Urinalysis shall form part of every aero-medical examination. The urine shall contain no abnormal element considered to be of pathological significance.

(bc) Applicants with any sequelae of disease or surgical procedures on the genitourinary system or its adnexa ~~kidneys or the urinary tract~~ likely to cause incapacitation, in particular any obstruction due to stricture or compression shall be assessed as unfit.

(cd) Applicants with a genitourinary disorder, such as:

(1) renal disease;

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

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

(d~~e~~) Applicants who have undergone a major surgical operation in the genitourinary system or its adnexa ~~urinary apparatus~~ involving a total or partial excision or a diversion of its organs shall be assessed as unfit. ~~and be re-assessed a~~After full recovery, ~~before~~ a fit assessment may be considered. Applicants for a class 1 medical certificate shall be referred to the licensing authority. ~~for the assessment~~.

MED.B.040 Infectious Disease

(a) Applicants shall have no established medical history or clinical diagnosis of any infectious disease which is likely to interfere with the safe exercise of the privileges of the applicable licence ~~held~~.

(b) Applicants who are HIV positive may be assessed as fit subject to satisfactory aero-medical evaluation. Applicants for a class 1 medical certificate shall be referred to the licensing authority.

MED.B.045 Obstetrics and Gynaecology

~~(a) Applicants shall not possess any functional or structural obstetric or gynaecological condition which is likely to interfere with the safe exercise of the privileges of the applicable licence(s).~~

(a~~b~~) Applicants who have undergone a major gynaecological operation shall be assessed as unfit until full recovery.

(b~~c~~) *Pregnancy*

(1) In the case of pregnancy, if the AeMC or AME considers that the licence holder is fit to exercise her privileges, he/she shall limit the validity period of the medical certificate to the end of the 26th week of gestation. ~~After this point, the certificate shall be suspended.~~ The ~~suspension shall be lifted~~ licence holder shall undergo a renewal examination and assessment after full recovery following the end of the pregnancy.

(2) Holders of class 1 medical certificates shall only exercise the privileges of their licences until the 26th week of gestation with an OML. Notwithstanding MED.–B.001 in this case, the OML may be imposed and removed by the AeMC or AME.

MED.B.050 Musculoskeletal System

(a) Applicants shall not possess any abnormality of the bones, joints, muscles or tendons, congenital or acquired which is likely to interfere with the safe exercise of the privileges of the applicable licence(s).

(b) An applicant shall have sufficient sitting height, arm and leg length and muscular strength for the safe exercise of the privileges of the applicable licence(s).

(c) An applicant shall have satisfactory functional use of the musculoskeletal system to enable the safe exercise of the privileges of the applicable licence(s). In case of doubt, ~~Fitness of the~~ applicants for a class 1 medical certificate shall be referred to ~~assessed in consultation with~~ the licensing authority and applicants for a class 2 medical certificate shall be assessed in consultation with the licensing authority.

MED.B.055 Psychiatry

~~(a)~~ ~~Applicants shall have no established medical history or clinical diagnosis of any psychiatric disease or disability, condition or disorder, acute or chronic, congenital or acquired, which is likely to interfere with the safe exercise of the privileges of the applicable licence(s).~~

(a~~b~~) Applicants with a mental or behavioural disorder due to alcohol or other use or abuse of psychotropic substances shall be assessed as unfit pending recovery and freedom from substance use and subject to satisfactory psychiatric evaluation after successful treatment. Applicants for a class 1 medical certificate shall be referred to the licensing authority. Fitness of class 2 applicants shall be assessed in consultation with the licensing authority.

(b~~c~~) Applicants with a psychiatric condition such as:

(1) mood disorder;

(2) neurotic disorder;

(3) personality disorder;

(4) mental or behavioural disorder;

shall undergo satisfactory psychiatric evaluation before a fit assessment ~~can~~ may be made.

(c~~d~~) Applicants with a history of a single or repeated acts of deliberate self-harm shall be assessed as unfit. Applicants shall undergo satisfactory psychiatric evaluation before a fit assessment ~~can~~ may be considered.

(d~~e~~) Aero-medical assessment:

(1) applicants for a class 1 medical certificate with one of the conditions detailed in (~~b~~a), (~~c~~b) or (~~d~~c) above shall be referred to the licensing authority;

(2) fitness of class 2 applicants with one of the conditions detailed in (~~b~~a), (~~c~~b) or (~~d~~c) above shall be assessed in consultation with the licensing authority.

(e~~f~~) Applicants with an established history or clinical diagnosis of schizophrenia, schizotypal or delusional disorder shall be assessed as unfit.

MED.B.060 Psychology

(a) Applicants shall have no established psychological deficiencies, which are likely to interfere with the safe exercise of the privileges of the applicable licence(s).

(b) A psychological evaluation may be required as part of, or complementary to, a specialist psychiatric or neurological examination.

MED.B.065 Neurology

~~(a)~~ ~~Applicants shall have no established medical history or clinical diagnosis of any neurological condition which is likely to interfere with the safe exercise of the privileges of the applicable licence(s)~~.

(a~~b~~) Applicants with an established history or clinical diagnosis of:

(1) epilepsy;

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

shall be assessed as unfit.

(bc) Applicants with an established history or clinical diagnosis of:

(1) epilepsy without recurrence after age 5;

(2) epilepsy without recurrence and off all treatment for more than 10 years;

(3) epileptiform EEG abnormalities and focal slow waves;

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

(5 a single episode of disturbance of consciousness of uncertain cause;

(6) loss of consciousness after head injury;

(7) penetrating brain injury;

(8) spinal or peripheral nerve injury;

(9) disorders of the nervous system due to vascular deficiencies including haemorrhagic and ischaemic events;

shall undergo further evaluation before a fit assessment ~~can~~ may be considered. Applicants for a class 1 medical certificate shall be referred to the licensing authority. Fitness of class 2 applicants shall be assessed in consultation with the licensing authority.

MED.B.070 Visual System

(a) Applicants shall not possess any abnormality of the function of the eyes or their adnexa or any active pathological condition, congenital or acquired, acute or chronic, or any sequelae of eye surgery or trauma, which is likely to interfere with the safe exercise of the privileges of the applicable licence(s).

(b) *Examination*

(1) For a class 1 medical certificate:

(i) a comprehensive eye examination shall form part of the initial examination and be undertaken on clinical indication, and periodically depending on the refraction and the functional performance of the eye; and

(ii) a routine eye examination shall form part of all revalidation and renewal examinations.

(2) For a class 2 medical certificate:

(i) a routine eye examination shall form part of the initial and all revalidation and renewal examinations; and

(ii) a comprehensive eye examination shall be undertaken when clinically indicated.

~~(c) Distant visual acuity, with or without correction, shall be:~~

~~(1) in the case of class 1 medical certificates, 6/9 (0,7) or better in each eye separately and visual acuity with both eyes shall be 6/6 (1,0) or better;~~

~~(2) in the case of class 2 medical certificates, 6/12 (0,5) or better in each eye separately and visual acuity with both eyes shall be 6/9 (0,7) or better. An applicant with substandard vision in one eye may be assessed as fit in consultation with the licensing authority subject to satisfactory ophthalmic assessment;~~

~~(3) applicants for an initial class 1 medical certificate with substandard vision in one eye shall be assessed as unfit. At revalidation, applicants with acquired substandard vision~~

~~in one eye shall be referred to the licensing authority and may be assessed as fit if it is unlikely to interfere with safe exercise of the licence held.~~

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

~~(e) Applicants for a class 1 medical certificate shall be required to have normal fields of vision and normal binocular function.~~

~~(f) Applicants who have undergone eye surgery may be assessed as fit subject to satisfactory ophthalmic evaluation.~~

~~(g) Applicants with a clinical diagnosis of keratoconus may be assessed as fit subject to a satisfactory examination by an ophthalmologist. Applicants for a class 1 medical certificate shall be referred to the licensing authority.~~

~~(h) Applicants with:~~

~~(1) astigmatism;~~

~~(2) anisometropia;~~

~~may be assessed as fit subject to satisfactory ophthalmic evaluation.~~

~~(i) Applicants with diplopia shall be assessed as unfit.~~

~~(j) *Spectacles and contact lenses*. If satisfactory visual function is achieved only with the use of correction:~~

~~(1) (i) for distant vision, spectacles or contact lenses shall be worn whilst exercising the privileges of the applicable licence(s);~~

~~(ii) for near vision, a pair of spectacles for near use shall be kept available during the exercise of the privileges of the licence;~~

~~(2) a spare set of similarly correcting spectacles shall be readily available for immediate use whilst exercising the privileges of the applicable licence(s);~~

~~(3) the correction shall provide optimal visual function, be well-tolerated and suitable for aviation purposes;~~

~~(4) if contact lenses are worn, they shall be for distant vision, monofocal, non-tinted and well tolerated;~~

~~(5) applicants with a large refractive error shall use contact lenses or high-index spectacle lenses;~~

~~(6) no more than one pair of spectacles shall be used to meet the visual requirements;~~

~~(7) orthokeratological lenses shall not be used.~~

(c) Visual acuity – Substandard vision in one eye

(1) Class 1 medical certificates:

(i) Initial examination: Distant visual acuity, with or without correction, shall be 6/9 (0,7) or better in each eye separately and visual acuity with both eyes shall be 6/6 (1,0) or better. Applicants with substandard vision in one eye shall be assessed as unfit.

(ii) Revalidation and renewal examinations: Applicants with acquired substandard vision in one eye or acquired monocularity shall be referred to the licensing

authority and may be assessed as fit subject to a satisfactory ophthalmological evaluation.

(2) Class 2 medical certificates:

(i) Distant visual acuity, with or without correction, shall be 6/12 (0,5) or better in each eye separately and visual acuity with both eyes shall be 6/9 (0,7) or better.

(ii) Notwithstanding paragraph (2)(i), applicants for class 2 medical certificates with substandard vision in one eye or monocularity may be assessed as fit in consultation with the licensing authority and subject to a satisfactory ophthalmic evaluation.

(3) Applicants shall be able to read an N5 chart or equivalent at 30-50 cm and an N14 chart or equivalent at 100 cm, if necessary with correction.

(d) Refractive error and anisometropia

(1) Applicants with refractive errors or anisometropia may be assessed as fit subject to satisfactory ophthalmic evaluation.

(2) Applicants with a clinical diagnosis of keratoconus may be assessed as fit subject to a satisfactory examination by an ophthalmologist. Applicants for a class 1 medical certificate shall be referred to the licensing authority.

(e) Binocular function

(1) Applicants for a class 1 medical certificate shall have normal binocular function.

(2) Applicants with diplopia shall be assessed as unfit.

(f) Visual fields

Applicants for a class 1 medical certificate shall be required to have normal fields of vision.

(g) Eye surgery

Applicants who have undergone eye surgery shall be assessed as unfit until full recovery of visual function. A fit assessment may be considered subject to satisfactory ophthalmological evaluation.

(h) Spectacles and contact lenses

(1) If satisfactory visual function is achieved only with the use of correction, the correction spectacles or contact lenses shall provide optimal visual function, be well-tolerated and suitable for aviation purposes.

(2) No more than one pair of spectacles shall be used to meet the visual requirements when exercising the privileges of the applicable licence(s).

(3) For distant vision, spectacles or contact lenses shall be worn when exercising the privileges of the applicable licence(s).

(4) For near vision, a pair of spectacles shall be kept available when exercising the privileges of the applicable licence(s).

(5) A spare set of similarly correcting spectacles, for distant or near vision as applicable, shall be readily available for immediate use when exercising the privileges of the applicable licence(s).

(6) If contact lenses are worn when exercising the privileges of the applicable licence(s), they shall be for distant vision, monofocal and, non-tinted and well-tolerated.

(7) Applicants with a large refractive error shall use contact lenses or high-index spectacle lenses.

(8) Orthokeratological lenses shall not be used.

MED.B.075 Colour vision

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

~~(b)~~ *Examination and assessment*

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

(b) Class 1 medical certificates:

(1~~2~~) Applicants for a class 1 medical certificate who ~~fail to~~ do not pass ~~in~~ the Ishihara test shall be referred to the licensing authority and undergo further colour perception testing to establish whether they are colour safe.

(2~~c~~) ~~In the case of~~ Applicants for a ~~C~~class 1 medical certificate~~s applicants~~ shall have normal perception of colours or be colour safe.

(3~~c~~) Applicants who fail further colour perception testing shall be assessed as unfit.

(c) Class 2 medical certificates:

(1) Applicants for a class 2 medical certificate who do not pass the Ishihara test shall undergo further colour perception testing to establish whether they are colour safe, or shall be limited to flying in day time only.

(2~~d~~) Applicants for a class 2 medical certificates who do not have satisfactory perception of colours shall be limited to flying in daytime only.

~~(c) In the case of class 1 medical certificates, 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.~~

MED.B.080 Otorhino-laryngology (ENT)

~~(a) Applicants shall not possess any abnormality of the function of the ears, nose, sinuses or throat, including oral cavity, teeth and larynx, or any active pathological condition, congenital or acquired, acute or chronic, or any sequelae of surgery or trauma which is likely to interfere with the safe exercise of the privileges of the applicable licence(s).~~

~~(b) Hearing shall be satisfactory for the safe exercise of the privileges of the applicable licence(s).~~

(a~~c~~) *Examination*

(1) Hearing shall be tested at all examinations.

(i) ~~In the case of class 1 medical certificates and class 2 medical certificates, w~~When an instrument rating or en route instrument rating is to be added to the licence ~~held~~, hearing shall be tested with pure tone audiometry at the initial examination ~~and, at subsequent revalidation or renewal examinations,~~ then every five years until ~~the~~ age 40 and every two years thereafter.

(ii) When tested on a pure-tone audiometer, initial applicants shall not have a hearing loss of more than 35 dB at any of the frequencies 500, 1 000 or 2 000 Hz, or more than 50 dB at 3 000 Hz, in either ear separately. Applicants for revalidation or renewal, with greater hearing loss shall demonstrate satisfactory functional hearing ability.

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

(2) A comprehensive ear, nose and throat examination shall be undertaken for the initial issue of a class 1 medical certificate and periodically thereafter when clinically indicated.

(b~~d~~) Applicants ~~for a class 1 medical certificate~~ with:

(1) hypoacusis;

(2~~1~~) an active pathological process, acute or chronic, of the internal or middle ear;

(3~~2~~) unhealed perforation or dysfunction of the tympanic membrane(s);

(4) dysfunction of the Eustachian tube(s);

(5~~3~~) disturbance of vestibular function;

(6~~4~~) significant restriction of the nasal passages;

(7~~5~~) sinus dysfunction;

(8~~6~~) significant malformation or significant, acute or chronic infection of the oral cavity or upper respiratory tract;

(9~~7~~) significant disorder of speech or voice;

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

(c~~e~~) Aero-medical assessment:

(1) applicants for a class 1 medical certificate with ~~the disturbance of vestibular function~~ a medical condition specified in (b)(1), (b)(4), or (b)(5) shall be referred to the licensing authority;

(2) fitness of class 2 applicants with ~~the disturbance of vestibular function~~ a medical condition specified in (b)(4) or (b)(5) shall be assessed in consultation with the licensing authority;

(3) fitness of class 2 applicants for an instrument rating or en route instrument rating with the condition specified in (b)(1) shall be assessed in consultation with the licensing authority.

MED.B.085 Dermatology

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

MED.B.090 Oncology

(a) Applicants shall have no established primary or secondary malignant disease likely to interfere with the safe exercise of the privileges of the applicable licence(s).

(b) ~~After treatment for~~ Applicants with malignant disease~~, applicants~~ shall undergo satisfactory oncological evaluation before a fit assessment ~~can~~ may be ~~made~~ considered. Applicants for a ~~C~~class 1 medical certificate ~~applicants~~ shall be referred to the licensing authority. Fitness of class 2 applicants shall be assessed in consultation with the licensing authority.

(c) Applicants with an established history or clinical diagnosis of intracerebral malignant tumour shall be assessed as unfit.

SECTION 3

Specific requirements for LAPL medical certificates

MED.B.095 Medical examination and/or assessment of applicants for LAPL medical certificates

(a) An applicant for a LAPL medical certificate shall be assessed based on aero-medical best practice.

(b) Special attention shall be given to the applicant's complete medical history.

(c) The initial assessment, all subsequent re-assessments after age 50 and assessments in cases where the medical history of the applicant is not available to the examiner shall include at least the following:

(1) clinical examination;

(2) blood pressure;

~~(3) urine test;~~

(3~~4~~) vision;

(4~~5~~) hearing ability.

(d) After the initial assessment, subsequent re-assessments until age 50 shall include:

(1) an assessment of the LAPL holder's medical history; and

(2) the items under paragraph (c) as deemed necessary by the AeMC, AME or GMP in accordance with aero-medical best practice.

SUBPART D

AERO-MEDICAL EXAMINERS (AME), GENERAL MEDICAL PRACTITIONERS (GMP), OCCUPATIONAL HEALTH MEDICAL PRACTITIONERS (OHMP)

SECTION 1

Aero-Medical Examiners

MED.D.001 Privileges

(a) The privileges of an AME are to issue, revalidate and renew class 2 medical certificates and LAPL medical certificates, and to conduct the relevant medical examinations and assessments.

(b) Holders of an AME certificate may apply for an extension of their privileges to include medical examinations for the revalidation and renewal of class 1 medical certificates, if they comply with the requirements in MED.D.015.

(c) The privileges of a holder of an AME certificate referred to under (a) and (b) include the privileges to conduct cabin crew aero-medical assessments and to provide the related cabin crew medical reports, as applicable.

(d~~c~~) The scope of the privileges of the AME, and any condition thereof, shall be specified in the certificate.

(e) An AME certificate holder shall not at any time hold more than one AME certificate issued in accordance with this Part.

(f~~d~~) Holders of an AME certificate ~~as an AME~~ shall not undertake aero-medical examinations and assessments in a Member State other than the Member State that issued their AME certificate ~~as an AME~~, unless they have:

(1) been granted access by the host Member State to exercise their professional activities as a specialised doctor;

(2) informed the competent authority of the host Member State of their intention to conduct aero-medical examinations and assessments and to issue medical certificates within the scope of their privileges as AME; and

(3) received a briefing from the competent authority of the host Member State.

MED.D.005 Application

(a) Applications for an AME certificate, or for an extension of the privileges of the AME certificate, ~~as an AME~~ shall be made in a form and manner specified by the competent authority.

(b) Applicants for an AME certificate shall provide the competent authority with:

(1) personal details and professional address;

(2) documentation demonstrating that they comply with the requirements established in MED.D.010, including a certificate of completion of the training course in aviation medicine appropriate to the privileges they apply for;

(3) a written declaration that the AME will issue medical certificates on the basis of the requirements of this Part.

(c) When the AME undertakes aero-medical examinations in more than one location, they shall provide the competent authority with relevant information regarding all practice locations.

MED.D.010 Requirements for the issue of an AME certificate

Applicants for an AME certificate with the privileges for the initial issue, revalidation and renewal of class 2 medical certificates shall:

(a) be fully qualified and licensed for the practice of medicine and hold a Certificate of Completion, or have other evidence, of specialist medical training;

(b) have undertaken a basic training course in aviation medicine;

(c) demonstrate to the competent authority that they:

(1) have adequate facilities, procedures, documentation and functioning equipment suitable for aero-medical examinations; and

(2) have in place the necessary procedures and conditions to ensure medical confidentiality.

