

CHAPTER 11

MEDICAL STANDARDS FOR AVIATION PERSONNEL

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## CHAPTER 11

## MEDICAL STANDARDS FOR AVIATION PERSONNEL

**1101. Clinical Medical Standards**

The Military Authority Regulatory Publications (MRPs) provide information on the regulatory and policy framework for military aviation (see Note). Tri-Service clinical aviation medicine policy is directed by the Aircrew Medical Standards Steering Group (AMSSG) which is informed by the Standing Committee on Aircrew Medical Standards (SCAMS). Tri-Service policy and medical standards are detailed in Air Publication 1269A (AP 1269A). BRd 1750A Chapter 11 details RN single Service policy and medical standards which are not covered in the AP.

**Note.**

<http://defenceintranet.diiweb.r.mil.uk/DefenceIntranet/Library/CivilianAndJointService/BrowseDocumentCategories/SafEnvFire/Safety/AviationSafety/MilitaryAviationAuthoritymaaRegulatoryPublicationsmrpindex.htm>

**1102. Aviation Personnel**

RN (including RM, RNR, RMR, FTRS and Naval Contract Service) aviation personnel may be divided into four groups:

Group	Aviation Role	Description of Duties	Professional Group (Note 1)	Level of Medical Assessment (Note 2, Note 3, Note 4)
1.	<b>Professional Aircrew</b>	Flying duties are principal component of employment	<ul style="list-style-type: none"> <li>Pilot (Pit)</li> <li>Observer (Obs)</li> <li>Aircrewman (ACMN)</li> </ul>	<ul style="list-style-type: none"> <li>Initial Aviation Medical Examination (IAME) at RAF Cranwell</li> <li>Periodic Medical Examination (APME) Level 4 (ie full aircrew/ ATC medical examination) annually</li> </ul>
2.	<b>Operational Support Personnel</b>	Non-flying aircrew support duties	<ul style="list-style-type: none"> <li>Air Traffic Controllers (ATC)</li> <li>Fighter Controllers (FC)</li> <li>Aircraft Controllers (AC)</li> <li>Flying Control Operators (FLYCO)</li> <li>Helicopter Controllers (HC)(RN 7 RFA)</li> </ul>	<ul style="list-style-type: none"> <li>IAME at Unit Medical Centre (UMC)</li> <li>APME Level 4 annually</li> </ul>
3.	<b>Trade Personnel (Non-professional Aircrew)</b>	Ground based personnel with local/short-term safety critical flying duties in addition to principal non-flying employment	<ul style="list-style-type: none"> <li>Winchman (WMN)</li> <li>Air Door Gunners (ADG)</li> <li>Flight Test Engineers (FTE)</li> </ul>	<ul style="list-style-type: none"> <li>IAME at Unit Medical Centre (UMC)</li> <li>APME Level 4 annually</li> </ul>
4.	<b>Trade Personnel - Passenger</b>	Ground based personnel with secondary local flying duties in addition to principal non-flying employment. No aviation safety critical role. Passenger status.	<ul style="list-style-type: none"> <li>Flying Maintainers (FM)*</li> <li>Maritime Sniper (MSnp)*</li> <li>Medical Officer (MO)*</li> <li>Medical Assistant (MA)*</li> <li>Photographer (Phot)*</li> </ul>	<ul style="list-style-type: none"> <li>Dependant on flight category</li> <li>* Require A4L3M2E2-MLD JMES or better</li> <li>* Require APME Level 4 aircrew/diving medical if required to complete STASS</li> </ul>

