

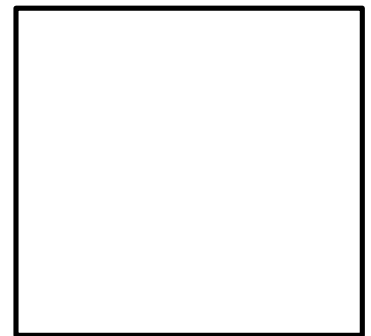
# ACKNOWLEDGEMENT OF DAME NEWSLETTER, MARCH 1999

After reading the contents of the Newsletter, please sign this page and return it to the Office of Aviation Medicine, GPO Box 1544, Canberra City, ACT, 2601, or alternately fax this page to (02) 6217 1640, or advise receipt per e-mail to [urban\\_ma@casa.gov.au](mailto:urban_ma@casa.gov.au)

Signed.....

Printed Name.....

Date.....



DAME STAMP

**Please pass this Newsletter on to your relevant staff after you have finished reading it, then retain it for future reference.**

## **INTRODUCTION**

This omnibus/bumper issue of the CASA DAME Newsletter for March 1999 contains much important information. Please take the time to familiarise yourself with all of it.

## **CONDITIONS OF APPOINTMENT**

New conditions of appointment for all Designated Aviation Medical Examiners (DAMEs) and Designated Aviation Ophthalmologists (DAOs) were approved in 1996. Since many of our current panel were designated before then, the Conditions Of Appointment for DAMEs and DAOs are reproduced hereunder. Note that these conditions apply to all DAMEs and DAOs.

## **CONDITIONS OF APPOINTMENT**

### **DESIGNATED AVIATION MEDICAL EXAMINER AND DESIGNATED AVIATION OPHTHALMOLOGIST**

Designation is initially for a probationary period of six months, thereafter, renewal is required every four years. For those DAMEs appointed prior to 1996, a four year cycle of renewals will begin on 1 July 1999. Those concerned will receive applications for re-appointment progressively thereafter.

Designation lapses if the Aviation Medical Examiner ceases to practise in the locality for which he/she is designated.

Designation does not extend to the DAME's partners, assistants or locums without the written consent of the Director of Aviation Medicine.

1. The examiner is required:
  - (i) to conduct himself/herself in a professional manner and in accordance with the Australian Medical Association's Code of Ethics (Note);
  - (ii) to be satisfied as to the identity of each applicant;
  - (iii) to examine personally each applicant presenting for examination;
  - (iv) to devote such time and skill to the examination of applicants as may be necessary to take a careful history and to conduct a full and thorough examination;
  - (v) on the conclusion of each medical examination, to forward the report promptly to the Director of Aviation Medicine;
  - (vi) to keep informed of, and follow the relevant standards, techniques and administrative procedures promulgated by the Civil Aviation Safety Authority and to attend at least one Aviation Medicine Seminar every two years during the appointment period;
  - (vii) to notify the Director of Aviation Medicine if absent from active practice for more than 4 weeks;
  - (viii) to notify the Director of Aviation Medicine of any changes of address, telephone number or other contact details, or of cessation of practice;
  - (ix) on cessation of appointment as a Designated Examiner, to return the DAME stamp, DAME Handbook and unused examination forms to the Civil Aviation Safety Authority;
  - (x) to accept the Authority's right to terminate Designation, should a practitioner conduct himself/herself in a manner that is detrimental to the authority or contrary to generally accepted standards of medical practice.

Note. The current version of the Australian Medical Association's Code of Ethics is available from the AMA's website. See <[www.ama.com.au](http://www.ama.com.au)> and look under 'position statements'.

## **REVISED DAME DELEGATIONS**

### **Delegations under the Civil Aviation Regulations**

By means of an instrument dated 23 December 1998, the CASA Director of Aviation Safety has delegated the following powers to DAMEs.