MED.D.015 Requirements for the extension of privileges

Applicants for an AME certificate extending their privileges to the revalidation and renewal of class 1 medical certificates shall hold a valid certificate as an AME and have:

(a) conducted at least 30 examinations for the issue, revalidation or renewal of class 2 medical certificates over a period of no more than ~~5~~ 3 years preceding the application;

(b) undertaken an advanced training course in aviation medicine; and

(c) undergone practical training at an AeMC or under supervision of the licensing authority .

MED.D.020 Training courses in aviation medicine

(a) Training courses in aviation medicine shall be approved by the competent authority of the Member State where the ~~organisation providing~~ training provider has its principal place of business. The ~~organisation providing the course~~ training provider shall demonstrate that the course syllabus ~~is adequate~~ contains the learning objectives to acquire the necessary competencies and that the persons in charge of providing the training have adequate knowledge and experience.

(b) Except in the case of refresher training, the courses shall be concluded by a written examination on the subjects included in the course content.

(c) The ~~organisation providing the course~~ training provider shall issue a certificate of completion to applicants when they have obtained a pass in the examination.

MED.D.025 Changes to the AME certificate

(a) AMEs shall notify the competent authority of the following changes which could affect their certificate:

(1) the AME is subject to disciplinary proceedings or investigation by a medical regulatory body;

(2) there are any changes to the conditions on which the certificate was granted, including the content of the statements provided with the application;

(3) the requirements for the issue of the AME certificate are no longer met;

(4) there is a change of aero-medical examiner's practice location(s) or correspondence address.

(b) Failure to inform the competent authority shall result in the suspension or revocation of the privileges of the AME certificate, on the basis of the decision of the competent authority that suspends or revokes the AME certificate.

MED.D.030 Validity of AME certificates

An AME certificate shall be ~~issued~~ valid for a period not exceeding 3 years. It shall be revalidated ~~subject to~~ providing the holder:

(a) ~~continuing~~ continues to fulfil the general conditions required for medical practice and ~~maintaining~~ maintains registration as a medical practitioner ~~according to national law~~;

(b) ~~undertaking~~ has undertaken refresher training in aviation medicine within the last 3 years;

(c) ~~having~~ has performed at least 10 aero-medical examinations every year;

(d) ~~remaining~~ remains in compliance with the terms of their certificate; and

(e) ~~exercising their~~ exercises the AME privileges in accordance with this Part.

SECTION 2

General Medical Practitioners (GMPs)

MED.D.035 Requirements for general medical practitioners

~~(a)~~ GMPs shall act as AMEs for issuing LAPL medical certificates only:

(a~~1~~) if they exercise their activity in a Member State where GMPs have ~~appropriate~~ access to the full medical records of applicants; ~~and~~

(b~~2~~) in accordance with any additional requirements established under national law;

(c~~b~~) ~~In order to issue LAPL medical certificates, general medical practitioners (GMP) shall be~~ if they are fully qualified and licensed for the practice of medicine in accordance with national law; and

~~(c) GMPs acting as AMEs shall notify their activity to the competent authority~~.

(d) they have notified the competent authority before starting such activity.

SECTION 3

Occupational Health Medical Practitioners (OHMP)

MED.D.040 Requirements for occupational health medical practitioners

~~OHMPs shall only conduct aero-medical assessments of cabin crew if:~~

~~(a) the competent authority is satisfied that the relevant national occupational health system can ensure compliance with the applicable requirements of this Part;~~

~~(b) they are licensed in the practice of medicine and qualified in occupational medicine in accordance with national law; and~~

~~(c) have acquired knowledge in aviation medicine as relevant to the operating environment of cabin crew.~~

In Member States where the competent authority is satisfied that the relevant national occupational health system can ensure compliance with the applicable requirements of this Part, OHMPs may conduct aero-medical assessments of cabin crew if:

(a) they are fully qualified and licensed in the practice of medicine and qualified in occupational medicine;

(b) the in-flight working environment and safety duties of the cabin crew were included in their occupational medicine qualification syllabus, or other training or operational experience; and

(c) they have notified the competent authority before starting such activity.

3.2 Draft Acceptable Means of Compliance and Guidance Material

Draft EASA Decision

AMC/GM to PART-MEDICAL

SUBPART A

General requirements

Section 1

General

AMC1 MED.A.015 Medical confidentiality

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

AMC1 MED.A.020 Decrease in medical fitness

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

~~(a) holders of class 1 or class 2 medical certificates should seek the advice of an AeMC or AME;~~

~~(b) holders of LAPL medical certificates should seek the advice of an AeMC, AME, or of the GMP who issued the holder's medical certificate;~~

~~(c) 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 more than 21 days.~~

GM1 MED.A.020 Decrease in medical fitness

MEDICATION – GUIDANCE FOR PILOTS AND CABIN CREW MEMBERS

(a) Any medication can cause side effects some of which may impair the safe performance of flying duties. Equally, symptoms of colds, sore throats, diarrhoea and other abdominal upsets may cause little or no problem whilst on the ground but may distract the pilot or cabin crew member and degrade their performance whilst on duty. The in-flight environment may also increase the severity of symptoms which may be minor while on the ground. Therefore, one issue in medication and flying is the underlying condition and, in addition, the symptoms may be compounded by the side effects of the medication prescribed or bought over the counter for the treatment of such ailments. This guidance material is to provide some help to pilots and cabin crew in deciding whether expert aero-medical advice by an AME, AeMC, GMP, OHMP or Medical Assessor is needed.

(b) Before taking any medication and acting as a pilot or cabin crew member, the following three basic questions should be satisfactorily answered.

(1) Do I feel fit to fly?

(2) Do I really need to take medication at all?

(3) Have I given this particular medication a personal trial on the ground to ensure that it will not have any adverse effects whatever on my ability to fly?

(c) Confirming the absence of adverse effects may well need expert aero-advice.

(d) The following are some widely used medicines with a description of their compatibility with flying duties:

(1) Antibiotics. Various Penicillin's, Tetracycline's, macrolides, gyrase inhibitors and others may have short-term or delayed side effects which can affect pilot or cabin crew performance. More significantly, however, their use usually indicates that an infection is present and, thus, the effects of this infection may mean that a pilot or cabin crew member is not fit to fly and should obtain expert aero-medical advice.

(2) Anti-malaria drugs. The decision of the need of anti-malaria drugs depends on the areas to be visited, and the risk that the pilot or cabin crew member has of being exposed to mosquitoes and of developing malaria. An expert medical opinion should be obtained in terms of whether anti-malaria drugs are needed and what kind of drugs should be used. Most of the anti-malaria drugs (atovaguone plus proguanil, chloroquine, doxycycline) are compatible with flying duties. However, adverse effects associated with mefloquine include insomnia, strange dreams, mood changes, nausea, diarrhoea and headaches. In addition, mefloquine may cause spatial disorientation and lack of fine co-ordination and is, therefore, not compatible with flying duties.

(3) Antihistamines. Antihistamines can cause drowsiness. They are widely used in 'cold cures' and in treatment of hay fever, asthma and allergic rashes. They may be in tablet form or a constituent of nose drops or sprays. In many cases the condition itself may preclude flying, so that, if treatment is necessary, expert aero-medical advice should be sought so that so-called non-sedative antihistamines, which do not degrade human performance, can be prescribed.

(4) Cough medicines. Antitussives often contain codeine, dextromethorfan or pseudo-ephedrine which are not compatible with flying duties. However, mucolytic agents (e.g. carbocysteine) are well-tolerated and are compatible with flying duties.

(5) Decongestants. Nasal decongestants with no effect on alertness (e.g. clobutinol or oxeladine) are compatible with flying duties. However, often the oedema of the mucosal membranes cause difficulties in equalising the pressure in the ears or sinuses, and, thus, makes the pilot and cabin crew member unfit for flying duties.

(6) Nasal corticosteroids are commonly used to treat hay fever, and they are compatible with flying duties.

(7) Pain killers, antifebrile and anti-headache drugs. The Non-Steroidal Anti Inflammatory Drugs (NSAIDs), commonly used to treat pain, fever and headache, may be compatible with flying duties (paracetamol, aspirin, ibuprofen). However, the pilot or cabin crew member should have given positive answers to the three basic questions before using the medication and flying.

(8) Anti-ulcer medicines (Antacids). Gastric secretion inhibitors such as H2 antagonists (e.g. ranitidine, cimetidine) or proton pump inhibitors (e.g. omeprazole) may be acceptable after diagnosis of the pathological condition. It is important to seek for medical diagnosis and not to treat only the dyspeptic symptoms.

(9) Anti-diarrhoeal drugs. Loperamide is the commonest anti-diarrheal drug and is safe when flying. However, the diarrhoea itself often makes the pilot and cabin crew member unfit for flying.

(10) Hormonal contraceptives and hormone replacement therapy usually have no adverse effects and are compatible with flying and cabin safety duties.

(11) Erectile dysfunction medication. This medication may cause disturbances in colour vision and dizziness. There should be at least 24 hours in between medication taken and flying duty.

(12) Smoking cessation. Nicotine replacement therapy may be allowed. However, other medication affecting the central nervous system (buproprion, varenicline) is not acceptable for pilots.

(13) High blood pressure medication. Antihypertensive drugs are compatible with flying duties only after consultation with the AME, AeMC, GMP, OHMP or Medical Assessor as

applicable as some of these drugs can cause a change in the normal cardiovascular reflexes and impair intellectual performance which can seriously affect flight safety. If the level of blood pressure is such that drug therapy is required, the pilot should be temporarily grounded and monitored for any side effects. Any treatment instituted should, therefore, be discussed with the AME, AeMC, GMP, OHMP or Medical Assessor as applicable (see MED.B.010(j)).

(14) Asthma medication. Asthma has to be clinically stable before a pilot or cabin crew member can return to flying duties. The use of respiratory aerosols, such as corticosteroids, beta-2-agonists, chromoglycic acid or anticholinergic drugs in low dose may be compatible with flying duties. However, the use of oral steroids or theophylline derivatives is incompatible whilst flying duty. If a pilot or cabin crew member uses any medication indicated for asthma, he/she should consult the AME, AeMC, GMP, OHMP or Medical Assessor, as applicable (see MED.B.015(c).

(15) Analgesics. The more potent analgesics are opiate derivatives, and may produce a significant decrement in human performance. If such potent analgesics are required, the pain for which they are taken generally indicates a condition which precludes flying duties.

(16) Tranquillisers, anti-depressants and sedatives. The inability to react, due to the use of this group of medicines, has been a contributory cause to fatal aircraft accidents. In addition, the underlying condition for which these medications have been prescribed will almost certainly mean that the mental state of a pilot or cabin crew member is not compatible with flying duties (see MED.B.050).

(17) Sleeping tablets. Sleeping tablets dull the senses, may cause mental confusion and slow reaction times. The duration of effect is variable and may vary from person to person and may be unduly prolonged. This medication should be avoided at least the night before duty, and expert aero-medical advice should be obtained before using them.

(18) Melatonin. Melatonin is a hormone that is involved with the regulation of the circadian rhythm. In some countries it is a prescription medicine, whereas in most of the countries it is regarded as a 'dietary supplement' and can be bought without any prescription. The results from the efficiency of melatonin in treatment of jet lag or sleep disorders have been contradictory. However, as melatonin may cause sleepiness, it should be avoided at least the night before the flight. In addition, expert aero-medical advice should be obtained.

(19) Stimulants. Caffeine, amphetamines, etc. (often known as 'pep' pills) used to maintain wakefulness or suppress appetite, are often habit forming. Susceptibility to different stimulants varies from one individual to another, and all may cause dangerous overconfidence. Overdosage causes headaches, dizziness and mental disturbance. The use of 'pep' pills is not permitted while flying. Where coffee intake does not offer sufficient stimulation, then an individual is not fit to fly. Remember that excessive coffee drinking has harmful effects including disturbance of the heart's rhythm (see MED.B.055(b)).

(20) Anaesthetics. Following local, general, dental and other anaesthetics, a period of time should elapse before returning to flying. The period will vary considerably from individual to individual, but a pilot or cabin crew member should not fly for at least 12 hours after a local anaesthetic, and for at least 48 hours after a general, spinal or epidural anaesthetic (see MED.A.020)

(e) Many preparations on the market nowadays contain a combination of medicines. It is, therefore, essential that if there is any new medication or dosage, however slight, the effect should be observed by the pilot or the cabin crew member on the ground prior to flying. It should be noted that medication, which is not normally affecting pilot or cabin crew performance, may do so in individuals who are 'oversensitive' to a particular preparation. Individuals are, therefore, advised not to take any medicines before or during flight unless

they are completely familiar with their effects on their own bodies. In cases of doubt, pilots and cabin crew members should consult an AME, AeMC, GMP, OHMP or Medical Assessor, as applicable.

(f) Other treatments

Alternative or complementary medicine, such as acupuncture, homeopathy, hypnotherapy and several other disciplines, is developing and gaining greater credibility. Such treatments are more acceptable in some States than others. There is a need to ensure that 'other treatments', as well as the underlying condition, are declared and considered by the AME, AeMC, GMP, OHMP or Medical Assessor, as applicable when assessing fitness.

AMC1 MED.A.025 Obligations of AeMC, AME, GMP and OHMP

~~(a) The report required in MED.A.025 (b)(4) should detail the results of the examination and the evaluation of the findings with regard to medical fitness.~~

~~(b) The report may be submitted in electronic format, but adequate identification of the examiner should be ensured.~~

(a~~c~~) 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.

(b) The applicant should be made aware that the associated medical certificate or cabin crew attestation may be suspended or revoked if the applicant provides incomplete, inaccurate or false statements to the AeMC, AME, GMP or OHMP on their medical history.

(c) In cases where the AeMC or AME is required to assess the fitness of an applicant for a class 2 medical certificate in consultation with the licensing authority, they should document the consultation in accordance with the procedure established by the competent authority.

(d) The AeMC, AME, GMP or OHMP should give advice to the applicant on treatment and preventive measures if, during the course of the examination, medical conditions are found which may endanger the medical fitness of the applicant in the future.

GM1 MED.A.025 Obligations of AeMC, AME, GMP and OHMP

GUIDELINES FOR THE AeMC, AME OR GMP CONDUCTING THE MEDICAL EXAMINATIONS AND ASSESSMENTS FOR MEDICAL CERTIFICATION OF PILOTS

(a) Before performing the medical examination, the AeMC, AME or GMP should:

(1) verify the applicant's identity by checking their identity card, passport, driving licence or other official document containing a photograph of the applicant;

(2) obtain details of the applicant's flight crew licence from the applicant's licensing authority if they do not have their licence with them;

(3) obtain details of the applicant's most recent medical certificate from the applicant's licensing authority if they do not have their certificate with them;

(4) in the case of an SIC on the existing medical certificate, obtain details of the specific medical condition and any associated instructions from the applicant's licensing authority. This could include, for example, a requirement to undergo a specific examination or test;

(5) except for initial applicants, ascertain, from the previous medical certificate, which routine medical test(s) should be conducted, for example ECG;

(6) provide the applicant with the application form for a medical certificate and the instructions for completion and ask the applicant to complete the form but not to sign it yet;

(7) go through the form with the applicant and give information to help the applicant understand the significance of the entries and ask any questions which might help the applicant to recall important historical medical data;

(8) verify that the form is complete and legible, ask the applicant to sign and date the form and then sign it as well. If the applicant declines to complete the application form fully or declines to sign the declaration consent to the release of medical information, inform the applicant that it may not be possible to issue a medical certificate regardless of the outcome of the clinical examination.

(b) Once all the items in (a) have been addressed, the AeMC, AME or GMP should:

(1) perform the medical examination of the applicant in accordance with the applicable rules;

(2) arrange for additional specialist medical examinations, such as otorhinolaryngology or ophthalmology, to be conducted as applicable and obtain the associated report forms or reports;

(3) complete the medical examination report form in accordance with the associated instructions for completion;

(4) ensure that all of the report forms are complete, accurate and legible.

(c) Once all the actions in (b) have been carried out, the AeMC, AME or GMP should review the report forms and:

(1) if satisfied that the applicant meets the applicable medical requirements as set out in Part-MED, issue a medical certificate for the appropriate class, with limitations if necessary. The applicant should sign the certificate once signed by the AeMC, AME or GMP; or

(2) if the applicant does not meet the applicable medical requirements, or if the fitness of the applicant for the class of medical certificate applied for is in doubt:

(i) refer the decision on medical fitness to, or consult the decision on medical fitness with, the licensing authority or AME in compliance with MED.B.001; or

(ii) deny issuance of a medical certificate, explain to the applicant the reason(s) for denial and inform them of their right of appeal and/or secondary review.

(d) The AeMC, AME or GMP should send the documents as required by MED.A.025(b) to the applicant's licensing authority within five days from the date of the medical examination. If a medical certificate has been denied or the decision has been referred, the documents should be sent to the licensing authority on the same day that the denial or referral decision is reached.

Section 2

Requirements for medical certificates

AMC1 MED.A.030 Medical certificates

(a) A class 1 medical certificate includes the privileges and validities of class 2 and LAPL medical certificates.

(b) A class 2 medical certificate includes the privileges and validities of a LAPL medical certificate.

AMC1 MED.A.035 Application for a medical certificate

When applicants do not present ~~a current or previous~~ the most recent 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.

AMC1 MED.A.045 Validity, revalidation and renewal of medical certificates

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

SUBPART B

Specific requirements for class 1, class 2 and LAPL medical certificates

AMC for class 1, class 2 and LAPL medical certificates

Section 1

General

AMC1 MED.B.001 Limitations to ~~class 1, class 2 and LAPL~~ medical certificates

GENERAL

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

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

(c~~d~~) Entry of limitations

(1) The ~~L~~ limitations ~~1 to 4~~ TML, VDL, VML, VNL and VCL may be imposed by an AME or an AeMC for class 1, class 2, and LAPL medical certificates, or a GMP for LAPL medical certificates.

(2) ~~Limitations 5 to 15~~ All other limitations listed in AMC2 MED.B.001 (a) should only be imposed:

(i) for class 1 medical certificates, by the licensing authority where a referral is required according to MED.B.001;

(ii) for class 2 medical certificates, by the AME or AeMC in consultation with the licensing authority where consultation is required according to MED.B.001;

(iii) for LAPL medical certificates, by an AME or AeMC.

(d~~e~~) Removal of limitations

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

(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.

(3) For LAPL medical certificates, limitations may be removed by an AeMC or AME.