**Notes:**

1. *Including currently serving RNR, FTRS and Naval Contract Service aviation personnel whether or not in possession of an 'in-date' JMES 'A' category. All aviation personnel RN re-entrants, post-discharge RNR recruits and Army/RAF inter-Service transfers are to be directed to their Armed Forces Careers Office (AFCO) and their application managed iaw extant new entrant policy.*
2. *iaw AP1269A Assessment of Medical Fitness – Section 3 Medical Examination – Leaflet 3-01 Assessment of Medical Fitness/Leaflet 3-02 Routine Medical Examinations Annex A.*
3. *iaw Military Aviation Authority – Military Aviation Regulatory Publications – Regulatory Article 2135 – Medical Requirements.*
4. *iaw Military Aviation Authority – Military Aviation Regulatory Publications – Regulatory Article 2340 – Carriage of Passengers on Military Aircraft Para 16 – Medical Examinations/ Flight Category and Para 47 – Aeromedical Considerations for Passengers.*

**1103. Medical Assessment of Aviation Personnel**

a. **Military Aviation Medical Examiner Training.** Medical examination of aircrew and ATC personnel must **only** be carried out by an authorised Military Aviation Medical Examiner (MAME) (see [Note 1](#)). A MAME is a military or civilian doctor who either:

- (1) Holds the Diploma in Aviation Medicine.
- (2) Has completed the Military Aviation Medicine Course at the Centre of Aviation Medicine, RAF Henlow (see [Note 2](#)).
- (3) Has undertaken a legacy Military Aviation Medicine Course comprising 75 hours of aviation medicine training.

All MAMEs must be in date for aviation medicine training and are required to attend the Military Aviation Medicine refresher training every two years. Aviation medicine policy and standards are updated regularly and deploying MOs are advised to download reference copies of AP 1269A and BRd 1750A before deployment and update them regularly when possible during deployments.

b. **Periodic Medical Examination.** Routine medical examinations should be carried out as follows:

- (1) All medical examinations are to be completed in accordance with instructions contained in [Para 1102](#) using FMed 143 (APME) or 144 (IAME). All information relating to the medical assessment of candidates is to be recorded in the individual's DMICP record. Where a DMICP record does not exist, eg in the case of civilian candidates, a record should be raised by the medical centre (see [Note 3](#)).
- (2) On completion of the IAME or APME, MAMEs are to record the individual's current 'A' category, with any medical limitations as appropriate, in his/her flying (or other) log book. MAMEs are to inform the individual's Squadron Commanding Officers, or the appropriate responsible officer, of any change in the 'A' category, whether of a temporary or permanent nature.

c. **Initial Aircrew Medical Examination.** New entry RN aircrew, ATC (see [Note 4](#)) and civilian Naval Contract Service aircrew personnel with no prior IAME are to undergo IAME at the Recruiting and Selection Occupational Medicine Department, RAF Cranwell. All completed IAME FMed 144s and associated documentation are to be scanned into the candidate's DMICP record (see [Note 5](#)). On receipt of notification of completion of IAME, the RN Consultant Advisor in Aviation Medicine (CAAvMed (RN)) will then scrutinise the candidate's medical record, completed FMed 144, the IAME process and outcome before awarding an appropriate JMES aviation category. This JMES will then be passed to the FAA/CNR for a decision on employability.

d. **In-Service Branch Transfer.** RN in-Service branch transfer aircrew and operational support candidates must undergo a special medical examination (PULHHEEMS/Level 4 medical examination) to enable their current PULHHEEMS and JMES status to be reviewed by their Unit Medical Officer (UMO).

(1) Aircrew and operational support candidates who are in JMES MFD A4L1M1E1 and therefore fully fit for their source branch should arrange for their full medical record (FMed 4/965 and associated documents), including an FMed 7 referral summarising all past medical history and a statement of dental fitness, to be forwarded to the Consultant in Occupational/Aviation Medicine (ConsOM(Av)) at RNAS Culdrose for scrutiny.