- a. Issuing of a temporary Medical Certificate for Original Issue for a maximum period of 2 months from the date of completion of an Original Medical Questionnaire and Examination Form completed in respect of an applicant for a Class 1 or Class 2 Medical Certificate. (CAR 5.04 (2) refers).
- b. Revalidation of the Medical Certificate of an applicant for a Class 1, 2 or 3 Medical Certificate for a maximum period of 2 months from the date of completion of a Renewal Medical Questionnaire and Examination Form. Note that such revalidation is permissible only in respect of Medical Certificate(s) of the same class(es) previously held by the applicant. Where an applicant's Medical Certificate has expired prior to the date of medical examination, DAMEs may only exercise this delegation if the Medical Certificate has expired in the immediately preceding 3 months. (CAR 6.06 refers)
- c. Extension, for a maximum period of 2 months, of the period a current Medical Certificate remains in force for the holder of a Class 1, 2 or 3 Medical Certificate (CAR 6.15 refers).

Please read this material in conjunction with Part 1 Section A of the Revised DAME Handbook, available through the CASA website under 'Licences and Certificates', 'Medical Examiners'.

DAMEs or Designated Aviation Ophthalmologists who have any difficulty in interpreting these delegations are invited to contact the Acting Director of Aviation Medicine directly.

### **DAME DIRECTORY**

A full listing of DAMEs and Designated Aviation Ophthalmologists is now available at the CASA website <[www.casa.gov.au](http://www.casa.gov.au)>, under 'Licenses and Certificates'. It is intended to update this site regularly.

A number of DAMEs have requested inclusion of their email addresses under their heading at the CASA website. CASA is happy to accommodate such requests, but will not insert such information without a direct request from the DAME or Designated Aviation Ophthalmologist concerned. Note that future editions of DAME Newsletters will be sent individually to DAMEs' nominated email addresses.

## **DRAFT REVISION OF DAME HANDBOOK**

After a gestation of several months, a draft revision of the DAME Handbook is now available on the CASA website: [www.casa.gov.au](http://www.casa.gov.au) under Licences and Certificates, Medical Examiners. This is intended as a living document, which will be regularly updated, and details of its currency displayed on the website. DAMEs' and Designated Aviation Ophthalmologists' suggestions for improvements to it will be welcomed at any time. Electronic comments should be addressed to the following email address: [urban\\_ma@casa.gov.au](mailto:urban_ma@casa.gov.au).

## **DAME NEWSLETTERS**

The text of this Newsletter also appears on the CASA website: see [www.casa.gov.au](http://www.casa.gov.au) under Licences and Certificate, Medical Examiners. Note that it is intended this will be the last DAME Newsletter distributed in "hard" form. Hereafter, it is intended to inform DAMEs and Designated Aviation Ophthalmologists of a new website posting electronically whenever possible. Others will be mailed advice of posting on the website required to download/arrange for downloading of the material, then to return either electronic, fax or post acknowledgement. Specially-produced "hard" copies will hereafter only be sent to DAMEs and Designated Aviation Ophthalmologists who specifically request this service. Eventually, I anticipated that Newsletters will **ONLY** be available in electronic form.

## **DOWNLOADING MATERIAL FROM CASA WEBSITE**

With the DAME list, DAME Handbook and DAME Newsletters now available at the CASA website, CASA will no longer routinely distribute hard copies of these publications hereafter. As earlier mentioned, these documents will be regularly updated, so DAMEs will need to be certain of the currency of any hard copy which they download. DAMEs who do not have access to the internet should make private arrangements with a third party to print the Handbook, DAME list or future Newsletters on their behalf.

## **NEW O AND R MEDICAL EXAMINATION AND REPORT FORMS**

Copies of new forms incorporating specific questions on problematic use of substances among applicants are expected to be available within the next few months. Meanwhile DAMEs are requested to continue using existing forms (1997 revisions) and to attach stickers to them embodying this question, as previously advised. Additional stickers may be obtained by contacting the DAME Liaison Officer, Ms Margaret Urban: telephone (02) 6217 1624, e-mail [urban\\_ma@casa.gov.au](mailto:urban_ma@casa.gov.au).

## **FUTURE LODGEMENT OF EXAMINATION AND REPORT FORMS**

I anticipate that the option of "hard copy" lodgement of forms should continue for most or all of 1999. Thereafter, however, CASA anticipates conversion to a fully electronic lodgement format. DAMEs should give early consideration to their subsequent computing needs.

## **FEEDBACK FOR DAMEs ON CUSTOMER SATISFACTION**

In the immediate future, CASA intends to provide randomly selected examinees with a (voluntary) opportunity to comment on their satisfaction with the most recent medical examination and assessment undertaken by their DAMEs. With the examinee's permission, these comments will be returned to DAMEs for their information. It is proposed to collect information on the following.