AMC2 MED.B.001 Limitations to medical certificates

LIMITATION CODES

(a~~c~~) The following abbreviations for limitations codes should be used on the medical certificates as applicable:

	Code	Limitation
~~1~~	TML	~~restriction of the~~ Limited period of validity of the medical certificate
~~2~~	VDL	~~c~~ Correction for defective distant vision
~~3~~	VML	~~c~~ Correction for defective distant, intermediate and near vision
~~4~~	VNL	~~c~~ Correction for defective near vision
~~5~~	CCL	~~c~~ Correction by means of contact lenses ~~only~~
~~6~~	VCL	~~v~~ Valid by day only
~~15~~	RXO	~~s~~ Specialist ophthalmological examination(s)
~~14~~	SIC	~~s~~ Specific ~~regular~~ medical examination(s)~~ contact licensing authority~~
~~7~~	HAL	~~valid only when h~~ Hearing aids~~ are worn~~
~~8~~	APL	~~valid only with approved p~~ Prosthesis or prostheses
~~13~~	AHL	~~valid only with approved h~~ Hand controls
	OML	As, or with, qualified co-pilot
~~9~~	OCL	~~valid only as~~ As a qualified co-pilot
	OSL	With a safety pilot and in aircraft with dual controls
~~10~~	OPL	~~valid only w~~ Without passengers ~~(PPL and LAPL only)~~
~~11~~	~~SSL~~	~~special restriction as specified~~
~~12~~	OAL	~~r~~ Restricted to demonstrated aircraft type
~~11~~	SSL	~~s~~ Special restriction as specified

(b) The abbreviations for the limitation codes should be explained to the holder of a medical certificate as follows:

(1) TML Time limitation

The period of validity of the medical certificate is limited to the duration as shown on the medical certificate. This period of validity commences on the date of the medical examination. Any period of validity remaining on the previous medical certificate is no longer valid. The ~~pilot~~ holder of the medical certificate should present him/herself for re-examination when advised and should follow any medical recommendations.

(2) VDL Wear corrective lenses and carry a spare set of spectacles

Correction for defective distant vision: whilst exercising the privileges of the licence, the ~~pilot~~ holder of the medical certificate should wear spectacles or contact lenses that correct for defective distant vision as examined and approved by the AeMC, AME or GMP. Contact lenses may not be worn until cleared to do so by the AeMC, AME or GMP. ~~If contact lenses are worn, a~~ A spare set of spectacles, approved by the AeMC, AME or GMP, should be carried.

(3) VML Wear multifocal spectacles and carry a spare set of spectacles

Correction for defective distant, intermediate and near vision: whilst exercising the privileges of the licence, the ~~pilot~~ holder of the medical certificate should wear spectacles that correct for defective distant, intermediate and near vision as examined and approved by the AeMC, AME or GMP. Contact lenses or full frame spectacles, when either correct for near vision only, may not be worn.

(4) VNL Have available corrective spectacles and carry a spare set of spectacles

Correction for defective near vision: whilst exercising the privileges of the licence, the ~~pilot~~ holder of the medical certificate should have readily available spectacles that correct for defective near vision as examined and approved by the AeMC, AME or GMP. Contact lenses or full frame spectacles, when either correct for near vision only, may not be worn.

(5) CCL Wear contact lenses that correct for defective vision

Correction for defective distant vision: whilst exercising the privileges of the licence, the holder of a medical certificate should wear contact lenses that correct for defective distant vision, as examined and approved by the AeMC or AME. A spare set of similarly correcting spectacles shall be readily available for immediate use whilst exercising the privileges of the applicable licence.

(6) VCL Valid by day only

The limitation allows ~~private pilots~~ holders of a class 2 or LAPL medical certificate with varying degrees of colour deficiency, to exercise the privileges of their licence by daytime only. ~~Applicable to class 2 medical certificates only.~~

(7) RXO Specialist ophthalmological examination(s)

Specialist ophthalmological examination(s), other than the examinations stipulated in Part-MED, are required for a significant reason. ~~The limitation may be applied by an AME but should only be removed by the licensing authority~~.

(8) SIC Specific regular medical examination(s) contact licensing authority

This limitation requires the AeMC, or AME to contact the licensing authority before embarking upon a revalidation or renewal ~~or recertification~~ medical assessment. ~~It~~ The limitation is likely to concern a medical history or additional examination(s) of which the AeMC or AME should be aware prior to undertaking the assessment.

(9) HAL Hearing aid(s)

Whilst exercising the privileges of the licence, the holder of the medical certificate should use hearing aid(s) that compensate for defective hearing as examined and approved.

(10) APL Prosthesis or prostheses

This limitation applies to the holder of a medical certificate with a musculoskeletal condition when a medical flight test or a flight simulator test has shown that the use of a prosthesis is required to safely exercise the privileges of the licence. The prosthesis to be used should be approved.

(11) AHL Hand controls

This limitation applies to the holder of a medical certificate who has a limb deficiency or other anatomical problem which had been shown by a medical flight test or flight simulator testing to be acceptable but to require the aircraft to be equipped with suitable, approved hand controls.

(12) OML ~~Valid only as~~ As or with qualified co-pilot

This limitation applies ~~to crew members~~ holders of a class 1 medical certificate who do not fully meet the medical requirements for single-pilot ~~crew~~ operations, but are fit for multi-pilot ~~crew~~ operations. Refer to MED.B.001(d)(1).

(13) OCL ~~Valid only as~~ As co-pilot

This limitation is an ~~further~~ extension of the OML ~~limitation and is applied when,~~ and applies to holders of a class 1 medical certificate who, for ~~some~~ well-defined medical reason(s), ~~the pilot is assessed as safe to operate in a~~ are restricted to the role of co-pilot. ~~role but not in command. Applicable to class 1 medical certificates only~~.

(14) OSL Valid only with safety pilot and in aircraft with dual controls

This limitation applies to holders of a class 2 or a LAPL medical certificate. ~~The safety pilot is qualified as PIC on the class/type of aircraft and rated for the flight conditions. He/she occupies a control seat, is~~ The safety pilot should be made aware of the type(s) of possible incapacity that the pilot whose medical certificate has been issued with this limitation may suffer and ~~is~~ should be prepared to take over the aircraft controls during flight. Refer to MED.B.001(d)(1). ~~Applicable to class 2 and LAPL medical certificates only~~.

(15) OPL ~~Valid only w~~ Without passengers

This limitation ~~may be considered when a pilot with a musculoskeletal problem, or some other~~ applies to holders of a class 2 or LAPL medical certificate with a medical condition~~,~~ that may ~~involve~~ lead to an increased ~~element~~ level of risk to flight safety when exercising the privileges of the licence. ~~which~~ This risk might be acceptable to the pilot but ~~which~~ is not acceptable for the carriage of passengers. ~~Applicable to class 2 and LAPL medical certificates only.~~ Refer to MED.B.001 (d)(3).

(16) OAL Restricted to demonstrated aircraft type

This limitation ~~may apply~~ applies to a ~~pilot~~ holder of a medical certificate who has a limb deficiency or some other ~~anatomical~~ medical problem which had been shown by a medical flight test or flight simulator testing to be acceptable but to require a restriction to a specific class or type of aircraft.

(17) SSL Special restriction as specified

This limitation may be considered when an individually specified limitation, not defined in this paragraph, is appropriate to mitigate an increased level of risk to flight safety. The description of the SSL should be entered on the medical certificate or in a separate document to be carried with the medical certificate. Refer to MED.B.001(d)(4).

Section 2

Specific requirements for class 1 medical certificates

AMC1 MED.B.010 Cardiovascular system

(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

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

(ii) ~~An~~ Applicants with an accumulation of risk factors (smoking, family history, lipid abnormalities, hypertension, etc.) should ~~require~~ undergo a cardiovascular evaluation by the AeMC or AME, if necessary in consultation with the licensing authority.

(2) Cardiovascular assessment

(i) Reporting of resting and exercise electrocardiograms should be by the AME or an accredited specialist.

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

(c) Peripheral arterial disease

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

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

(2) applicants should be on ~~acceptable~~ appropriate secondary prevention treatment;

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

(d) Aortic aneurysm

(1) Applicants with an aneurysm of the infra-renal abdominal aorta of less than 5 cm in diameter may be assessed as fit before surgery, with an OML ~~multi-pilot limitation~~ subject to satisfactory evaluation by a cardiologist ~~by the licensing authority~~. Follow-up by ultra-sound scans or other imaging techniques, as necessary, should be determined by the licensing authority.

(2) Applicants may be assessed as fit with an OML ~~by the licensing authority~~ after surgery for an aneurysm of the thoracic or abdominal aorta ~~infra-renal aortic aneurysm with a multi-pilot limitation at revalidation~~ if the blood pressure and cardiovascular ~~assessment~~ evaluation are satisfactory. Regular ~~cardiological review~~ evaluations by a cardiologist should be ~~required~~ carried out.

(e) Cardiac valvular abnormalities

(1) Applicants with previously unrecognised cardiac murmurs should undergo 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.

(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.

(3) Aortic valve disease

(i) Applicants with a 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 mmHg may be assessed as fit. Those with mean pressure gradient above~~

~~20 mmHg but not greater than 40 mmHg may be assessed as fit with a multi-pilot limitation. A mean pressure gradient up to 50 mmHg 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.~~

(ii) Applicants with aortic stenosis may be assessed as fit provided the left ventricular function is intact and the mean pressure gradient is less than 20 mmHg. Applicants with an aortic valve orifice of more than 1 cm^2 and a mean pressure gradient above 20 mmHg, but not greater than 50 mmHg, may be assessed as fit with an OML. Follow-up with 2D Doppler echocardiography, as necessary, should be determined by the licensing authority in all cases. Alternative measurement techniques with equivalent ranges may be used. Regular evaluation by a cardiologist should be considered. Applicants with a history of systemic embolism or significant dilatation of the thoracic aorta should be assessed as unfit.

(iii) Applicants with trivial aortic regurgitation may be assessed as fit. A greater degree of aortic regurgitation should require an OML ~~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.

(4) 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 cardio~~lo~~logical review should be determined by the licensing authority.

(iv) Applicants with ~~uncomplicated~~ moderate mitral regurgitation may be considered as fit with an OML ~~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.

(f) Valvular surgery

Applicants ~~with~~ who have undergone cardiac valve replacement ~~/~~ or repair should be assessed as unfit. A fit assessment may be considered ~~by the licensing authority~~ in the following cases:

~~(1) Aortic valvotomy should be disqualifying.~~

(1~~2~~) Mitral leaflet repair for prolapse is compatible with a fit assessment, provided post-operative investigations reveal satisfactory left ventricular function without systolic or diastolic dilation and no more than minor mitral regurgitation.

(2~~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 an OML ~~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 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.

(34) Where anticoagulation is needed after valvular surgery, a fit assessment with an OML ~~multi-pilot limitation~~ may be considered ~~after review by the licensing authority~~, if the haemorrhagic risk is acceptable~~. The review should show that~~ and 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. The INR target range should be determined by the type of surgery performed.

~~(g) Thromboembolic disorders~~

~~Arterial or venous thrombosis or pulmonary embolism are disqualifying whilst anticoagulation is being used initiated 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 and the haemorrhagic risk is acceptable. Pulmonary embolus should require full evaluation. Following cessation of anti-coagulant therapy, for any indication, applicants should require review by the licensing authority.~~

(g) Thromboembolic disorders

Applicants with arterial or venous thrombosis or pulmonary embolism should be assessed as unfit during the first 6 months of anticoagulation. A fit assessment with an OML may be considered after 6 months of stable anticoagulation. 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 and the haemorrhagic risk is acceptable. Applicants with pulmonary embolism should also be evaluated by a cardiologist. Following cessation of anticoagulant therapy, for any indication, applicants should undergo a re-assessment by the licensing authority.

(h) Other cardiac disorders

(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 perfusion imaging/stress echocardiography and 24-hour ambulatory ECG. Coronary angiography may be indicated. Frequent review and an OML ~~multi-pilot limitation~~ may be required after fit assessment.

(2) Applicants with a congenital abnormality of the heart, ~~including those who have undergone surgical correction,~~ should be assessed as unfit. Applicants following surgical correction or with minor abnormalities that are functionally unimportant may be assessed as fit ~~by the licensing authority~~ following cardiological ~~assessment~~evaluation. No cardioactive medication is acceptable. Investigations may include 2D Doppler echocardiography, exercise ECG and 24-hour ambulatory ECG. The potential hazard of any medication should be considered as part of the assessment. Particular attention should be paid to the potential for the medication to mask the effects of the congenital abnormality before or after surgery. Regular cardiological ~~reviews~~ evaluations should be ~~required~~ carried out.

(i) Syncope

(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 perfusion imaging/stress echocardiography or equivalent test should be ~~required~~ carried out;

(ii) a 2D Doppler echocardiogram showing neither 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.

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

(3) Neurological review should be required.

(4) An OML ~~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 OML ~~multi-pilot limitation~~ according to the individual circumstances of the case.

(5) Applicants who experienced loss of consciousness without significant warning should be assessed as unfit.

(j) Blood pressure

(1) The diagnosis of hypertension should require cardiovascular ~~review~~ evaluation to include potential vascular risk factors.

(2) Anti-hypertensive treatment should be agreed by the licensing authority. Acceptable medication 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 re-assessed to verify that the treatment is compatible with the safe exercise of the privileges of the licence ~~held~~.

(k) Coronary artery disease

(1) Chest pain of uncertain cause should require full investigation. Applicants with angina pectoris should be assessed as unfit, whether or not it is abolished by medication.

(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) Applicants with ~~E~~evidence of exercise-induced myocardial ischaemia should be ~~disqualifying~~ assessed as unfit.

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

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

(A) 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. ~~More than two stenoses between 30 % and 50 % within the vascular tree should not be acceptable~~;

(B) 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;

(C) Applicants with ~~A~~ an untreated stenosis greater than 30 % in the left main or proximal left anterior descending coronary artery should ~~not~~ be ~~acceptable~~ assessed as unfit.

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

(A) an exercise ECG showing neither evidence of myocardial ischaemia nor rhythm or conduction disturbance;

(B) 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;

(C) in cases of angioplasty/stenting, a myocardial perfusion scan or stress echocardiogram, or equivalent test, 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, or equivalent test, should also be ~~required~~ carried out;

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

(iii) Follow-up should be annually (or more frequently, if necessary) to ensure that there is no deterioration of the 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.

(A) 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.

(B) In all cases, coronary angiography should be considered at any time if symptoms, signs or non-invasive tests indicate myocardial ischaemia.

(iv) Successful completion of the 6-month or subsequent review will allow a fit assessment with an OML ~~multi-pilot limitation~~.

(l) Rhythm and conduction disturbances

(1) ~~Any~~ Applicants with significant rhythm or conduction disturbance should ~~require~~ undergo evaluation by a cardiologist ~~and appropriate follow-up in the case of~~ before a fit assessment with an OML, as necessary, may be considered. Appropriate follow-up should be carried out at regular intervals. 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 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) 24-hour ECG recording repeated as necessary;

(v) electrophysiological study;

(vi) myocardial perfusion 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 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 an OML ~~multi-pilot limitation~~ for at least one year, unless an electrophysiological study, undertaken at a minimum of 2 months after the ablation, demonstrates satisfactory results. For those whose long-term outcome cannot be assured by invasive or non-invasive testing, an additional period with an OML ~~multi-pilot limitation~~ and/or observation may be necessary.

(4) Supraventricular arrhythmias

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.

(i) Atrial fibrillation/flutter

(A) 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.

(B) For revalidation, applicants may be assessed as fit if cardiological evaluation is satisfactory.

(ii) 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.

(iii) Applicants with Ssymptomatic sino-atrial disease should be ~~disqualifying~~ assessed as unfit.

(5) 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

(i) Applicants with complete right bundle branch block should ~~require~~ undergo a cardiological evaluation on first presentation. A fit assessment may be considered if there is no underlying pathology. ~~and subsequently:~~

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

~~(ii) for revalidation, a fit assessment may be considered if the applicant is under age 40 there is no underlying pathology. A multi-pilot limitation should be applied for 12 months for those over age 40.~~

(ii) Applicants with bifascicular block may be assessed as fit with an OML after a cardiological evaluation. The OML may be considered for removal if an electrophysiological study demonstrates no infra-Hissian block, or a 3-year period of satisfactory surveillance has been completed.

(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 an OML ~~multi-pilot limitation~~ applied, a fit assessment without OML ~~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 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 at revalidation with an OML ~~multi-pilot limitation~~.

(9) Pacemaker

Applicants with a subendocardial pacemaker should be assessed as unfit. A fit assessment with an OML may be considered at revalidation ~~by the licensing authority~~ no sooner than 3 months after insertion ~~and should require~~ provided:

(i) there is no other disqualifying condition;

(ii) a bipolar lead system, programmed in bipolar mode without automatic mode change ~~of the device~~ has been used; and

(iii) that the applicant is not pacemaker dependeant~~;~~.

(iv) that the applicant has a regular follow-up, including a pacemaker check.~~; and~~

~~(v) a multi-pilot limitation.~~

(10) QT prolongation

Applicants with Pprolongation of the QT interval on the ECG associated with symptoms should be ~~disqualifying~~ assessed as unfit. Asymptomatic applicants require cardiological evaluation for a fit assessment and an OML ~~multi-pilot limitation~~ may be required.

GM1 MED.B.010 Cardiovascular system

MITRAL VALVE DISEASE

(a) Minor regurgitation should have evidence of no thickened leaflets or flail chordae and left atrial internal diameter of less than or equal to 4.0 cm.

(b) The following may indicate severe regurgitation:

(1) LV internal diameter (diastole) > 6.0 cm; or

(2) LV internal diameter (systole) > 4.1 cm; or

(3) Left atrial internal diameter > 4.5 cm.

(c) Doppler indices, such as width of jet, backwards extension and whether there is flow reversal in the pulmonary veins may be helpful in assessing severity of regurgitation.

GM2 MED.B.010 Cardiovascular system

VENTRICULAR PRE-EXCITATION

(a) Asymptomatic applicants with pre-excitation may be assessed as fit at revalidation with an OML if they meet the following criteria:

(1) no inducible re-entry;

(2) refractory period > 300 ms;

(3) no induced atrial fibrillation.

(b) There should be no evidence of multiple accessory pathways.

AMC1 MED.B.015 Respiratory system

(a) Examination

(1) Spirometry

A ~~S~~spirometric examination is required for initial examination and on clinical indication. ~~An~~ Applicants with an FEV1/FVC ratio less than 70 % ~~at initial examination~~ should ~~require evaluation~~ be evaluated by a specialist in respiratory disease.

(2) Chest radiography

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

(b) Chronic obstructive ~~airways~~ pulmonary disease

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

(c) Asthma

Applicants with asthma requiring medication or experiencing recurrent attacks of asthma may be assessed as fit if the asthma is considered stable with satisfactory pulmonary function tests and medication is compatible with flight safety. Applicants requiring ~~S~~systemic steroids ~~are disqualifying~~ should be assessed as unfit.

(d) 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.

(e) Sarcoidosis

(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.

(2) Applicants with cardiac sarcoid should be assessed as unfit.

(f) Pneumothorax

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

(i) 1 year following full recovery from a single spontaneous pneumothorax;

(ii) at revalidation, 6 weeks following full recovery from a single spontaneous pneumothorax, with an OML ~~multi-pilot limitation~~;

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

(2) Applicants with a recurrent spontaneous pneumothorax that has not been surgically treated is ~~disqualifying~~ should be assessed as unfit.

(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.

(g) Thoracic surgery

(1) Applicants requiring major thoracic surgery should be assessed as unfit ~~for a minimum of 3 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)~~ until recovery is complete, the applicant is asymptomatic, and the risk of secondary complication is minimal.

(2) A fit assessment following lesser chest surgery may be considered ~~by the licensing authority~~ after satisfactory recovery and full respiratory evaluation.

(h) Sleep apnoea syndrome/sleep disorder

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

AMC1 MED.B.020 Digestive system

(a) Oesophageal varices

Applicants with oesophageal varices should be assessed as unfit.

(b) 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.

(c) Gallstones

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

(2) ~~An a~~Applicants with asymptomatic multiple gallstones may be assessed as fit with an OML ~~multi-pilot limitation~~.