(2) The ConsOM(Av) will then determine the candidate's medical fitness to proceed and arrange an IACM appointment at RAF Cranwell if appropriate. All documents forwarded for scrutiny will be forwarded to RAF Cranwell or returned to source unit as appropriate. The outcome of the IAME will be recorded on an FMed 144 and scanned into the individual's DMICP record along with all other supporting medical documents when complete. On receipt of notification of completion of IAME, CAAvMed(RN) will then scrutinise the candidate's medical record, completed FMed 144, the IAME process and outcome before awarding an appropriate JMES aviation category.

e. **Trade Personnel.**

(1) Trade personnel candidates, and where appropriate passengers, meeting the minimum MLD A4L3M2E2 JMES should arrange for their full medical record (FMed 4/965 and associated documents) and a statement of dental fitness, to be forwarded to the Consultant in Occupational / Aviation Medicine at the relevant air station for scrutiny. The Consultant will then determine the candidate's medical fitness to proceed and offer an IAME appointment as appropriate. All documents forwarded for scrutiny are to accompany the candidate to the IAME.

(2) *Trade Personnel (Non-Professional Aircrew).* IAMEs for Trade Personnel (Non-Professional Aircrew) must be carried out on an air station by a MAME under supervision of a ConsOM(Av). The outcome of the IAME will be recorded on an FMed 144 and scanned into the individual's DMICP record along with all other supporting medical documents when complete. On receipt of notification of completion of IAME, the ConsOM(Av) will then scrutinise the candidate's medical record, completed FMed 144, the IAME process and outcome before awarding an appropriate JMES aviation category. Aviation JMES for trade personnel is to be documented in the following format (example – Air Door Gunner):

MFD A3L1M1E1 (487) (Air Door Gunner)

(3) *Trade personnel (Passenger)*. Trade Personnel (Passenger) status applies to stated personnel who have a formal secondary role which involves regular transport by aircraft without any aviation safety critical responsibilities and with A4 passenger status. They are required to be fit for their deployed role in their relevant source branch. If required to undergo STASS training or use STASS they require a current APME Level 4 aircrew or diving medical.

f. **Aeromedical Determination of Fitness to Enter Specialist Aviation Training.**

(1) *Aircrew and operational support candidates*. Fitness to enter training will be confirmed by the CAAvMed (RN). Upon confirmation, individuals' JMES will be updated to reflect their A Joint Medical Employment Standard (see [Note 6](#)), including the annotation of medical limitations (MLs) where applicable (see [Note 7](#)). Thereafter, periodic medical examinations (PMEs) may be conducted by MAMES at UMCs in accordance with guidance contained within this chapter.

(2) *Trade personnel (Non-professional Aircrew) candidates*. Fitness to enter training will be confirmed by a ConsOM(Av). Upon confirmation, the individual's JMES will be updated to reflect their Air Medical Employment Standard (see [Note 8](#)) including the annotation of medical limitations (MLs) where applicable. Thereafter, periodic medical examinations (PMEs) may be conducted by MAMES in accordance with guidance contained within this chapter.

g. **Entry or Re-entry of Trained Military Aircrew.**

(1) Aircrew must follow routine re-entry or recruitment procedures.

(2) Former tri-service UK military aircrew deemed fit for general service entry/re-entry and aircrew recruited to the Naval Contract Service whose most recent military aircrew medical is dated 3 or less years prior to application to re-enter will undergo an APME/Level 4 aviation medical examination by an air station ConsOM(Av) against new entry aircrew / ATC standards as appropriate and the resulting recommended JMES is to be forwarded to CAAvMed (RN) for approval. The JMES will then be forwarded to the FAA / CNR for a decision on employability.

(3) Former tri-service UK military aircrew deemed fit for general service entry or recruited to the Naval Contract Service and whose most recent aircrew medical is dated more than 3 years prior to application to enter / re-enter will be referred to the Recruiting and Selection Occupational Medicine Department, RAF Cranwell for an IAME in accordance with routine new entry procedure.

**Notes:**

1. *RNTM 169/11RN MO/CMP Transition to RAF/ARMY Aviation Training Standards.*
2. *RAF CAM course dates and application details, including those of MAMC initial and refresher courses, are published annually by DIN.*
3. *law BR3 Chapter 51 Paras 5118 a, (3) (b), 5119 b (1) 'Note' and 5119 c (2). Note IAME now at RAF Recruiting and Selection Occupational Medicine Department, RAF Cranwell.*
4. *And related sub-specialisation personnel – ATC, FC, AC, FLYCO, HC RN, HC RFA.*

5. Results of all preliminary investigations and physiological measurements are also to be entered into individual's records using existing DMICP templates or software linked to local pathology laboratories.