(d) 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.

(e) Peptic ulceration

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

(f) ~~Abdominal~~ Digestive tract and abdominal surgery

~~(1)~~ ~~Abdominal~~ surgery ~~is disqualifying for a minimum of 3 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.~~

~~(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 3 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).~~

Applicants who have undergone a surgical operation:

(1) for herniae; or

(2) on the digestive tract or its adnexa, including a total or partial excision or a diversion of any of these organs,

should be assessed as unfit. 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.

(g) Liver disease

Applicants with morphological or functional liver disease, or after surgery, including liver transplantation, may be assessed as fit subject to satisfactory gastroenterological evaluation.

AMC1 MED.B.025 Metabolic and endocrine systems

(a) Metabolic, nutritional or endocrine dysfunction

Applicants with metabolic, nutritional or endocrine dysfunction may 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.

(b) Obesity

Applicants with a Body Mass Index ≥ 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.

(c) Addison's disease

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

(d) 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.

(e) 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.

(f) 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.

(g) Diabetes mellitus

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

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

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

AMC1 MED.B.030 Haematology

(a) Abnormal haemoglobin

Applicants with abnormal haemoglobin should be investigated.

(b) Anaemia

(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) Applicants with ~~A~~anaemia which is unamenable to treatment ~~is disqualifying~~ should be assessed as unfit.

(c) Erythrocytosis ~~Polycythaemia~~

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

(d) Haemoglobinopathy

(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.

(2) Applicants with sickle cell disease (homozygote) should be assessed as unfit.

(e) Coagulation disorders

(1) 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.

(2) Applicants with thrombocytopenia with a platelet count less than $75x10^9$/L should be assessed as unfit. A fit assessment may be considered once the platelet count is above $75x10^9$/L and stable.

(f) Haemorrhagic disorders

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

(g) Thrombo~~-~~embolic disorders

(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~~ when the applicant is asymptomatic and there is only minimal risk of secondary complication or recurrence.

(2) If anticoagulation is used as treatment, refer to AMC1 MED.B.010 (g).

(3~~2~~) ~~An~~ Applicants with arterial embolus ~~is disqualifying~~ should be assessed as unfit. A fit assessment may be considered once recovery is complete, the applicant is asymptomatic, and there is only minimal risk of secondary complication or recurrence.

(h) Disorders of the lymphatic system

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

(i) Leukaemia

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

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

(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.

(j) 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.

AMC1 MED.B.035 Genitourinary system

(a) Abnormal urinalysis

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

(b) Renal disease

(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) ~~The requirement for~~ Applicants requiring dialysis ~~is disqualifying~~ should be assessed as unfit.

(c) Urinary calculi

(1) Applicants with an asymptomatic calculus or a history of renal colic require investigation.

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

(3) Whilst awaiting assessment or treatment a fit assessment with an OML ~~multi-pilot limitation~~ may be considered.

(4) After successful treatment for a calculus a fit assessment without an OML ~~multi-pilot limitation~~ may be considered.

(5) With parenchymal residual calculi, a fit assessment ~~with a multi-pilot limitation~~ may be considered.

(d) Renal and~~/~~urological surgery

(1) Applicants who have undergone a major surgical operation on the genitourinary system or its adnexa ~~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 ~~for a minimum period of 3 months or until such time as the effects of the operation are no longer likely to cause incapacity in flight~~ until recovery is complete, the applicant is asymptomatic, and the risk of secondary complication is minimal.

(2) After other urological surgery, a fit assessment may be considered ~~if~~ when the applicant is completely asymptomatic and there is only minimal risk of secondary complication or recurrence.

(3~~2~~) An applicant with compensated nephrectomy without hypertension or uraemia may be considered for a fit assessment.

(43) 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 an OML ~~multi-pilot limitation~~.

(54) 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 an OML ~~multi-pilot limitation~~.

AMC1 MED.B.040 Infectious disease

(a) 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.

(b) Tuberculosis

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

(c) Syphilis

Applicants with a~~A~~cute syphilis ~~is disqualifying~~ should be assessed as unfit. A fit assessment may be considered in the case of those fully treated and recovered from the primary and secondary stages.

(d) HIV ~~infection~~ positivity

(1) Applicants who are HIV positive may be assessed as fit ~~is positivity~~ ~~is disqualifying. A fit assessment~~ with an OML ~~multi-pilot limitation may be considered for individuals with stable, non-progressive disease~~ if a full investigation provides no evidence of HIV associated diseases that might give rise to incapacitating symptoms. Frequent review of the immunological status and neurological evaluation by an appropriate specialist ~~is required~~ should be carried out. A cardiological evaluation may also be required, depending on the medication.

(2) ~~The occurrence~~ Applicants with signs or symptoms of AIDS or AIDS-related complex ~~is disqualifying~~ should be assessed as unfit.

(e) Infectious hepatitis

Applicants with Iinfectious hepatitis ~~is disqualifying~~ should be assessed as unfit. A fit assessment may be considered ~~after full recovery~~ once the applicant has become asymptomatic. Regular review of the liver function should be carried out.

AMC1 MED.B.045 Obstetrics and gynaecology

(a) Gynaecological surgery

~~An a~~Applicants who ~~has~~ have undergone a major gynaecological operation should be assessed as unfit ~~for a period of 3 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~~ recovery is complete, the applicant is ~~completely~~ asymptomatic, and ~~there is only a minimal~~ the risk of secondary complication or recurrence is minimal.

~~(b) Severe menstrual disturbances~~

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

(b~~c~~) Pregnancy

(1) A pregnant licence holder may be assessed as fit with an OML ~~multi-pilot limitation~~ during the first 26 weeks of gestation, following review of the obstetric evaluation by the AeMC or AME who should inform the licensing authority.

(2) The AeMC or AME should provide written advice to the applicant and the supervising physician regarding potentially significant complications of pregnancy.

AMC1 MED.B.050 Musculoskeletal system

(a) ~~An a~~Applicants with any significant ~~sequel~~ sequelae from disease, injury or congenital abnormality affecting the bones, joints, muscles or tendons with or without surgery require~~s~~ full evaluation prior to a fit assessment.

(b) In cases of limb deficiency, a fit assessment may be considered following a satisfactory medical flight test or simulator testing.

(c) ~~An a~~Applicants 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. Appropriate limitations ~~to specified aircraft type(s)~~ may ~~be required~~ apply.

(d) Abnormal physique, including obesity, or muscular weakness may require medical flight or flight simulator testing. Particular attention should be paid to emergency procedures and evacuation. Appropriate limitations ~~to specified aircraft type(s)~~ may ~~be required~~ apply.

AMC1 MED.B.055 Psychiatry

(a) Psychotic disorder

~~An a~~Applicants with a history of, or the occurrence of, ~~of~~ a functional psychotic disorder ~~is disqualifying~~ should be assessed as unfit. A fit assessment may be considered if ~~unless~~ a cause can be unequivocally identified as one which is transient, has ceased and ~~will not recur~~ the risk of recurrence is minimal.

(b) Organic mental disorder

Applicants with ~~A~~an organic mental disorder ~~is disqualifying~~ should be assessed as unfit. Once the cause has been treated, an applicant may be assessed as fit following satisfactory psychiatric ~~review~~ evaluation.

(c) Psychotropic substances

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

Applicants who use or abuse psychotropic substances likely to affect flight safety should be assessed as unfit.

(d) Schizophrenia, schizotypal or delusional disorder

Applicants with an established schizophrenia, schizotypal or delusional disorder ~~should~~ may 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.

(e) Mood disorder

Applicants with ~~A~~an established mood disorder ~~is disqualifying~~ should be assessed as unfit. 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~~ stability on maintenance psychotropic medication is confirmed, a fit assessment should require an OML ~~multi-pilot limitation~~. If the dosage of the medication is changed, a further period of unfit assessment should be required.

(f) Neurotic, stress-related or somatoform disorder

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

(g) Personality or behavioural disorders

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

(h) Disorders due to alcohol or other substance use

(1) Applicants with ~~M~~mental or behavioural disorders due to alcohol or other substance use, with or without dependency, ~~are disqualifying~~ should be assessed as unfit.

(2) A fit assessment may be considered after a period of two years of documented sobriety or freedom from substance use. At revalidation or renewal, a fit assessment may be considered earlier with an OML ~~multi-pilot limitation~~. Depending on the individual case, treatment and ~~review~~ evaluation may include:

(i) in-patient treatment of some weeks followed by~~: (A) review~~ psychiatric or psychological evaluation ~~by a psychiatric specialist~~; and

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

(i) Deliberate self-harm

Applicants who have carried out a single self-destructive action or repeated acts of deliberate self-harm ~~are disqualifying~~ should be assessed as unfit. A fit assessment may be considered after full consideration of an individual case and may require psychiatric or psychological ~~review~~ evaluation. Neuropsychological assessment may also be required.

AMC1 MED.B.060 Psychology

(a) Where there ~~is suspicion~~ are signs or is established evidence that an applicant may have ~~has~~ a psychological disorder, the applicant should be referred for psychological opinion and advice.

(b) Established evidence should be verifiable information from an identifiable source ~~which evokes doubts concerning~~ related to 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~~ behaviour or knowledge relevant to the safe exercise of the privileges of the applicable licence.

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

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

AMC1 MED.B.065 Neurology

(a) Epilepsy

(1) Applicants with ~~A~~ a diagnosis of epilepsy ~~is disqualifying~~ should be assessed as unfit~~,~~ 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.

(2) ~~An a~~Applicants may be assessed as fit ~~by the licensing authority~~ with an OML ~~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.

(b) Conditions with a high propensity for cerebral dysfunction

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

(c) Clinical EEG abnormalities

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

(2) Epileptiform paroxysmal EEG abnormalities and focal slow waves should be disqualifying.

(d) Neurological disease

Applicants with a~~A~~ny ~~stationary or progressive~~ disease of the nervous system which ~~has caused or~~ is likely to cause a ~~significant disability~~ hazard to flight safety ~~is disqualifying~~ should be assessed as unfit. However, in certain cases, including cases of minor functional losses associated with ~~stationary~~ stable disease, a fit assessment may be considered after full evaluation.

(e) 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 applicants experiencing a recurrence should be ~~disqualifying~~ assessed as unfit.

(f) Head injury

~~An a~~Applicants 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.

(g) Spinal or peripheral nerve injury, myopathies

~~An a~~Applicants 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~~ evaluation is satisfactory and the provisions of AMC1 MED.B.050 are met ~~and musculoskeletal assessments are satisfactory~~.

(h) Traumatic injury

Applicants with a disorder of the nervous system due to a traumatic injury should be assessed as unfit. A fit assessment may be considered if neurological evaluation is satisfactory and the provisions of AMC1 MED.B.050 are met.

(i) Vascular deficiencies

Applicants with a disorder of the nervous system due to vascular deficiencies including haemorrhagic and ischaemic events should be assessed as unfit. A fit assessment may be considered if neurological evaluation is satisfactory and the provisions of AMC1 MED.B.050 are met.

AMC1 MED.B.070 Visual system

(a) Eye examination

(1) At each aero-medical ~~revalidation~~ examination, an assessment of the visual fitness should be undertaken and the eyes should be examined with regard to possible pathology.

(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.

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

(4) The possible cumulative effect of more than one eye condition should be evaluated by an ophthalmologist.

(b) Comprehensive eye examination

A comprehensive eye 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:

(1) history;

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

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

(4) ocular motility;

(5) binocular vision;

(6~~7~~) visual fields;

(7~~8~~) tonometry on clinical indication; ~~and~~

(8~~9~~) objective refraction: hyperopic initial applicants with a hyperopia of more than +2 dioptres and under the age of 25 should undergo objective refraction in cycloplegia~~.~~;

(9) assessment of contrast; and

(10~~6~~)colour vision~~;~~.

(c) Routine eye examination

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

(1) history;

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

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

(4) further examination on clinical indication.

(d) Refractive error

(1) Applicants with hypermetropia exceeding +5.0 dioptres should be assessed as unfit.

(2~~1~~) ~~At initial examination an a~~Applicants for a class 1 medical certificate may be assessed as fit with:

~~(i) hypermetropia not exceeding +5.0 dioptres;~~

(i~~i~~) myopia not exceeding –6.0 dioptres;

(i~~ii~~) astigmatism not exceeding 2.0 dioptres;

(iiiiv) anisometropia not exceeding 2.0 dioptres

subject to satisfactory ophthalmic evaluation and provided that optimal correction has been considered and no significant pathology is demonstrated.

(32) Initial applicants who do not meet the requirements in (12)(ii), (iii) and (iv) above should be referred to the licensing authority. A fit assessment may be considered following review evaluation by an ophthalmologist.

(43) At Applicants who, for revalidation or renewal examinations do not meet the requirements in (2) above an applicant may be assessed as fit with: subject to satisfactory ophthalmic evaluation and provided that optimal correction has been considered and no significant pathology has been demonstrated.

(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

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

(54) If anisometropia exceeds 3.0 dioptres, contact lenses should be worn.

(65) If the refractive error is between +3.0 to and +5.0 or between −3.0 to and −6.0 dioptres, or there is astigmatism or anisometropia of more than between 2.0 dioptres but less thanand 3.0 dioptres, an review evaluation should be undertaken 5 yearly by an eye specialist.

(76) If the refractive error is greater than −6.0 dioptres, or there is more than 3.0 dioptres of astigmatism or anisometropia exceeds of more than 3.0 dioptres, an review evaluation should be undertaken 2 yearly by an eye specialist.

(87) In cases (5) and (6) above, When an evaluation has been undertaken by an eye specialist, the applicant should supply provide 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.

(e) Uncorrected visual acuity

No limits apply to uncorrected visual acuity.

(f) Substandard vision

(1) Reduced vision in one eye: Applicants for revalidation or renewal 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 opthalmological assessment. A satisfactory medical flight test and a with an OML multi-pilot limitation are required. if:

(i) the binocular visual field is normal;

(ii) the visual acuity of the affected eye is 6/18 (0.3) or better;

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

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

(v) the underlying pathology is acceptable according to ophthalmological assessment; and

(vi) a medical flight test is satisfactory.

(2) Monocularity: ~~An~~ aApplicants for revalidation or renewal who have with acquired ~~substandard vision~~ loss of vision in one eye may be assessed as fit with an OML ~~multi-pilot limitation~~ if:

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

(ii) the ~~better~~ functional 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 applicant should be assessed as unfit;

(iv) there is no significant ocular pathology in the functional eye; and

(v) a medical flight test is satisfactory.

(3) Visual fields

(i) ~~An a~~Applicants with a visual field defect may be assessed as fit if the binocular visual field is normal ~~and the underlying pathology is acceptable to the licensing authority~~.

(ii) In cases of monocularity, applicants for revalidation or renewal may be assessed as fit if the monocular field of vision is normal and subject to satisfactory ophthalmic evaluation.

(g) Keratoconus

Applicants with keratoconus may be assessed as fit if the visual requirements are met with the use of corrective lenses and periodic ~~review~~ evaluation is undertaken by an ophthalmologist.

(h) ~~Heterophoria~~ Binocular function

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

(1) at 6 metres:

2.0 prism dioptres in hyperphoria,

10.0 prism dioptres in esophoria,

8.0 prism dioptres in exophoria

and

(2) at 33 centimetres:

1.0 prism dioptre in hyperphoria,

8.0 prism dioptres in esophoria,

12.0 prism dioptres in exophoria

should be assessed as unfit. A fit assessment may be considered if an orthoptic evaluation demonstrates that ~~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~~.

(i) Eye surgery

The assessment after eye surgery should include an ophthalmological examination.

(1) After refractive surgery, a fit assessment may be considered, provided that:

(i) pre-operative refraction ~~was not greater than~~ did not exceed +5.0 dioptres;

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

(iii) examination of the eye shows no post-operative complications;

(iv) glare sensitivity is within normal standards;

(v) mesopic contrast sensitivity is not impaired;

(vi) ~~review~~ an evaluation is undertaken by an eye specialist.

(2) Following intraocular lens surgery, including c~~C~~ataract surgery, ~~entails unfitness. A~~ a fit assessment may be considered ~~after 3 months~~ once recovery is complete and the visual requirements are met with or without correction. Intraocular lenses should be monofocal and should not impair colour vision and night vision.

(3) Retinal surgery entails unfitness. A fit assessment may be considered 6 months after ~~successful~~ surgery, or earlier if recovery is complete. A fit assessment may also be ~~acceptable~~ considered earlier after retinal laser therapy. Regular ~~Follow~~follow-up by an ophthalmologist should ~~may~~ be required.

(4) Glaucoma surgery entails unfitness. A fit assessment may be considered 6 months after ~~successful~~ surgery or earlier if recovery is complete. Regular f~~F~~ollow-up by an ophthalmologist should~~may~~ be required.

~~(5) For (2), (3) and (4) above, a fit assessment may be considered earlier if recovery is complete.~~

(j) ~~Correcting lenses~~Visual correction

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

AMC1 MED B.075 Colour vision

(a) At revalidation and renewal examinations, 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.

AMC1 MED.B.080 ~~Otorhino-laryngology~~ Otorhinolaryngology (ENT)

(a) Hearing

(1) ~~An a~~Applicants 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.

~~(2) The pure tone audiogram should~~ cover ~~the 500 Hz, 1 000 Hz, 2 000 Hz and 3 000 Hz frequency thresholds.~~

(2~~3~~) ~~An a~~Applicants with hypoacusis should ~~be referred to the licensing authority. A~~ may be assessed as fit ~~assessment may be considered~~ if a speech discrimination test or functional flight deck hearing test demonstrates satisfactory hearing ability. A vestibular function test may be appropriate.

(3~~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.

(4) If noise reducing devices are used, it must be ensured that the requirements are met.

(b) Comprehensive ~~otorhinolaryngological~~ ENT examination

A comprehensive ~~otorhino-laryngological~~ ENT examination should include:

(1) history;

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

(3) tympanometry or equivalent;

(4) clinical assessment of the vestibular system.

(c) Ear conditions

(1) ~~An a~~Applicants 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.

(2) ~~An a~~Applicants 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.

(d) Vestibular disturbance

~~An a~~Applicants 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. Applicants with ~~S~~significant abnormal caloric or rotational vestibular responses ~~are disqualifying~~ should be assessed as unfit. Abnormal vestibular responses should be assessed in their clinical context.

(e) Sinus dysfunction

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

(f) Oral/upper respiratory tract infections

Applicants with ~~A~~ a significant, acute or chronic infection of the oral cavity or upper respiratory tract ~~is disqualifying~~ should be assessed as unfit. A fit assessment may be considered after full recovery.

(g) Speech disorder

Applicants with a ~~A~~ significant disorder of speech or voice ~~is disqualifying~~ should be assessed as unfit.

(h) Air passage restrictions

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

(i) Eustachian tube(s) dysfunction

Applicants with permanent dysfunction of the Eustachian tube(s) may be assessed as fit if ENT evaluation is satisfactory.

AMC1 MED.B.085 Dermatology

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

(b) Systemic effects of radiant or pharmacological treatment for a dermatological condition should be considered before a fit assessment ~~can~~ may be considered.

(c) 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 considered.