6. Aircrew candidates may be awarded either A1, A2 or A3 with appropriate MLs. Operational support candidates may only be awarded A4.

7. This information will be available to Career Managers who are encouraged to discuss the employment implications of any specific MLs with CAAvMed (RN) or Cons OM/AvMed.

8. Trade personnel may only be awarded A3 with appropriate MLs.

#### 1104. Minimum Selection Medical Standards for Aviation Personnel

Minimum selection medical standards, including visual and hearing acuity standards and anthropometry and weight considerations, for aviation personnel are given in AP 1269A (see [Note 1](#)). Exceptions for RN aviation personnel are given below:

##### a. Pilot/Observer/Aircrewman.

P	U	L	H	H	E	E	M	S	CP	JMES
2	2	2	1	1	3 1	3 1	2	2	1	A1L1M1E1MFD

(1) Pilots, Observers and Aircrewmen must meet the relevant visual acuity/refraction standards detailed in AP 1269A Leaflet 4.02 Annex A (Pilot).

(2) Colour perception (CP) standard for RN pilots and Observers is CP1 (see [Note 2](#)).

##### b. Operational Support Personnel.

P	U	L	H	H	E	E	M	S	CP	JMES
2	2	2	2	2	7 1	8 1	2	2	1 or 2	A4L1M1E1MFD

(1) Contact lenses may be worn to achieve corrected vision of 6/6.

(2) VA II acceptable for AC.

(3) Disqualifying conditions:

- Epilepsy
- Diabetes mellitus
- Coronary Artery Disease
- Cerebrovascular accident
- Medical history with risk of incapacitation and/or
  - Sudden disorientation
  - Sudden loss of consciousness
  - Sudden loss of mental or emotional control

(4) The following conditions may only be compatible with restricted controlling duties:

Hypertension  
Migraine

**c. Trade Personnel (Non-Professional Aircrew).**

P	U	L	H	H	E	E	M	S	CP	JMES
2	2	2	1	1	3 1	3 1	2	2	2	A3L1M1E1MFD

(1) Personnel employed as part of constituted crew and with a safety critical role will require a minimum JMES of A3L1M1E1-MFD with a minimum EE grading of E3/1 E3/1. They must meet aircrew fitness standards with the exception of vision optometry.

(2) Trade Personnel (Passenger). Must be fit for their deployed role with JMES A4L3M2E2-MLD or better. Current APME/diving medical required for STASS training/use.

**Notes:**

1. *AP 1269A Assessment of Medical Fitness – Section 4 Branch/Trade Standards – Leaflet 4-02 Royal Air Force Medical Standards – Aircrew/Leaflet 4-03 Royal Air Force Medical Standards – Officers of Ground Branches/Leaflet 4-04 Royal Air Force Medical Standards – Ground Trades/Leaflet 4-05 Anthropometry.*
2. *Brd 1750A Chapter 6 [Leaflet 6-05](#).*

**1105. Aviation Periodic Medical Examination for Aviation Personnel**

a. All groups of aviation personnel (with the exception of certain passenger groups but including candidates for flying training who have successfully passed their IAME) require annual aircrew medical assessments and are to maintain a valid 'A' category even when employed in non-flying roles.

(1) Aircrew medicals are considered valid for one year from the date of the last medical examination.

(2) Under exceptional circumstances air station ConsOM(Av) may recommend an extension of the currency of a medical category by up to 28 days. The responsibility for granting authority to fly under the extension lies with the Delivery Duty Holder (DDH).

(3) Longer extensions will only be recommended by CAAvMed (RN) for urgent operational reasons, and only for up to three months following expiry of their 'A' category. A medical examination by a medical officer, detailed on FMed 143, must accompany a request for a three month extension. The responsibility for granting authority to fly under the extension lies with the Delivery Duty Holder (DDH).