AMC1 MED.B.090 Oncology

(a) Applicants who ~~underwent treatment for~~ have been diagnosed with a malignant disease may be assessed as fit ~~by the licensing authority if~~ provided that:

(1) after primary treatment, there is no evidence of residual malignant disease ~~after treatment~~ likely to jeopardise flight safety;

(2) time appropriate to the type of tumour and primary therapy has elapsed ~~since the end of treatment~~;

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

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

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

(b) An OML ~~multi-pilot limitation~~ should be applied as appropriate.

(c) Applicants receiving ongoing chemotherapy or radiation treatment should be assessed as unfit.

(d~~c~~) 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.`

Section 3

Specific requirements for class 2 medical certificates

AMC2 MED.B.010 Cardiovascular system

(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~~ Applicants with an accumulation of risk factors (smoking, family history, lipid abnormalities, hypertension, etc.) should ~~requires~~ undergo a cardiovascular evaluation by the AeMC or AME.

(2) Cardiovascular assessment

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

(c) 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 receiving acceptable secondary prevention treatment, and there is no evidence of myocardial ischaemia.

(d) Aortic aneurysm

(1) Applicants with an aneurysm of the thoracic or abdominal aorta of less than 5 cm in diameter may be assessed as fit with an OSL, subject to satisfactory cardiological evaluation and regular follow-up.

(2) Applicants may be assessed as fit with an OSL after surgery for a thoracic or abdominal aortic aneurysm, subject to satisfactory cardiological evaluation to exclude the presence of coronary artery disease. Regular cardiological evaluations should be carried out.

(e) Cardiac valvular abnormalities

(1) Applicants with previously unrecognised cardiac murmurs ~~require~~ should undergo further cardiological evaluation.

(2) Applicants with minor cardiac valvular abnormalities may be assessed as fit.

(3) Aortic valve disease

(i) Applicants with a 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 in consultation with the licensing authority.

(ii) Applicants with aortic stenosis may be assessed as fit provided the left ventricular function is intact and the mean pressure gradient is less than 20 mmHg. Applicants with an aortic valve orifice of more than 1 cm^2 and a mean pressure gradient above 20 mmHg, but not greater than 50 mmHg, may be assessed as fit with an OSL. Follow-up with 2D Doppler echocardiography, as necessary, should be determined in consultation with the licensing authority in all cases. Alternative measurement techniques with equivalent ranges may be used. Regular cardiological evaluation should be considered. Applicants with a

history of systemic embolism or significant dilatation of the thoracic aorta should be assessed as unfit.

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

(f) Valvular surgery

(1) Applicants who have undergone cardiac valve replacement or repair may be assessed as fit without limitations subject to satisfactory post-operative cardiological evaluation and if ~~post-operative cardiac function and investigations are satisfactory and~~ no anticoagulants are needed.

(2) Where anticoagulation is needed after valvular surgery, a fit assessment with an OSL or OPL ~~limitation~~ may be considered after cardiological ~~review~~ evaluation if the haemorrhagic risk is acceptable. 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. The INR target range should be determined by the type of surgery performed.

(g) Thromboembolic disorders

Applicants with ~~A~~arterial or venous thrombosis or pulmonary embolism ~~are disqualifying~~ should be assessed as unfit ~~whilst~~ during the first 6 months of anticoagulation ~~is being used as treatment. After 6 months of stable anticoagulation as prophylaxis, a~~ A fit assessment with an OSL or OPL ~~limitation~~ may be considered ~~after review~~ in consultation with the licensing authority after 6 months of stable anticoagulation. 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 and the haemorrhagic risk is acceptable. Applicants with ~~P~~ pulmonary ~~embolus~~ embolism should ~~require~~ also undergo a cardiological ~~full~~ evaluation. Following cessation of anticoagulant therapy for any indication, applicants should undergo a re-assessment in consultation with the licensing authority.

(h) Other cardiac disorders

(1) Applicants with a primary or secondary abnormality of the pericardium, myocardium or endocardium may be assessed as ~~un~~fit ~~pending~~ subject to satisfactory cardiological evaluation.

(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~~ evaluation. Cardiological follow-up may be necessary and should be determined in consultation with the licensing authority.

(i) Syncope

Applicants with a history of ~~recurrent~~ vasovagal syncope ~~may be assessed~~ should be assessed as unfit. A fit assessment may be considered in consultation with the licensing authority after a 6-month period without recurrence, provided that cardiological evaluation is satisfactory. Neurological review may be indicated.

(j) 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~~.

(k) Coronary artery disease

(1) Chest pain of uncertain cause requires full investigation.

(2) Applicants with ~~In~~ suspected asymptomatic coronary artery disease should undergo cardiological evaluation which should show no evidence of myocardial ischaemia or significant coronary artery stenosis.

(3) Applicants with evidence of exercise-induced myochardial ischaemia should be assessed as unfit.

(4~~3~~) After an ischaemic cardiac event, or revascularisation, applicants without symptoms should have reduced ~~any~~ cardiovascular risk factors to an appropriate level. Medication, when used to control angina pectoris, is not acceptable. All applicants should be on ~~acceptable~~ appropriate secondary prevention treatment.

(i) A coronary angiogram obtained around the time of, or during, the ischaemic myocardial event and a complete, detailed clinical report of the ischaemic event and of any operative procedures should be available to the AME.

(A) 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. ~~More than two stenoses between 30 % and 50 % within the vascular tree should not be acceptable.~~

(B) 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.

(C) Applicants with ~~A~~ an untreated stenosis greater than 30 % in the left main or proximal left anterior descending coronary artery should ~~not~~ be ~~acceptable~~ assessed as unfit.

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

(A) an exercise ECG showing neither evidence of myocardial ischaemia nor rhythm disturbance;

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

(C) in cases of angioplasty/stenting, a myocardial perfusion scan or stress echocardiogram, or equivalent test, which should show no evidence of reversible myocardial ischaemia. If there is doubt about revascularisation in myocardial infarction or bypass grafting, a perfusion scan, or equivalent test, should also be ~~required~~ carried out;

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

(iii) Periodic follow-up should include a cardiological ~~review~~ evaluation.

(A) After coronary artery 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 an OSL ~~safety pilot limitation~~.

(B) In all cases, coronary angiography should be considered at any time if symptoms, signs or non-invasive tests indicate myocardial ischaemia.

(iv) Successful completion of the six month or subsequent review will allow a fit assessment. Applicants may be assessed as fit with an OSL ~~safety pilot limitation~~ having successfully completed only an exercise ECG.

(5~~4~~) Applicants with ~~A~~angina pectoris ~~is disqualifying~~ should be assessed as unfit, whether or not it is abolished by medication.

(l) Rhythm and conduction disturbances

Any significant rhythm or conduction disturbance should require cardiological evaluation and an appropriate follow-up before a fit assessment may be considered. 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 2 months after the ablation.

(2) Supraventricular arrhythmias

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

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

(iii) 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

(i) Applicants with first degree and Mobitz type 1 AV block may be assessed as fit.

(ii) 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~~ evaluation.

(6) Ventricular pre-excitation

Asymptomatic applicants with ventricular pre-excitation may be assessed as fit subject to satisfactory cardiological evaluation.

(7) Pacemaker

Applicants with a subendocardial pacemaker ~~may~~ should be assessed as unfit. A fit assessment may be considered no sooner than 3 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~~ has been used;

(iii) that the applicant is not pacemaker dependeant; and

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

(m) Heart or heart/lung transplantation

(1) Applicants who have undergone heart or lung transplantation may be assessed as fit, with appropriate limitations such as OSL or OPL, no sooner than 12 months after transplantation, provided that cardiological evaluation is satisfactory with:

(i) no rejection in the first year following transplantation;

(ii) no significant arrhythmias;

(iii) a left ventricular ejection fraction ≥ 0.5;

(iv) a symptom limited exercise ECG; and

(v) a coronary angiogram if indicated;

(2) Regular cardiological evaluations should be carried out.

(3) Applicants who have undergone a combined heart and lung transplantation should be assessed as unfit.

GM3 MED.B.010 Cardiovascular system

MITRAL VALVE DISEASE

(a) Minor regurgitation should have evidence of no thickened leaflets or flail chordae and left atrial internal diameter of less than or equal to 4.0 cm.

(b) The following may indicate severe regurgitation:

(1) LV internal diameter (diastole) > 6.0 cm; or

(2) LV internal diameter (systole) > 4.1 cm; or

(3) Left atrial internal diameter > 4.5 cm.

(c) Doppler indices, such as width of jet, backwards extension and whether there is flow reversal in the pulmonary veins may be helpful in assessing severity of regurgitation.

GM4 MED.B.010 Cardiovascular system

VENTRICULAR PRE-EXCITATION

(a) Asymptomatic applicants with pre-excitation may be assessed as fit at revalidation with an OML if they meet the following criteria:

(1) no inducible re-entry;

(2) refractory period > 300 ms;

(3) no induced atrial fibrillation.

(b) There should be no evidence of multiple accessory pathways.

AMC2 MED.B.015 Respiratory system

(a) ~~Chest radiography~~ Examination

(1) A spirometric examination should be performed on clinical indication. Applicants with an FEV1/FVC ratio of less than 70 % should be evaluated by a specialist in respiratory disease.

(2~~1~~) Posterior/anterior chest radiography may be required if ~~indicated on clinical grounds~~ clinically or epidemiologically indicated.

(b) Chronic obstructive ~~airways~~ pulmonary disease

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

(c) 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. Applicants requiring ~~S~~systemic steroids should be ~~disqualifying~~ assessed as unfit.

(d) Inflammatory disease

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

(e) Sarcoidosis

(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.

(2) Applicants with cardiac sarcoid should be assessed as unfit.

(f) Pneumothorax

(1) Applicants with spontaneous pneumothorax should be assessed as unfit. A fit assessment may be considered if respiratory evaluation is satisfactory and:

(i) six weeks following full recovery from a single spontaneous pneumothorax;

(ii) ~~or~~ following ~~recovery from~~ surgical intervention in the case of ~~treatment for~~ a recurrent pneumothorax, provided there is satisfactory recovery.

(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.

(g) 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)~~ until recovery is complete, the applicant is asymptomatic, and the risk of secondary complication is minimal.

(h) Sleep apnoea syndrome

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

AMC2 MED.B.020 Digestive system

(a) Oesophageal varices

Applicants with oesophageal varices should be assessed as unfit.

(b) Pancreatitis

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

(c) Gallstones

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

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

(d) 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 applicable licence(s).

(e) Peptic ulceration

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

(f) ~~Abdominal~~ Digestive tract and abdominal surgery

~~(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.~~

~~(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).~~

Applicants who have undergone a surgical operation:

(1) for herniae; or

(2) on the digestive tract or its adnexa, including a total or partial excision or diversion of any of these organs,

should be assessed as unfit. 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.

(g) Liver disease

Applicants with morphological or functional liver disease, or after surgery, including liver transplantation, may be assessed as fit subject to satisfactory gastroenterological evaluation.

AMC2 MED.B.025 Metabolic and endocrine systems

(a) Metabolic, nutritional or endocrine dysfunction

Applicants with ~~M~~metabolic, nutritional or endocrine dysfunction ~~is disqualifying~~ should be assessed as unfit. A fit assessment may be considered if the condition is asymptomatic, clinically compensated and stable.

(b) 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).

(c) 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.

(d) Gout

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

(e) Thyroid dysfunction

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

(f) 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.

(g) Diabetes mellitus

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

AMC2 MED.B.030 Haematology

(a) Abnormal haemoglobin

Haemoglobin should be tested when clinically indicated.

(b) Anaemia

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

(c) Erythrocytosis ~~Polycythaemia~~

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

(d) Haemoglobinopathy

Applicants with a haemoglobinopathy 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.

(e) Coagulation and haemorrhagic disorders

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

(f) Thrombo–embolic disorders

Applicants with a thrombotic disorder may be assessed as fit if there is ~~no~~ minimal likelihood of significant clotting episodes. If anticoagulation is used as treatment, refer to AMC2 MED.B.010 (g).

(g) Disorders of the lymphatic system

Applicants with significant enlargement of the lymphatic glands or haematological disease 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.

(h) Leukaemia

(1) Applicants with acute leukaemia may be assessed as fit once in established remission.

(2) Applicants with chronic leukaemia may be assessed as fit after a period of demonstrated stability.

(3) In cases (1) and (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. Regular follow-up is required.

(i) 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.

AMC2 MED.B.035 Genitourinary system

(a) Renal disease

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

(b) Urinary calculi

(1) Applicants presenting with one or more urinary calculi should be assessed as unfit.

(2) Applicants with an asymptomatic calculus or a history of renal colic require investigation.

(3) While awaiting assessment or treatment, a fit assessment with an OSL ~~safety pilot limitation~~ may be considered.

(4) After successful treatment the applicant may be assessed as fit.

(5) Applicants with parenchymal residual calculi may be assessed as fit.

(c) Renal and ~~/~~urological surgery

(1) Applicants who have undergone a major surgical operation on the genitourinary system or its adnexa ~~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.~~ recovery is complete, the applicant is asymptomatic, and the risk of secondary complication is minimal.

(2) After other urological surgery, a fit assessment may be considered when ~~if~~ the applicant is completely asymptomatic~~,~~ and there is only minimal risk of secondary complication or recurrence ~~presenting with renal disease, if blood pressure is satisfactory and renal function is acceptable. The requirement for dialysis is disqualifying~~.

(3~~2~~) ~~An a~~Applicants with compensated nephrectomy without hypertension or uraemia may be assessed as fit.

(4~~3~~) Applicants who have undergone renal transplantation may be considered for a fit assessment if it is fully compensated and with only minimal immuno-suppressive therapy.

(5~~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.

AMC2 MED.B.040 Infectious diseases

(a) Tuberculosis

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

(b) ~~HIV infection~~ HIV positivity

~~A fit assessment may be considered for 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.~~

(1) Applicants who are HIV positive may be assessed as fit if a full investigation provides no evidence of HIV associated diseases that might give rise to incapacitating symptoms. Frequent review of the immunological status and neurological evaluation by an appropriate specialist should be carried out. A cardiological evaluation may be required, depending on the medication.

(2) Applicants with signs or symptoms of AIDS or AIDS-related complex should be assessed as unfit.

AMC2 MED.B.045 Obstetrics and gynaecology

(a) Gynaecological surgery

~~An a~~Applicants who ~~has~~ have 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)~~ recovery is complete, the applicant is asymptomatic, and the risk of secondary complication or recurrence is minimal.

(b) Pregnancy

(1) A pregnant licence holder may be assessed as fit during the first 26 weeks of gestation following satisfactory obstetric evaluation.

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

AMC2 MED.B.050 Musculoskeletal system

(a) ~~An a~~Applicants with any significant ~~sequel~~ sequelae from disease, injury or congenital abnormality affecting the bones, joints, muscles or tendons with or without surgery should require full evaluation prior to fit assessment.

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

(c) ~~An a~~Applicants 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. Appropriate limitations ~~to specified aircraft type(s)~~ may ~~be required~~ apply.

(d) Abnormal physique or muscular weakness may require a satisfactory medical flight test. Appropriate limitations ~~to specified aircraft type(s)~~ may ~~be required~~ apply.

AMC2 MED.B.055 Psychiatry

(a) Psychotic disorder

Applicants with a ~~A~~ history of, or the occurrence of, ~~of~~ a functional psychotic disorder ~~is disqualifying~~ should be assessed as unfit. A fit assessment may be considered if ~~unless in certain rare cases~~ a cause can be unequivocally identified as one which is transient, has ceased and ~~will not recur~~ the risk of recurrence is minimal.

(b) Organic mental disorder

Applicants with an organic mental disorder should be assessed as unfit. Once the cause has been treated, an applicant may be assessed as fit following satisfactory psychiatric evaluation.

(~~c~~b) Psychotropic substances

Applicants who ~~U~~use or abuse ~~of~~ psychotropic substances likely to affect flight safety ~~is disqualifying~~ should be assessed as unfit. If a stable maintenance psychotropic medication is confirmed, a fit assessment with an OSL ~~limitation~~ may be considered.

(~~d~~c) Schizophrenia, schizotypal or delusional disorder

~~An a~~Applicants 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.

(e) Mood disorder

Applicants with an established mood disorder should be assessed as unfit. 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 stability on maintenance psychoactive medication is confirmed, a fit assessment with appropriate limitation(s) may be considered. If the dosage of the medication is changed, a further period of unfit assessment should be required.

(f) Neurotic, stress-related or somatoform disorder

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

(g) Personality or behavioural disorders

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

(h~~d~~) Disorders due to alcohol or other psychoactive substance use or misuse

(1) Applicants with ~~M~~mental or behavioural disorders due to alcohol or other psychoactive substance use or misuse, with or without dependency, ~~are disqualifying~~ should be assessed as unfit.

(2) A fit assessment may be considered ~~in consultation with the licensing authority~~ after a period of two years documented sobriety or freedom from psychoactive substance use or misuse. ~~A~~ At revalidation or renewal, a fit assessment may be considered earlier with an OSL or OPL ~~limitation~~. Depending on the individual case, treatment and ~~review~~ evaluation may include:

(i) in-patient treatment of some weeks followed by ~~: (A)review~~ an evaluation by a psychiatric specialist; and

(ii~~B~~) ongoing ~~review~~ checks, including blood testing and peer reports, which may be required indefinitely.

(i) Deliberate self-harm

Applicants who have carried out a single self-destructive action or repeated acts of deliberate self-harm should be assessed as unfit. A fit assessment may be considered after full consideration of an individual case and may require psychiatric or psychological evaluation. Neuropsychological assessment may also be required.

AMC2 MED.B.060 Psychology

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

AMC2 MED.B.065 Neurology

(a) Epilepsy

~~An a~~Applicants may be assessed as fit if:

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

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

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

(b) Conditions with a high propensity for cerebral dysfunction

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

(c) Neurological disease

~~Any stationary or progressive~~ Applicants with any disease of the nervous system which ~~has caused or~~ is likely to cause a ~~significant disability is disqualifying~~ hazard to flight safety should be assessed as unfit. However, ~~In~~ in certain cases, including cases of ~~minor~~ functional loss associated with ~~stationary~~ stable disease, a fit assessment may be considered after full evaluation, including a medical flight test.

(d) Head injury

~~An a~~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.

(e) Traumatic injury

Applicants with a disorder of the nervous system due to a traumatic injury should be assessed as unfit. A fit assessment may be considered if neurological evaluation is satisfactory and the provisions of AMC2 MED.B.050 are met.

(f) Vascular deficiencies

Applicants with a disorder of the nervous system due to vascular deficiencies including haemorrhagic and ischaemic events should be assessed as unfit. A fit assessment may be considered if neurological evaluation is satisfactory and the provisions of AMC2 MED.B.050 are met.

AMC2 MED.B.070 Visual system

(a) Eye examination

(1) At each aero-medical 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.

(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) colour vision;

(viii) further examination on clinical indication.

(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.

(b) Routine eye examination

A routine eye examination should include:

(1) history;

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

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

(4) further examination on clinical indication.