(4) If three or more years elapse following the expiry of the last aircrew medical (including IACM), aviation personnel must undergo medical examination by an air station ConsOM(Av). Any variation from A1 JMES aviation medical standards must be approved by President Naval Aircrew Advisory Board (PNAAB) before resumption of aviation duties.

(5) All aviation personnel electrocardiograms annotated with details of role, height, weight, and blood pressure are to be sent, preferably electronically, to the RAF ECG Service for specialist interpretation and reporting. Aircrew reported as having potentially significant abnormalities are to be referred to the RAF Clinical Aviation Medicine Service (CAMS) by their MAME for full cardiovascular evaluation in accordance with AP1269A Leaflet 5-02 (see [Note 1](#)).

(6) Aircrew with sub-optimal hearing or eyesight (H2 E2 or below) are to be appropriately clinically investigated as directed in AP1269A Leaflet 2-03 Para 3.a. (see [Note 2](#)). On completion of investigation they are to be referred to CAAvMed (RN) for award of a permanent A2 or other appropriate JMES (see [Note 3](#)).

**Notes:**

1. <http://www.publications.raf.r.mil.uk/live/1269a/Section%205/Lft%205-02.doc>

2. <http://www.publications.raf.r.mil.uk/live/1269a/Section%205/Lft%205-03.doc>

3. *AP 1269A Assessment of medical Fitness – Section 2 Medical Boards Leaflet 2-03 Informal Medical Boards.*

**1106. Aircrew Not Under Routine Service Primary Care**

a. All military, civilian or contractor aviation personnel not under the care of a military Medical Centre for primary care / general practice are to provide a Medical Attendants Report (MAR) from their civilian general practitioner at APME. Appropriate forms and instructions for completion are to be made available to air station departments who are responsible for issuing documentation no earlier than 60 days prior to the expiry date of the relevant medical examination. Alternatively forms will be available for issue to individual patients in the medical centre.

b. Aircrew and ATC personnel who require a MAR and who do not present one at the time of their medical will remain unfit to fly or control until a current MAR is presented and their APME completed.

**1107. CAA/EASA Waiver**

a. Waivers may be granted for RN, RNR Air Branch and contractor personnel who hold a current CAA EASA Class 1 Medical Certificate who do not fly fast jet and ejection seat aircraft. Personnel who are flying fast jet and ejection seat aircraft must undergo full service APMEs.

b. Personnel who require a waiver must present to a MAME in person with a completed Medical Attendants Report and their CAA / EASA Class 1 Medical Certificate, complete an extended health questionnaire and give a verbal assurance of unchanged health since their CAA / EASA medical. Personnel who carry STASS must undergo spirometry annually. Policy and validity of waivers are detailed in AP129A Leaflet 3-02 Para 11 (see [Note](#)).

c. For RN personnel, the initial CAA waiver is subject to approval by CAAvMed (RN), with subsequent waivers authorised at unit level subject to presentation of appropriate documentation on each occasion. Logbook, FMed4 and DMICP are to be annotated with an appropriate JMES e.g. MFD -A1L1M1E1 (CAA / EASA Class 1 waiver). The Waiver is valid to the expiry date of Class 1 privileges, normally 12 months from the date of the last medical examination. 6 monthly ECGs are still mandatory iaw AP1269A.

**Note.**

<http://www.publications.raf.r.mil.uk/live/system/rafpubs/docindex.asp?DocIDNo=2>

**1108. Secondment, Exchange or Loan Service**

Following a period of secondment to non-aviation duties of three years or more, or exchange or loan service with foreign or commonwealth armed forces, the medical documents of aircrew personnel shall be reviewed by an air station ConsOM(Av) before a return to flying / controlling duties. The responsibility for forwarding documents lies with the ship/ establishment to which aircrew personnel are reappointed on return from secondment, exchange or loan service.