~~(c) Visual acuity~~

~~In an applicant with amblyopia, the visual acuity of the amblyopic eye should 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.~~

~~(d) Substandard vision~~

~~(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.~~

~~(2) An applicant with substandard vision in one 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.~~

~~(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.~~

(c) Visual acuity

(1) ~~In a~~ Applicants with ~~amblyopia~~ reduced visual acuity in one eye may be assessed as fit if:

(i) the visual acuity of the ~~amblyopic~~ affected eye ~~should be~~ is 6/18 (~~0,3~~ 0.3) or better;

(ii) ~~The applicant may be assessed as fit, provided the visual acuity in~~ the ~~other~~ better eye ~~is~~ achieves distant visual acuity of 6/6 (~~1,0~~ 1.0), corrected or uncorrected;

(iii)~~(d)(2)(iii)~~ the better eye achieves intermediate visual acuity of N14 and N5 for near;

(iv) ~~or better, with or without correction, and~~ there is no significant ocular pathology in the better eye ~~can be demonstrated~~;

(v)~~(d)(3)~~ the binocular visual field is normal; and

(vi)~~(d)(2)~~a medical flight test is satisfactory.

(2) Monocularity

Applicants with acquired loss of vision in one eye, may be assessed as fit if:

(i) a period of adaptation time has passed from the known point of visual loss, during which time the applicant should be assessed as unfit;

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

(iii) the functional eye achieves intermediate visual acuity of N14 and N5 for near;

(iv) there is no significant ocular pathology in the functional eye; and

(v) a medical flight test is satisfactory.

(d) ~~Substandard vision~~ Binocular function

~~(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.

~~(2) An applicant with substandard vision in one 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.~~

~~(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.~~

(e) Eye surgery

(1) The assessment after eye surgery should include an ophthalmological examination.

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

(3) After cataract, retinal or glaucoma surgery a fit assessment may be considered once recovery is complete and the visual requirements are met with or without correction.

(f) Correcting lenses

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

AMC2 MED B.075 Colour vision

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

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

(c~~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.

AMC2 MED.B.080 ~~Otorhino-laryngology~~ Otorhinolaryngology (ENT)

(a) Hearing

(1) ~~An a~~Applicants 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.

(2) ~~An a~~Applicants with hypoacusis may 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.~~

(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.

(4) Applicants with profound deafness or major disorder of speech, or both, may be assessed as fit with an SSL, such as 'limited to areas and operations where the use of

radio is not mandatory'. The aircraft should be equipped with appropriate alternative warning devices in lieu of sound warnings.

(b) Examination

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

(c) Ear conditions

(1) ~~An a~~Applicants 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.

(2) ~~An a~~Applicants 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 which does not interfere with the normal function of the ear may be considered for a fit assessment.

(d) Vestibular disturbance

~~An a~~Applicants with disturbance of vestibular function should be assessed as unfit pending full recovery.

(e) Sinus dysfunction

~~An a~~Applicants with any dysfunction of the sinuses should be assessed as unfit pending full recovery.

(f) Oral/upper respiratory tract infections

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

(g) Speech disorder

Applicants with a ~~A~~ significant disorder of speech or voice should be ~~disqualifying~~ assessed as unfit.

(h) Air passage restrictions

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

(i) Eustachian tube dysfunction

~~An a~~Applicants with ~~significant~~ permanent dysfunction of the Eustachian tube(s) may be assessed as fit ~~in consultation with the licensing authority~~ if ENT evaluation is satisfactory.

AMC2 MED.B.085 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 ~~can~~ may be considered.

AMC2 MED.B.090 Oncology

(a) Applicants who have been diagnosed with a malignant disease may be considered for a fit assessment ~~after treatment for malignant disease if~~ provided that:

(1) after primary treatment, there is no evidence of residual malignant disease ~~after treatment~~ likely to jeopardise flight safety;

(2) time appropriate to the type of tumour and primary therapy has elapsed ~~since the end of treatment~~;

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

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

~~(5) special attention is paid to applicants who have received anthracyline chemotherapy;~~

(5~~6~~) arrangements for an oncological follow-up have been made for an appropriate period of time.

(b) Applicants receiving ongoing chemotherapy or radiation treatment should be assessed as unfit.

(c~~b~~) 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.

Section 4

Specific requirements for LAPL medical certificates

AMC1 MED.B.095 Medical examination and/or assessment of applicants for LAPL medical certificates

When a specialist evaluation is required under this section, the aero-medical assessment of the applicant should be performed by an AeMC, an AME or, in the case of AMC 5(d), by the licensing authority.

AMC2 MED.B.095 Cardiovascular system

(a) Examination

Pulse and blood pressure should be recorded at each examination.

(b) General

(1) Cardiovascular risk factor assessment

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

(2) Aortic aneurysm

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

(3) Cardiac valvular abnormalities

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

(ii) Applicants with a cardiac valvular abnormality may be assessed as fit subject to satisfactory cardiological evaluation.

(4) Valvular surgery

After cardiac valve replacement or repair, a fit assessment may be considered ~~if~~ subject to satisfactory post-operative cardiological evaluation ~~cardiac function and investigations are satisfactory~~. Anticoagulation, if needed, should be stable and the haemorrhagic risk should be acceptable.

(5) Other cardiac disorders~~:~~

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

(ii) Applicants with symptomatic hypertrophic cardiomyopathy should be assessed as unfit.

(c) Blood pressure

(1) 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.

(2) 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.

(d) Coronary artery disease

(1) Applicants with suspected myocardial ischaemia should ~~be investigated~~ undergo a cardiological evaluation before a fit assessment ~~can~~ may be considered.

(2) Applicants with angina pectoris requiring medication for cardiac symptoms should undergo a cardiological evaluation before a fit assessment may be considered ~~be assessed as unfit~~.

(3) After an ischaemic cardiac event, including myocardial infarction or revascularisation, applicants without symptoms should have reduced ~~any~~ cardiovascular 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) In cases under (1), (2) and (3) 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.

(e) Rhythm and conduction disturbances

(1) 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~~ licence.

(2) 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.

(3) Pacemaker

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

AMC3 MED.B.095 Respiratory system

(a) Asthma and chronic obstructive ~~airways~~ pulmonary disease

Applicants with asthma or ~~minor~~ impairment of pulmonary function may be assessed as fit ~~if~~ provided that the condition is considered stable with satisfactory pulmonary function and medication is compatible with flight safety. Systemic steroids may be ~~disqualifying~~ acceptable ~~depending on~~ provided that the dosage ~~needed~~ required is acceptable and ~~corresponding~~ there are no adverse side effects.

(b) Sarcoidosis

(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.

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

(c) Pneumothorax

(1) 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~~ intervention for a recurrent pneumothorax.

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

(d) Thoracic surgery

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

(e) Sleep apnoea syndrome/sleep disorder

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

AMC4 MED.B.095 Digestive system

(a) Gallstones

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

(b) 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.

(c) Peptic ulceration

Applicants with peptic ulceration may be assessed as fit subject to satisfactory gastroenterological evaluation.

(d~~c~~) Digestive tract and a~~A~~bdominal surgery

Applicants who have undergone a surgical operation:

(1) for herniae: or

(2) on the digestive tract or its adnexa, including a total or partial excision or diversion of any of these organs,

should be assessed as unfit. A fit assessment may be considered if ~~may be assessed as fit provided~~ recovery is complete~~, they are~~ the applicant is asymptomatic, and there is only a minimal risk of secondary complication or recurrence.

(e~~d~~) Pancreatitis

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

(f) Liver disease

Applicants with morphological or functional liver disease or after surgery, including liver transplantation, may be assessed as fit subject to satisfactory gastroenterological evaluation.

AMC5 MED.B.095 Metabolic and endocrine systems

(a) 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.

(b) Obesity

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

(c) Thyroid dysfunction

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

(d) Diabetes mellitus

(1) ~~The use of~~ Applicants using antidiabetic medications that are not likely to cause hypoglycaemia ~~should be acceptable for a~~ may be assessed as fit ~~assessment~~.

(2) Applicants with diabetes mellitus Type 1 should be assessed as unfit.

(3) Applicants with diabetes mellitus Type 2 treated with insulin may be assessed as fit with limitations for revalidation if blood sugar control has been achieved and the process under (e) and (f) below is followed. An OPL or SSL, stipulating that if passengers are carried, an OSL applies, ~~OSL limitation~~ is required. A TML ~~limitation~~ for 12 months may be needed to ensure compliance with the follow-up requirements

below. Licence privileges should not include rotary aircraft flying ~~be restricted to aeroplanes and sailplanes only~~.

(e) Aero-medical assessment by, or under the guidance of, the licensing authority:

(1) A diabetology review at yearly intervals, including:

(i) symptom review;

(ii) review of data logging of blood sugar;

(iii) cardiovascular status. Exercise ECG at age 40, at 5-yearly intervals thereafter and on clinical indication, including an accumulation of risk factors;

(iv) nephropathy/ nephropathy status.

(2) Ophthalmological review at yearly intervals, including:

(i) visual fields — - Humphrey-perimeter;

(ii) retinas — - full dilatation slit lamp and documentation;

(~~iii~~iii) cataract — - clinical screening.

The development of retinopathy requires a full ophthalmological review.

(3) Blood testing at 6-monthly intervals:

(i) HbA1c; target is 7,5–8,5 %;

(ii) renal profile;

(iii) liver profile;

(iv) lipid profile.

(4) Applicants should be assessed as temporarily unfit after:

(i) changes of medication/insulin leading to a change to the testing regime until stable blood sugar control can be demonstrated;

(ii) a single unexplained episode of severe hypoglycaemia until stable blood sugar control can be demonstrated.

(5) Applicants should be assessed as unfit in the following cases:

(i) loss of hypoglycaemia awareness;

(ii) development of retinopathy with any visual field loss;

(iii) significant nephropathy;

(iv) any other complication of the disease where flight safety may be jeopardised.

(f) Pilot responsibility

Blood sugar testing is carried out during non-operational and operational periods. A whole blood glucose measuring device with memory should be carried and used. Equipment for continuous glucose monitoring (CGMS) should not be used. Pilots should prove to the AME or AeMC or licensing authority that testing has been performed as indicated below and with which results.

(1) Testing during non-operational periods: normally 3–4 times/day or as recommended by the treating physician, and on any awareness of hypoglycaemia.

(2) Testing frequency during operational periods:

(i) 120 minutes before departure;

(ii) <30 minutes before departure;

(iii) 60 minutes during flight;

(iv) 30 minutes before landing.

(3) Actions following glucose testing:

(i) 120 minutes before departure: if the test result is >15 mmol/l, piloting should not be commenced.

(ii) 10–15g of carbohydrate should be ingested and a re-test performed within 30 minutes if:

(A) any test result is <4,5 mmol/l;

(B) the pre-landing test measurement is missed or a subsequent go-around/diversion is performed.

GM1 MED.B.095 Diabetes mellitus Type 2 treated with insulin

GENERAL

(a) Pilots and their treating physician should be aware that if the HbA1c target level was set to normal (non-diabetic) levels, this will significantly increase the chance of hypoglycaemia. For safety reasons the target level of HbA1c is therefore set to 7,5–8,5 % even though there is evidence that lower HbA1c levels are correlated with fewer diabetic complications.

(b) The safety pilot should be briefed pre-flight on the potential condition of the pilot. The results of blood sugar testing before and during flight should be shared with the safety pilot for the acceptability of the values obtained.

GM2 MED.B.095 Diabetes mellitus Type 2 treated with insulin

CONVERSION TABLE FOR HbA1c IN % AND MMOL/MOL

HbA1c in %	HbA1c in mmol/mol
4,7	28
5,0	31
5,3	34
5,6	38
5,9	41
6,2	44
6,5	48
6,8	51
7,4	57
8,0	64
8,6	70
9,2	77
9,8	84
10,4	90
11,6	103

AMC6 MED.B.095 Haematology

Applicants with a haematological condition, such as:

(a) abnormal haemoglobin including, but not limited to, anaemia, erythrocytosis ~~polycythaemia~~ or haemoglobinopathy;

(b) coagulation, haemorrhagic or thrombotic disorder;

(c) significant lymphatic enlargement;

(d) acute or chronic leukaemia;

(e) ~~enlargement of the spleen~~ splenomegaly;

may be assessed as fit subject to satisfactory aero-medical evaluation. If anticoagulation is being used as treatment, refer to AMC2 MED.B.095 (b)(4).

AMC7 MED.B.095 Genitourinary system

(a) Applicants with a genitourinary disorder, such as:

(1) renal disease; or

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

may be assessed as fit subject to satisfactory renal and~~/~~urological evaluation, as applicable.

(b) Applicants who have undergone a major surgical operation ~~in~~ on the genitourinary ~~apparatus~~ system or its adnexa may be assessed as fit following ~~full~~ recovery.

(c) Applicants who have undergone renal transplantation may be assessed as fit subject to satisfactory renal evaluation.

AMC8 MED.B.095 Infectious disease

(a) ~~HIV infection: a~~Applicants who are HIV positive may be assessed as fit ~~if investigation provides no evidence of clinical disease~~ subject to satisfactory aero-medical evaluation.

(b) Applicants with other chronic infections may be assessed as fit provided the infections are not likely to interfere with the safe exercise of the privileges of the licence.

AMC9 MED.B.095 Obstetrics and gynaecology

(a) Pregnancy

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

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

AMC10 MED.B.095 Musculoskeletal system

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

AMC11 MED.B.095 Psychiatry

(a) Applicants with a mental or behavioural disorder due to alcohol or other psychoactive substance use or misuse, with or without dependency, should be assessed as unfit. ~~pending recovery and freedom from substance use and subject to satisfactory psychiatric evaluation after treatment.~~ A fit assessment may be considered after a period of two years documented sobriety or freedom from psychoactive substance use or misuse. At revalidation or renewal, a fit assessment may be considered earlier. Depending on the individual case, treatment and review may include:

(1) in-patient treatment of some weeks followed by an evaluation by a psychiatric specialist; and

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

(b) Applicants with a history of, or the occurrence of, a functional psychotic disorder should be assessed as unfit. A fit assessment may be considered if a cause can be unequivocally identified as one which is transient, has ceased, and the risk of recurrence is minimal.

(c~~b~~) Applicants with an established history or clinical diagnosis of schizophrenia, schizotypal or delusional disorder should be assessed as unfit. A fit assessment may only be considered 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 and the risk of recurrence is low.

(d~~c~~) Psychotropic substances

Applicants who ~~U~~use or abuse ~~of~~ psychotropic substances likely to affect flight safety should be assessed as unfit ~~is disqualifying~~. ~~If a stable maintenance psychotropic medication is confirmed, a fit assessment with an appropriate limitation may be considered.~~ If stability on maintenance psychoactive medication is confirmed, a fit assessment with an operational limitation, as appropriate may be considered. If the dosage of the medication is changed, a further period of unfit assessment should be required.

(e~~d~~) Applicants with a psychiatric condition, such as:

(1) mood disorder;

(2) neurotic disorder;

(3) personality disorder;

(4) mental or behavioural disorder

should undergo satisfactory psychiatric evaluation before a fit assessment may be considered.

(fe) Applicants with a history of significant or repeated acts of deliberate self-harm should undergo satisfactory psychiatric and/or psychological evaluation before a fit assessment ~~can~~ may be considered.

(g) Psychiatric evaluations may include reports from the applicant's flight instructor.

AMC12 MED.B.095 Psychology

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

AMC13 MED.B.095 Neurology

(a) Epilepsy and seizures

(1) Applicants with an established diagnosis of and under treatment for epilepsy should be assessed as unfit. A re-assessment after all treatment has been stopped for at least 5 years should include a neurological evaluation.

(2) 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.

(b) Neurological disease

~~(1)~~Applicants with any ~~stationary or progressive~~ disease of the nervous system which ~~has caused or~~ is likely to cause a hazard to flight safety ~~significant disability~~ should be assessed as unfit. ~~The AME or AeMC should assess these applicants 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. (2)~~ However, ~~In~~ in certain cases, including cases of ~~minor~~ functional loss associated with ~~stationary~~ stable disease, a fit assessment may be considered after full evaluation including, if necessary, a medical flight test.

(c) 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.

(d) 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 is satisfactory and the provisions of AMC10 MED.B.095 are met ~~and musculoskeletal assessments are satisfactory~~.

(e) Traumatic injury

Applicants with a disorder of the nervous system due to a traumatic injury should be assessed as unfit. A fit assessment may be considered if neurological evaluation is satisfactory and the provisions of AMC10 MED.B.095 are met.

(f) Vascular deficiencies

Applicants with a disorder of the nervous system due to vascular deficiencies including haemorrhagic and ischaemic events should be assessed as unfit. A fit assessment may be considered if neurological evaluation is satisfactory and the provisions of AMC10 MED.B.095 are met.

AMC14 MED.B.095 Visual system

(a) Applicants 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 the privileges of the applicable licence(s).

(b) Eye examination

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

(c) Visual acuity

(1) Visual acuity with or without corrective lenses should be 6/9 (0,7) binocularly and 6/12 (0,5) in each eye.

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

(3) Applicants should be able to read, binocularly, an N5 chart (or equivalent) at 30–50 cm~~s~~ and an N14 chart (or equivalent) at 100 cm~~s~~, with correction if prescribed.

(d~~c~~) Substandard vision including monocularity

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

(1) achieves distant visual acuity of 6/6 (1,0), corrected or uncorrected;

(2) achieves distant visual acuity less than 6/6 (1,0) but not less than 6/9 (0,7), after ophthalmological evaluation.

(e~~d~~) Visual field defects

Applicants with a visual field defect may be assessed as fit if the binocular visual field or, in the case of monocularity, the monocular visual field is ~~normal~~ acceptable.

(f~~e~~) Eye surgery

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

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

(g~~f~~) Correcting lenses

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

AMC15 MED.B.095 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.

AMC16 MED.B.095 ~~Otorhino-laryngology~~ Otorhinolaryngology (ENT)

(a) Hearing

(1) Applicants should understand correctly conversational speech when tested with or without hearing aids, at a distance of 2 metres from and with the applicant's back turned towards the examiner.

(2) If the hearing requirements can be met only with the use of hearing aid(s), the hearing aid(s) should provide optimal hearing function, be well-tolerated, and suitable for aviation purposes.

(3~~2~~) Applicants with hypoacusis should demonstrate satisfactory functional hearing ability.

(4) Applicants with profound deafness or major disorder of speech, or both, may be assessed as fit with an SSL such as 'limited to areas and operations where the use of radio is not mandatory'. The aircraft should be equipped with appropriate alternative warning devices in lieu of sound warnings.

(b) Ear conditions

Applicants ~~for a LAPL medical certificate~~ with:

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

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

(3) disturbance of vestibular function;

(4) significant restriction of the nasal passages;

(5) sinus dysfunction;

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

(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 the privileges of the licence.

AMC17 MED.B.095 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 considered.

AMC18 MED.B.095 Oncology

(a) In the case of malignant disease, applicants may be considered for a fit assessment if:

(1) there is no evidence of residual malignant disease likely to jeopardise flight safety;

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

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

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

(b) Arrangements for an oncological follow-up should be made for an appropriate period of time.

SUBPART C

Requirements for medical fitness of cabin crew

Section 1

General requirements

AMC1 MED.C.005 Aero-medical assessments

(a) When conducting aero-medical examinations and~~/or~~ assessments of cabin crew members, as applicable, 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-cabin 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/ultralong 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.

(b) Intervals

(1) The interval between aero-medical assessments of 60 months may be reduced by the competent authority if required by national medical practices. In these cases, the reduced intervals as specified by the competent authority should apply to all cabin crew members who undergo aero-medical assessments by an AME, AeMC or OHMP under the oversight of the competent authority applying reduced intervals.

(2) The interval between aero-medical assessments of 60 months may be reduced by the AME, AeMC or OHMP in accordance with MED.C.035.