**1109. Exchange Aviation Personnel**

Exchange aircrew serving with the Royal Navy are to undergo review and confirmation of fitness for aviation duties by an air station ConsOM(Av) on joining and before undertaking flying / controlling duties. STANAG 3526 applies.

**1110. Sickness of Aviation Personnel**

a. Aircrew may be awarded a light duties period of reduced or unfitness for flying duties of up to 28 days. Formal JMES assessment and downgrading action must be taken for longer periods of reduced fitness.

b. Personnel who are in a downgraded JMES for greater than 6 months must be referred to an air station ConsOM(Av) for JMES review in accordance with current NCHQ guidelines. On return to fitness and before returning to flying duties, such personnel should have their case reviewed by a ConsOM(Av). Advice on appropriate grading should be sought from CAAvMed (RN) where necessary.

**1111. Pregnancy**

Pregnant aircrew are to be grounded and awarded an appropriate JMES. In addition to routine appropriate JMES grading, limitations and executive risk assessment they are not to undertake:

- a. Decompression training.
- b. Wet HEEDS/STASS training.
- c. Dunker training.

d. Training in a dynamic motion flight simulator with a moderate to high risk of rapid and/or un-expected movement or restricted access (as determined by individual aircraft platform risk assessment).

**1112. Permanent Alterations to the Aviation Medical Category**

a. Personnel who are no longer fit for unrestricted flying or controlling duties must be referred to CAAvMed (RN) for award of an appropriate Permanent JMES. CAAvMed (RN), as President Central Air Medical Board (PCAMB) is the only MO authorised to allocate a permanent alteration of a flying or controlling medical category. Aircrew are seen only by appointment. They shall be referred by FMed 7 and attend with their Flying Logbook and FMed 4.

b. Personnel awarded a permanently reduced aviation / controlling JMES will normally be referred to the President Naval Aircrew Advisory Board (PNAAB) by PCAMB for advice on future employability and executive disposal.

c. Personnel whose flying or controlling limitations are permanent, or result in a temporary reduction in JMES for 12 months or more, will normally be referred to NSMBOS. Personnel may be awarded unrestricted flying or controlling duties, but require referral to NSMBOS due to the wider deployability / employability implications of their medical condition. A referral to NSMBOS will normally involve PNAAB, in order to provide employability advice to both the individual and the Board.

**1113. Reconsideration of Permanent Flying Medical Categories**

Following the award of an A4 Permanent or Permanently Unfit for Controlling Duties category, once 12 months have elapsed (or a longer period if stipulated in aviation medicine policy), an officer or rating may request re-referral to PCAMB for review.

**1114. Re-engagement of Aviation Personnel**

When required to consider fitness for Extension of Service or Extended Career in RN ratings, MOs are to ensure that they consider, as far as reasonably practicable, that personnel will be fit to fly or control until the end of their proposed new engagement. In cases of doubt, personnel are to be referred for ConsOM(Av) opinion.

**1115. Assessment for Fitness for STASS Training**

a. Policy for assessment for fitness for STASS training for aircrew and other personnel is detailed in BR1750A Chapter 12, [Leaflet 12-05](#) (see [Note](#)).

b. Aircrew are required to complete UETU and STASS training as an integral component of the aircrew training pipeline. Personnel who have completed STASS training may subsequently be medically assessed, following appropriate specialist investigation, as "Unfit Wet STASS Training" yet be considered otherwise medically fit to fly in all respects and medically fit to carry and use STASS in emergency. Such personnel are to be referred to CAAvMed RN for grading. They will be awarded a maximum JMES of:

MFD A3L1M1E1 (487) Unfit Wet STASS Training

They are to be referred to PNAAB for review before undertaking further STASS training.

**Note.** [http://www.royalnavy.dii.r.mil.uk/fleet\\_fsag/fsag\\_books1/brd1750a/BRd1750A%20-%20June%202012/brd1750abook/lft12-05.pdf](http://www.royalnavy.dii.r.mil.uk/fleet_fsag/fsag_books1/brd1750a/BRd1750A%20-%20June%202012/brd1750abook/lft12-05.pdf)