Section 2

Requirements for aero-medical assessment of cabin crew

AMC1 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 AMC2 to AMC18 MED.C.025.

AMC2 MED.C.025 Cardiovascular system

(a) Examination

(1) A standard 12-lead resting electrocardiogram (ECG) and report should be completed on clinical indication, at the first examination after the age of 40 and then at least every five years after the age of 50. If cardiovascular risk factors such as smoking,

abnormal cholesterol levels or obesity are present, the intervals of resting ECGs should be reduced to two years.

(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; or

(iii) heart or heart/lung transplantation

should be assessed as unfit.

(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~~ anticoagulation;

(viii) ~~recurrent~~ vasovagal syncope;

(ix) arterial or venous thrombosis; or

(x) pulmonary embolism

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

(c) Blood pressure

Blood pressure should be recorded at each 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 and to verify that the treatment is compatible with the safe exercise of cabin crew duties.

(d) Coronary artery disease

(1) 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.

(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~~ may be considered. Applicants should be on appropriate secondary prevention treatment.

(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~~ may 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~~ may 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.

(f) Thromboembolic disorders

Whilst anticoagulation therapy is initiated, cabin crew members should be assessed as unfit. After a period of stable anticoagulation, a fit assessment may be considered with limitations, as appropriate.

AMC3 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~~ morphological or functional 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~~3~~) pneumothorax;

(5~~4~~) sleep apnoea syndrome/sleep disorder; or

(6~~5~~) major thoracic surgery

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

(d) Cabin crew members who have undergone a pneumonectomy should be assessed as unfit.

AMC4 MED.C.025 Digestive system

(a) Cabin crew members with any ~~sequelae of~~ disease or sequelae of 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.

(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 severe dyspeptic disorder requiring medication;

(2) peptic ulceration;

(3~~2~~) pancreatitis;

(4~~3~~) symptomatic gallstones;

(5~~4~~) an established diagnosis or history of chronic inflammatory bowel disease; ~~or~~

(6~~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;

(7) morphological or functional liver disease; or

(8) after surgery, including liver transplantation

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

AMC5 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:

(i) if it can be demonstrated that adequate blood sugar control has been achieved and hypoglycaemia awareness is established and maintained~~.~~; and

(ii) in the absence, within the preceding 12 months, of any;

(A) hospitalisation related to diabetes; or

(B) hypoglycaemia that resulted in a seizure, loss of consciousness, impaired cognitive function or that required the intervention by another party; or

(C) episode of hypoglycaemia unawareness.

(2) Limitations should be imposed as appropriate. A ~~requirement~~ limitation to undergo specific ~~regular~~ medical examinations (SIC) and a restriction to operate only in multi-cabin crew operations (MCL) should be placed as a minimum.

(3~~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.

GM1 MED.C.025 Metabolic and endocrine systems

DIABETES MELLITUS TREATED WITH INSULIN

When considering a fit assessment for cabin crew with diabetes mellitus requiring insulin, account should be taken of the IATA Guidelines on Insulin-Treated Diabetes (Cabin Crew).

AMC6 MED.C.025 Haematology

Cabin crew members with a haematological condition, such as:

(a) abnormal haemoglobin including, but not limited to, anaemia, ~~polycythaemia~~ erythrocytosis or haemoglobinopathy;

(b) coagulation, haemorrhagic or thrombotic disorder;

(c) significant lymphatic enlargement;

(d) acute or chronic leukaemia; or

(e) ~~enlargement of the spleen~~ splenomegaly;

may be assessed as fit subject to satisfactory aero-medical evaluation. If anticoagulation is being used as treatment, refer to AMC2 MED.C.025 (f).

AMC7 MED.C.025 Genitourinary system

(a) Urine analysis should form part of every aero-medical examination and/or assessment. The urine should not contain any abnormal element(s) considered to be of pathological significance.

(b) Cabin crew members with any disease or 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.

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

(1) renal disease; or

(2) 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 genitourinary 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~~ may be made.

(e) Cabin crew members 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. A requirement to undergo specific medical examinations (SIC) and a restriction to operate only in multi-cabin crew operations (MCL) should be considered.

(f) Cabin crew members requiring dialysis should be assessed as unfit.

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.

AMC9 MED.C.025 Obstetrics and gynaecology

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

(b) Pregnancy

(1) A pregnant cabin crew member may be assessed as fit only during the first 16 weeks of gestation following review of the obstetric evaluation by the AME or OHMP.

(2) A limitation not to perform duties as single cabin crew member should be considered.

(3) The AME or OHMP should provide written advice to the cabin crew member and supervising physician regarding potentially significant complications of pregnancy resulting from flying 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. Particular attention should be paid to emergency procedures and evacuation, and related training.

(c) A cabin crew member with any significant sequelae from disease, injury or congenital abnormality affecting the bones, joints, muscles or tendons with or without surgery requires full evaluation prior to a fit assessment.

(d) A cabin crew member 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.

AMC11 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 after successful treatment.

(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 psychiatric evaluation before a fit assessment ~~can~~ may 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 psychiatric evaluation before a fit assessment ~~can~~ may be considered.

AMC12 MED.C.025 Psychology

(a) Where there is established evidence that a cabin crew member has a psychological disorder, he/she should be referred for psychological opinion and advice.

(b) The psychological evaluation may include a collection of biographical data, the review of aptitudes, and personality tests and psychological interview.

(c) The psychologist should submit a report to the AME or OHMP, detailing the results and recommendation.

(d) The cabin crew member may be assessed as fit to perform cabin crew duties, with limitations if and as appropriate.

AMC13 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.

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

(1) epilepsy without recurrence after five years of age and without treatment for more than ten years;

(2) epileptiform EEG abnormalities and focal slow waves;

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

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

(5) loss of consciousness after head injury;

(6) penetrating brain injury; or

(7) spinal or peripheral nerve injury

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

(c) Cabin crew members with a disorder of the nervous system due to vascular deficiencies including haemorrhagic and ischaemic events should be assessed as unfit. A fit assessment may be considered if neurological review and musculoskeletal assessments are satisfactory.

AMC14 MED.C.025 Visual system

(a) Examination

(1) a routine eye examination should form part of the initial and all further assessments and/or examinations; and

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

(b) Distant visual acuity, with or without correction, should be with both eyes 6/9 (0.7) or better.

(c) A cabin crew member should be able to read an N5 chart (or equivalent) at 30–50 cm, with correction if prescribed.

(d) Cabin crew members should be required to have normal fields of vision and normal binocular function.

(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 hyperopia or both, spectacles or contact lenses should be worn whilst on duty;

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

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

(4) a spare set of similarly correcting spectacles should be readily available for immediate use whilst on duty;

(5~~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~~ the ability to readily perceive those colours of which the perception is necessary for the safe performance of their duties.

GM2 MED.C.025 Colour vision

GENERAL

Examples of colours of which perception is necessary for the safe performance of cabin crew members' duties are cabin crew indication panels and different colour indications in the pressure gauges of emergency equipment, such as fire extinguishers.

AMC16 MED.C.025 ~~Otorhino-laryngology~~Otorhinolaryngology

(a) Hearing should be satisfactory for the safe exercise of cabin crew duties and responsibilities. Cabin crew with hypoacusis should demonstrate satisfactory functional hearing abilities.

(b) Examination

(1) An ear, nose and throat (ENT) examination should form part of all examinations and/or assessments. A tympanometry or equivalent should be performed at the initial examination and when clinically indicated.

(2) Hearing should be tested at all assessments and/or examinations:

(i) the cabin crew member should understand correctly conversational speech when tested with each ear at a distance of 2 ~~meters~~ metres 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;

(iii) at initial examination the cabin crew member should not have a hearing loss of more than 35 dB at any of the frequencies 500 Hz, 1 000 Hz or 2 000 Hz, or more than 50 dB at 3 000 Hz, in either ear separately.

(3) If the hearing requirements can be met only with the use of hearing aid(s), the hearing aid(s) should provide optimal hearing function, be well-tolerated, and suitable for aviation purposes.

(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 intracerebral 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.

GM~~1~~3 MED.C.025 Content of aero-medical assessments

(a) When conducting aero-medical examinations and/or assessments, typical cabin crew duties as listed in (b) and (c), particularly those to be performed during abnormal operations and emergency situations, and cabin crew responsibilities to the travelling public should be considered in order to identify:

(1) any physical and/or mental conditions that could be detrimental to the performance of the duties required from cabin crew; and

(2) which examination(s), test(s) or investigation(s) should be undergone to complete an appropriate aero-medical assessment.

(b) Main cabin crew duties and responsibilities during day-to-day normal operations

(1) During pre/post-flight ground operations with/without passengers on board:

(i) monitoring of situation inside the aircraft cabin and awareness of conditions outside the aircraft including observation of visible aircraft surfaces and information to flight crew of any surface contamination such as ice or snow;

(ii) assistance to special categories of passengers (SCPs) such as infants and children (accompanied or unaccompanied), persons with disabilities or reduced mobility, medical cases with or without medical escort, and inadmissible, deportees and passengers in custody;

(iii) observation of passengers (any suspicious behaviour, passengers under the influence of alcohol and/or drugs, mentally disturbed), observation of potential able-bodied persons, crowd control during boarding and disembarkation;

(iv) safe stowage of cabin luggage, safety demonstrations and cabin secured checks, management of passengers and ground services during re-fuelling, observation of use of portable electronic devices;

(v) preparedness to carry out safety and emergency duties at any time, and security alertness.

(2) During flight:

(i) operation and monitoring of aircraft systems, surveillance of the cabin, lavatories, galleys, crew areas and flight crew compartment;

(ii) coordination with flight crew on situation in the cabin and turbulence events/effects;

(iii) management and observation of passengers (consumption of alcohol, behaviour, potential medical issues), observation of use of portable electronic devices;

(iv) safety and security awareness and preparedness to carry out safety and emergency duties at any time, and cabin secured checks prior to landing.

(c) Main cabin crew duties and responsibilities during abnormal and emergency operations

(1) In case of planned or unplanned emergency evacuation: briefing and/or commands to passengers including SCPs and selection and briefing to able-bodied persons; crowd control monitoring and evacuation conduct including in the absence of command from the flight crew; post-evacuation duties including assistance, first aid and management of survivors and survival in particular environment; activation of applicable communication means towards search and rescue services.

(2) In case of decompression: checking of crew members, passengers, cabin, lavatories, galleys, crew rest areas and flight crew compartment, and administering oxygen to crew members and passengers as necessary.

(3) In case of pilot incapacitation: secure pilot in his/her seat or remove from flight crew compartment; administer first aid and assist operating pilot as required.

(4) In case of fire or smoke: identify source/cause/type of fire/smoke to perform the necessary required actions; coordinate with other cabin crew members and flight crew; select appropriate extinguisher/agent and fight the fire using portable breathing equipment (PBE), gloves, and protective clothing as required; management of necessary passengers movement if possible; instructions to passengers to prevent smoke inhalation/suffocation; give first aid as necessary; monitor the affected area until landing; preparation for possible emergency landing.

(5) In case of first aid and medical emergencies: assistance to crew members and/or passengers; correct assessment and correct use of therapeutic oxygen, defibrillator, first-aid kits/emergency medical kit contents as required; management of events, of incapacitated person(s) and of other passengers; coordination and effective communication with other crew members, in particular when medical advice is transmitted by frequency to flight crew or by a telecommunication connection.

(6) In case of disruptive passenger behaviour: passenger management as appropriate including use of restraint technique as considered required.

(7) In case of security threats (bomb threat on ground or in-flight and/or hijack): control of cabin areas and passengers' management as required by the type of threat, management of suspicious device, protection of flight crew compartment door.

(8) In case of handling of dangerous goods: observing safety procedures when handling the affected device, in particular when handling chemical substances that are leaking; protection and management of self and passengers and effective coordination and communication with other crew members.

Section 3

Additional requirements for applicants for, and holders of, a cabin crew attestation

AMC1 MED.C.030 Cabin crew medical report

The cabin crew medical report to be provided in writing to the applicants for, and holders of, a cabin crew attestation ~~after completion of each aero-medical assessment should be issued~~:

(a) should be issued in the national language(s) and~~/or~~ in English; and

~~(b) according to the format below, or another format if all, and only, should include the following elements: specified below are provided.~~

~~CABIN CREW MEDICAL REPORT FOR CABIN CREW ATTESTATION (CCA) APPLICANT OR HOLDER~~		
~~(1)~~	~~State where the aero-medical assessment of the CCA applicant/holder was conducted:~~	
~~(2)~~	~~Name of CCA applicant/holder:~~	
~~(3)~~	~~Nationality of CCA applicant/holder:~~	

~~(4)~~	~~Date and place of birth of CCA applicant/holder: (*dd/mm/yyyy*)~~	
~~(5)~~	~~Expiry date of the previous aero-medical assessment: (*dd/mm/yyyy*)~~	
~~(6)~~	~~Date of the aero-medical assessment: (*dd/mm/yyyy*)~~	
~~(7)~~	~~Aero-medical assessment: (*fit or unfit*)~~	
~~(8)~~	~~Limitation(s) if applicable:~~	
~~(9)~~	~~Date of the next required aero-medical assessment: (*dd/mm/yyyy*)~~	
~~(10)~~	~~Date of issue and signature of the AME, or OHMP, who issued the cabin crew medical report:~~	
~~(11)~~	~~Seal or stamp:~~	
~~(12)~~	~~Signature of CCA applicant/holder:~~	

(b) should include the following elements:

(1) The State where the aero-medical assessment of the CCA applicant/holder is conducted (I);

(2) Last and first name of the CCA applicant/holder (IV);

(3) Date of birth of the CCA applicant/holder (*dd/mm/yyyy*) (XIV);

(4) Nationality of the CCA applicant/holder (VI);

(5) Signature of the CCA applicant/holder (VII);

(6) Aero-medical assessment (*fit or unfit*) (II);

(7) Expiry date of the previous cabin crew medical report (*dd/mm/yyyy*);

(8) Date of issue (*dd/mm/yyyy*) and signature of the AeMC, AME, or OHMP (X);

(9) Date of the aero-medical assessment (*dd/mm/yyyy*);

(10) Seal or stamp of the AeMC, AME or OHMP (XI);

(11) Limitation(s), if applicable(XII);

(12) Expiry date of medical report (*dd/mm/yyyy*) (IX).

GM1 MED.C.030(b) Cabin crew medical report

GENERAL

The format of the cabin crew medical report may be as shown in the example below, with the size of each sheet being 1/8 of A4.

Competent authority name and logo CABIN CREW MEDICAL REPORT FOR CABIN CREW ATTESTATION (CCA) APPLICANT OR HOLDER		

I The State where the aero-medical assessment is conducted: III Cabin crew attestation reference number: IV Last and first name: XIV Date of birth (*dd/mm/yyyy*): VI Nationality: VII Signature of CCA applicant/holder:	II Aero-medical assessment result (*fit/unfit*): Expiry date of the previous cabin crew medical report (*dd/mm/yyyy*): Date of aero-medical assessment (*dd/mm/yyyy*): X Date of issue* (*dd/mm/yyyy*): X Signature of the AeMC, AME or OHMP: XI Seal or stamp of the AeMC, AME or OHMP:
2	3

* Date of issue is the date the Cabin Crew Medical Report is issued and signed.

XII Limitation(s), if applicable: Code: Description: Code: Description: Code: Description:	IX Expiry date of this medical report (*dd/mm/yyyy*):
4	5

AMC1 MED.C.035 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:

(a) a restriction to operate only in multi-cabin crew operations (MCL);

(b) a restriction to specified aircraft type(s) (OAL) or to a specified type of operation (OOL);

(c) a requirement to undergo the next aero-medical examination and/or assessment at an earlier date than required by MED.C.005(b) (TML);

(d) a requirement to undergo specific ~~regular~~ medical examination(s) (SIC);

(e) a requirement for visual correction (CVL), or by means of corrective lenses only (CCL);

(f) a requirement to use hearing aids (HAL); and

(g) special restriction as specified (SSL).

SUBPART D

Aero-Medical Examiners (AME), General Medical Practitioners (GMP), Occupational Health Medical Practitioners (OHMP)

Section 1

Aero-medical examiners (AMEs)

~~**AMC1 MED.D.010 Requirements for the issue of an AME certificate**~~

AMC1 MED.D.020 Training courses in aviation medicine

BASIC TRAINING COURSE

(a) Basic training course for AMEs

The basic training course for AMEs should consist of 60 hours of theoretical and practical training, including specific examination techniques.

(b) ~~The syllabus for the basic training course should cover at least the following subjects:~~ The learning objectives to acquire the necessary competencies should include theoretical knowledge, risk management and decision-making principles in the following subjects. Demonstrations and practical skills should also be included, where appropriate.

(1) Introduction to aviation medicine;

~~Physics of atmosphere and space;~~

(2) Basic aeronautical knowledge;

(3) Aviation physiology;

(4) Cardiovascular system ~~Cardiology and general medicine~~;

(5) Respiratory system;

(6) Digestive system;

(7) Metabolic and endocrine systems;

(8) Haematology;

(9) Genitourinary system;

(10) Obstetrics and gynaecology;

(11) Musculoskeletal system;

(12) Psychiatry ~~in aviation medicine~~;

(13) Psychology;

~~Dentistry~~

(14) Neurology;

(15) Visual system and colour vision ~~Ophthalmology, including demonstration and practical~~;

(16) Otorhinolaryngology~~, including demonstration and practical~~;

(17) Oncology;

(18) Incidents and accidents ~~Accidents~~, escape and survival;

(19) Medication and flying;

(20) Legislation, rules and regulations;

~~Air evacuation, including demonstration and practical;~~

(21) Cabin crew working environment;

(22) In-flight environment; and

(23) Space medicine.

GM1 MED.D.020 Training courses in aviation medicine

BASIC TRAINING COURSE

(a)	Basic Training Course in Aviation Medicine	60 hours
(1)	Introduction to Aviation Medicine	2 hours
	(i) History of aviation medicine	
	(ii) Specific aspects of civil aviation medicine	
	(iii) Different types of recreational flying	
	(iv) AME and pilots relationship	
	(v) Responsibility of aero-medical examiner in aviation safety	
(2)	Basic aeronautical knowledge	2 hours
	(i) Flight mechanisms	
	(ii) Man-machine interface, informational processing	
	(iii) Propulsion	
	(iv) Conventional instruments, 'glass cockpit'	
	(v) Recreational flying	
	(vi) Simulator/aircraft experience	
(3)	Aviation physiology	9 hours
	(i) Atmosphere	
	(A) Functional limits for humans in flight	
	(B) Divisions of the atmosphere	
	(C) Gas laws - physiological significance	
	(D) Physiological effects of decompression	
	(ii) Respiration	
	(A) Blood gas exchange	
	(B) Oxygen saturation	
	(iii) Hypoxia signs and symptoms	
	(A) Average time of useful consciousness (TUC)	
	(B) Hyperventilation signs and symptoms	
	(C) Barotrauma	
	(D) Decompression sickness	
	(iv) Acceleration	
	(A) G-Vector orientation	
	(B) Effects and limits of G-load	
	(C) Methods to increase Gz-tolerance	

	(D) Positive/negative acceleration	
	(E) Acceleration and the vestibular system	
(v)	Visual disorientation	
	(A) Sloping cloud deck	
	(B) Ground lights and stars confusion	
	(C) Visual autokinesis	
(vi)	Vestibular disorientation	
	(A) Anatomy of the inner ear	
	(B) Function of the semicircular canals	
	(C) Function of the otolith organs	
	(D) The oculogyral and coriolis illusion	
	(E) 'Leans'	
	(F) Forward acceleration illusion of 'nose up'	
	(G) Deceleration illusion of 'nose down'	
	(H) Motion sickness - causes and management	
(vii)	Noise and vibration	
	(A) Preventive measures	
(4)	Cardiovascular system	3 hours
(i)	Relation to aviation; risk of incapacitation	
(ii)	Examination procedures: ECG, laboratory testing and other special examinations	
(iii)	Cardiovascular diseases:	
	(A) Hypertension, treatment and assessment	
	(B) Ischaemic heart disease	
	(C) ECG findings	
	(D) Assessment of satisfactory recovery from myocardial infarction, interventional procedures and surgery	
	(E) Cardiomyopathies; pericarditis; rheumatic heart disease; valvular diseases	
	(F) Rhythm and conduction disturbances, treatment and assessment	
	(G) Congenital heart disease: surgical treatment, assessment	
	(H) Cardiovascular syncope: single and repeated episodes	
Topics (5) to (11) inclusive and (17)		10 hours
(5)	Respiratory system	
(i)	Relation to aviation, risk of incapacitation	
(ii)	Examination procedures: spirometry, peak flow, x-ray, other examinations	
(iii)	Pulmonary diseases: asthma, chronic obstructive pulmonary diseases	

(iv) Infections, tuberculosis

(v) Bullae, pneumothorax

(vi) Obstructive sleep apnoea

(vii) Treatment and assessment

(6) Digestive system

(i) Relation to aviation, risk of incapacitation

(ii) Examination of the system

(iii) Gastro-intestinal disorders: gastritis, ulcer disease

(iv) Biliary tract disorders

(v) Hepatitis and pancreatitis

(vi) Inflammatory bowel disease, irritable colon/irritable bowel disease

(vii) Herniae

(viii) Treatment and assessment including post-abdominal surgery

(7) Metabolic and endocrine systems

(i) Relation to aviation, risk of incapacitation

(ii) Endocrine disorders

(iii) Diabetes mellitus type I & II

(A) Diagnostic tests and criteria

(B) Anti-diabetic therapy

(C) Operational aspects in aviation

(D) Satisfactory control criteria for aviation

(iv) Hyper/hypothyroidism

(v) Pituitary and adrenal glands disorders

(vi) Treatment and assessment

(8) Haematology

(i) Relation to aviation, risk of incapacitation

(ii) Blood donation aspects

(iii) Erythrocytosis; anaemias; leukaemias; lymphomas

(iv) Sickle cell disorders

(v) Platelet disorders

(vi) Haemoglobinopathies; geographical distribution; classification

(vii) Treatment and assessment

(9) Genitourinary system

(i) Relation to aviation, risk of incapacitation

(ii) Action to be taken after discovery of abnormalities in routine dipstick urinalysis e.g haematuria; albuminuria

(iii) Urinary system disorders:

	(A) Nephritis; pyelonephritis; obstructive uropathies	
	(B) Tuberculosis	
	(C) Lithiasis: single episode; recurrence	
	(D) Nephrectomy, transplantation, other treatment and assessment	
(10)	Obstetrics and gynaecology	
	(i) Relation to aviation, risk of incapacitation	
	(ii) Pregnancy and aviation	
	(iii) Disorders, treatment and assessment	
(11)	Musculoskeletal system	
	(i) Vertebral column diseases	
	(ii) Arthropathies and arthroprosthesis	
	(iii) Pilots with a physical impairment	
	(iv) Treatment of musculoskeletal system, assessment for flying	
(12)	Psychiatry	2 hours
	(i) Relation to aviation, risk of incapacitation	
	(ii) Psychiatric examination	
	(iii) Psychiatric disorders: neurosis; personality disorders; psychosis; organic mental illness	
	(iv) Alcohol and other psychotropic substance use	
	(v) Treatment, rehabilitation and assessment	
(13)	Psychology	2 hours
	(i) Introduction to psychology in aviation as a supplement to neuropsychiatric assessment	
	(ii) Methods of psychological examination	
	(iii) Behaviour and personality	
	(iv) Workload management and situational awareness	
	(v) Flight motivation and suitability	
	(vi) Group social factors	
	(vii) Psychological stress, stress coping, fatigue	
	(viii) Psychomotor functions and age	
	(ix) Mental fitness and training	
(14)	Neurology	3 hours
	(i) Relation to aviation, risk of incapacitation	
	(ii) Examination procedures	
	(iii) Neurological disorders	
	(A) Seizures – assessment of single episode	
	(B) Epilepsy	
	(C) Multiple sclerosis	

	(D) Head trauma	
	(E) Post-traumatic states	
	(F) Vascular diseases	
	(G) Tumours	
	(H) Disturbance of consciousness – assessment of single and repeated episodes	
(iv)	Degenerative diseases	
(v)	Sleep disorders	
(vi)	Treatment and assessment	
(15)	Visual system and colour vision	4 hours
(i)	Anatomy of the eye	
(ii)	Relation to aviation duties	
(iii)	Examination techniques	
	(A) Visual acuity assessment	
	(B) Visual aids	
	(C) Visual fields – acceptable limits for certification	
	(D) Ocular muscle balance	
	(E) Assessment of pathological eye conditions	
	(F) Glaucoma	
(iv)	Monocularity and medical flight tests	
(v)	Colour vision	
(vi)	Methods of testing: pseudoisochromatic plates, lantern tests, anomaloscopy	
(vii)	Importance of standardisation of tests and of test protocols	
(viii)	Assessment after eye surgery	
(16)	Otorhinolaryngology	3 hours
(i)	Anatomy of the systems	
(ii)	Clinical examination in ORL	
(iii)	Functional hearing tests	
(iv)	Vestibular system; vertigo, examination techniques	
(v)	Assessment after ENT surgery	
(vi)	Barotrauma ears and sinuses	
(vii)	Aeronautical ENT pathology	
(viii)	ENT requirements	
(17)	Oncology	
(i)	Relation to aviation, risk of metastasis and incapacitation	
(ii)	Risk management	
(iii)	Different methods of treatment and assessment	

(18) Incidents and accidents, escape and survival	1 hour
(i) Accident statistics	
(ii) Injuries	
(iii) Aviation pathology, postmortem examination, identification	
(iv) Aircraft evacuation	
(A) Fire	
(B) Ditching	
(C) By parachute	
(19) Medication and flying	2 hours
(i) Hazards of medications	
(ii) Common side effects; prescription medications; over-the-counter medications; herbal medications; 'alternative' therapies	
(iii) Medication for sleep disturbance	
(20) Legislation, rules and regulations	4 hours
(i) ICAO Standards and Recommended Practices, European provisions (Implementing Rules, AMCs and GM)	
(ii) Incapacitation: acceptable aero-medical risk of incapacitation; types of incapacitation; operational aspects	
(iii) Basic principles in assessment of fitness for aviation	
(iv) Operational and environmental conditions	
(v) Use of medical literature in assessing medical fitness; differences between scientific study populations and licensed populations	
(vi) Flexibility	
(vii) Annex 1 to the Chicago Convention, paragraph 1.2.4.9	
(viii) Accredited Medical Conclusion; consideration of knowledge, skill and experience	
(ix) Trained versus untrained crews; incapacitation training	
(x) Medical flight tests	
(21) Cabin crew working environment	1 hour
(i) Cabin environment, workload, duty and rest time, fatigue risk management	
(ii) Cabin crew safety duties and associated training	
(iii) Types of aircraft and types of operations	
(iv) Single-cabin crew and multi-cabin crew operations	
(22) In-flight environment	1 hour
(i) Hygiene aboard aircraft: water supply, oxygen supply, disposal of waste, cleaning, disinfection and disinsection	
(ii) Catering	
(iii) Crew nutrition	

(iv) Aircraft and transmission of diseases

(23) Space medicine 1 hour

(i) Microgravity and metabolism, life sciences

(24) Practical demonstrations of basic aeronautical knowledge 8 hours

(25) Concluding items 2 hours

(i) Final examination

(ii) De-briefing and critique

~~**AMC1 MED.D.015 Requirements for the extension of privileges**~~

AMC2 MED.D.020 Training courses in aviation medicine

ADVANCED TRAINING COURSE

(a) 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.

(b) ~~The syllabus for the advanced training course should cover at least the following subjects:~~ The learning objectives to acquire the necessary competencies should include theoretical knowledge, risk management and decision-making principles in the following subjects. Demonstrations and practical skills should also be included, where appropriate.

(1) Pilot working environment;

(2) Aerospace physiology~~, including demonstration and practical~~;

(3) Clinical medicine;

(4) Cardiovascular system ~~Cardiology and general medicine, including demonstration and practical~~;

(5) Neurology/psychiatry~~, including demonstration and practical~~;

(6) Visual system and colour vision ~~Ophthalmology, including demonstration and practical~~;

(7) Otorhinolaryngology~~, including demonstration and practical~~;

(8) Dentistry;

(9) Human factors in aviation~~, including demonstration and practical~~;

(10) Incidents and accidents, escape and survival; and

(11) Tropical medicine;

~~Hygiene, including demonstration and practical~~;

~~Space medicine.~~

(c) Practical training in an AeMC should be under the guidance and supervision of the head of the AeMC.

(d) After the successful completion of the practical training, a report of demonstrated competency should be issued.

GM2 MED.D.020 Training courses in aviation medicine

ADVANCED TRAINING COURSE

(a) Advanced Training Course in Aviation Medicine 60 hours

(1)	Pilot working environment	6 hours
	(i) Commercial aircraft flight crew compartment	
	(ii) Business jets, commuter flights, cargo flights	
	(iii) Professional airline operations	
	(iv) Fixed wing and helicopter, specialised operations including aerial work	
	(v) Air traffic control	
	(vi) Single-pilot/multi-pilot	
	(vii) Exposure to radiation and other harmful agents	
(2)	Aerospace physiology	4 hours
	(i) Brief review of basics in physiology (hypoxia, rapid/slow decompression, hyperventilation, acceleration, ejection, spatial disorientation)	
	(ii) Simulator sickness	
(3)	Clinical medicine	5 hours
	(i) Complete physical examination	
	(ii) Review of basics with relationship to commercial flight operations	
	(iii) Class 1 requirements	
	(iv) Clinical cases	
(4)	Cardiovascular system	4 hours
	(i) Cardiovascular examination and review of basics	
	(ii) Class 1 requirements	
	(iii) Diagnostic steps in cardiovascular system	
	(iv) Clinical cases	
(5)	Neurology/psychiatry	5 hours
	(i) Brief review of basics (neurological and psychiatric examination)	
	(ii) Alcohol and other psychotropic substance use	
	(iii) Class 1 requirements	
	(iv) Clinical cases	
(6)	Visual system and colour vision	5 hours
	(i) Brief review of basics (visual acuity, refraction, colour vision, visual fields, night vision, stereopsis, monocularity)	
	(ii) Class 1 visual requirements	
	(iii) Implications of refractive and other eye surgery	
	(iv) Clinical cases	
(7)	Otorhinolaryngology	4 hours
	(i) Brief review of basics (barotrauma - ears and sinuses, functional hearing tests)	

	(ii) Noise and its prevention	
	(iii) Vibration, kinetosis	
	(iv) Class 1 hearing requirements	
	(v) Clinical cases	
(8)	Dentistry	2 hours
	(i) Oral examination including dental formula	
	(ii) Oral cavity, dental disorders and treatment, including implants, fillings, prosthesis, etc.	
	(iii) Barodontalgia	
	(iv) Clinical cases	
(9)	Human factors in aviation, including 8 hours demonstration and practical experience	19 hours
	(i) Long haul flight operations	
	(A) Flight time limitations	
	(B) Sleep disturbance	
	(C) Extended/expanded crew	
	(D) Jet lag/time zones	
	(ii) Human information processing and system design	
	(A) Flight Management System (FMS), Primary Flight Display (PFD), datalink, fly by wire	
	(B) Adaptation to the glass cockpit	
	(C) Crew Co-ordination Concept (CCC), Crew Resource Management (CRM), Line Oriented Flight Training (LOFT) etc.	
	(D) Practical simulator training	
	(E) Ergonomics	
	(iii) Crew commonality	
	(A) Flying under the same type rating e.g. A-318, A-319, A-320, A-321	
	(iv) Human factors in aircraft incidents and accidents	
	(v) Flight safety strategies in commercial aviation	
	(vi) Fear and refusal of flying	
	(vii) Psychological selection criteria	
	(viii) Operational requirements (flight time limitation, fatigue risk management, etc.)	
(10)	Incidents and accidents, escape and survival	2 hours
	(i) Accident statistics	
	(ii) Types of injuries	
	(iii) Aviation pathology, postmortem examination related to aircraft accidents, identification	

(iv) Rescue and emergency evacuation

(11) Tropical medicine 2 hours

(i) Endemicity of tropical disease

(ii) Infectious diseases (communicable diseases, sexual transmitted diseases, HIV etc.)

(iii) Vaccination of flight crew and passengers

(iv) Diseases transmitted by vectors

(v) Food and water-borne diseases

(vi) Parasitic diseases

(vii) International health regulations

(viii) Personal hygiene of aviation personnel

(12) Concluding items 2 hours

(i) Final examination

(ii) De-briefing and critique

GM3 MED.D.020 Training courses in aviation medicine

GENERAL

(a) Principals of training:

To acquire knowledge and skills for the aero-medical examination and assessment, the training should be:

(1) based on regulations;

(2) based on general clinical skills and knowledge necessary to conduct relevant examinations for the different medical certificates;

(3) based on knowledge of the different risk assessments required for various types of medical certification;

(4) based on an understanding of the limits of the decision-making competences of an AME in assessing safety-critical medical conditions for when to defer and when to deny;

(5) based on knowledge of the aviation environment; and

(6) exemplified by clinical cases and practical demonstrations.

(b) Training outcomes:

The trainee should demonstrate a thorough understanding of:

(1) the aero-medical examination and assessment process:

(i) principles, requirements and methods;

(ii) ability to investigate all clinical aspects that present aero-medical risks, the reasonable use of additional investigations;

(iii) the role in the assessment of the ability of the pilot or cabin crew member to safely perform his/her duties in special cases, such as the medical flight test;

(iv) aero-medical decision-making based on risk management;

(v) medical confidentiality; and

(vi) correct use of appropriate forms, and the reporting and storing of information;

(2) the conditions under which the pilots and cabin crew carry out their duties; and

(3) principles of preventive medicine, including aero-medical advice in order to help prevent future limitations.

~~**GM1 MED.D.030 Refresher training in aviation medicine**~~

AMC1 MED.D.030 Validity of AME certificates

REFRESHER TRAINING

(a) It is the responsibility of the AME to continuously maintain and improve their competencies.

(b~~a~~) During the period of authorisation, an AME should attend 20 hours of refresher training.

(c~~b~~) 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.

(d~~c~~) Attendance at scientific meetings and~~,~~ congresses, and flight deck experience may be ~~approved~~ credited by the competent authority for a specified number of hours against the training obligations of the AME, provided the competent authority has assessed it in advance as being relevant for crediting purposes.

~~(d) Scientific meetings that should be accredited by the competent authority are:~~

~~(1) International Academy of Aviation and Space Medicine Annual Congresses;~~

~~(2) Aerospace Medical Association Annual Scientific Meetings; and~~

~~(3) other scientific meetings, as organised or approved by the Medical Assessor.~~

~~(e) Other refresher training may consist of:~~

~~(1) flight deck experience;~~

~~(2) jump seat experience;~~

~~(3) simulator experience; and~~

~~(4) aircraft piloting.~~

GM1 MED.D.030 Validity of AME certificates

REFRESHER TRAINING

Scientific meetings, congresses or flight deck experience that may be credited by the competent authority:

(a)	International Academy of Aviation and Space Medicine Annual Congresses (ICASM)	4 days – 10 hours credit
(b)	European Conference of Aerospace Medicine (ECAM)	4 days – 10 hours credit
(c)	Aerospace Medical Association Annual Scientific Meetings (AsMA)	4 days – 10 hours credit
(d)	Other scientific meetings (A minimum of 6 hours to be under the direct supervision of the medical assessor of the competent authority)	4 days – 10 hours credit
(e)	Flight crew compartment experience (a maximum of 5 hours credit per 3 years):	
	(1) Jump seat	5 sectors - 1 hour credit
	(2) Simulator	4 hours - 1 hour credit
	(3) Aircraft piloting	4 hours - 1 hour credit

4 References

4.1 Affected regulations

— Commission Regulation (EU) No 1178/2011 of 3 November 2011 laying down technical requirements and administrative procedures related to civil aviation aircrew pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council. (OJ L 311, 25.11.2011, p.1). Regulation as last amended by Commission Regulation (EU) No 290/2012 of 30 March 2012 (OJ L 100, 5.4.2012, p.1).

4.2 Affected AMC and GM

— Decision 2011/015/R of the Executive Director of the European Aviation Safety Agency of 15 December 2011 on Acceptable Means of Compliance and Guidance Material to Commission Regulation (EU) No 1178/2011 of 3 November 2011 laying down technical requirements and administrative procedures related to civil aviation aircrew pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council.

4.3 Reference documents

— ICAO Annex 1 'Personnel Licensing', eleventh edition, July 2011.
— ICAO Doc 8984 (AN/895) 'Manual of Civil Aviation Medicine', third edition, 2012.
— IATA 'Insulin-Treated Diabetes – Guidelines for assessment of fitness to work as Cabin Crew', January 2012.

5 Appendices

5.1 List of Abbreviations

AeMC	Aero-Medical Centre
AIDS	Acquired Immune Deficiency Syndrome
AMC	Acceptable Means of Compliance
AME	Aero-Medical Examiner
ARA	Authority Requirements Aircrew
ATPL	Airline Transport Pilot Licence
BPL	Balloon Pilot Licence
CAA	Civil Aviation Authority
CCA	Cabin Crew Attestation
CMO	Chief Medical Officer
CPL	Commercial Pilot Licence
CRD	Comment-Response Document
CRT	Comment-Response Tool
EASA	European Aviation Safety Agency
EC	European Community
ECG	Electrocardiogram
ED	Executive Director
EEG	Electroencephalograph
ENT	Ear, Nose and Throat (Otorhinolaryngology)
EU	European Union
FCL	Flight Crew Licensing
GM	Guidance Material
GMP	General Medical Practitioner
HIV	Human Immunodeficiency Virus
IATA	International Air Transport Association
ICAO	International Civil Aviation Organisation
INR	International Normalised Ratio
IR	Implementing Rule
JAR	Joint Aviation Requirements
LAPL	Light Aircraft Pilot Licence
MA	Medical Assessor
MED	Medical
MP	Medical Practitioner

MPL	Multi-Crew Pilot Licence
MRI	Magnetic Resonance Imaging
MS	Member State
NPA	Notice of Proposed Amendment
OHMP	Occupational Health Medical Practitioner
ORA	Organisation Requirements Aircrew
ORL	Otorhinolaryngology
PPL	Private Pilot Licence
RIA	Regulatory Impact Assessment
RM	Rulemaking
RMT	Rulemaking Task
SARPs	Standards and Recommended Practices (ICAO)
SPL	Sailplane Pilot Licence
TBD	To Be Decided
ToRs	Terms of Reference