- How long did the examinee wait for an appointment?
- How long did the examination take?
- Did the DAME behave appropriately towards the examinee throughout the examination?
- Did the DAME explain any tests or procedures undertaken which the examinee did not previously understand?
- Were any additional tests or referrals required?
- Did the DAME issue or revalidate the examinee's Medical Certificate?
- Does the examinee have any other questions or comments concerning the medical examination process and/or the particular examination by this DAME?

Additionally, information will be passed to the examinee concerning both the date of the examination and the date of receipt of the report by the Office of Aviation Medicine.

It is anticipated that collation of data from this feedback, over time, will assist the Office of Aviation Medicine in its assessment of the adequacy of numbers of DAMEs in particular areas, as well as providing DAMEs with valuable information on their performance as viewed by examinees. Comments on this proposal, and suggestions for additional/alternative inquiries to be passed to examinees, will be welcomed. It is hoped to introduce this process during the first half of 1999.

**AVAILABILITY OF ALTERNATIVE COLOUR PERCEPTION TESTING FOR APPLICANTS WHO FAIL THE ISHIHARA PLATES AND FARNSWORTH LANTERN TESTS**

Effective immediately, CASA has approved an additional testing mechanism for colour perception defective applicants. Applicants who pass this test will be assessed as fit for all classes of Medical Certificates. Testing may be arranged by an applicant contacting the District Flight Operations Manager at the following locations, who will arrange for testing to be undertaken by a local Flying Operations Inspector (FOI).

Mr Grahame Sparrow  
Acting District Flight Operations  
Manager  
Bankstown District Office  
PH: (02) 9366 3105

Mr Peter Salvair  
Acting District Flight  
Operations Manager  
Melbourne District Office  
PH: (03) 9927 5351

Mr Bill Taylor  
District Flight Operations  
Manager  
Archerfield District Office  
PH: (07) 3335 2601

Mr John McGhie  
District Flight Operations  
Manager  
Brisbane District Office  
PH: (07) 3842 2511

Mr Stewart McAlister (until 19/2/99)  
(Mr Reg Perkins on sick leave)  
District Flight Operations  
Manager  
Cairns District Office  
PH: (07) 4042 3611

Mr Peter Rundle  
District Flight Operations  
Manager  
Townsville District Office  
pH: (07) 4750 2650

Mr Ray Feltman  
District Flight Operations  
Manager  
Coffs Harbour/Tamworth District Offices  
PH: (02) 6755 2255

Mr Bob Greenwood  
District Flight Operations  
Manager  
Moorabbin/Melbourne District  
Office  
PH: (03) 9927 5371

Mr Ian Priestly  
District Flight Operations Manager  
Wagga Wagga District Office  
PH: (02) 6937 2202

Mr Rick Davies  
District Flight Operations  
Manager  
Darwin District Office  
PH: (08) 8943 2982

Mr Bill Riceman  
Acting District Flight Operations  
Manager  
Adelaide District Office  
PH: (08) 8422 2921

Mr Ron Scott  
District Flight Operations  
Manager  
Parafield District Office  
PH: (08) 8209 2940

Mr Winston James  
District Flight Operations  
Manager  
Jandakot District Office  
PH: (08) 9212 3827

Mr Bob Dannatt  
Acting District Flight  
Operations Manager  
Perth District Office  
PH: (08) 9366 2851

Mr John Leaversuch  
Acting District Flight Operations  
Manager  
Sydney District Office  
PH: (02) 9366 3101

Details of the testing protocol are as follows.

1. The applicant must be appropriately identified. If the applicant's identity cannot be verified because of lack of photographic documentation or inadequate documents, the examiner should request that the applicant return with appropriate identification.
2. The FOI conducting the examination should himself/herself have normal colour vision.
3. The FOI should arrange with the Aviation Signal Light test operator a system of signals (hand signals, radio, light or other, as appropriate) to indicate when the light should be shown.
4. Practical testing may be carried with signal lights commonly used in aviation such as hand guns or tower lights. The appropriate test should be coordinated with the control tower operator and should be conducted per following paragraphs 5-8 inclusive, regardless of the type of aviation signal light used.



5. The applicant, accompanied by the examiner, should first be stationed approximately 300 metres from the light. By pre-arrangement, the operator of the aviation signal light should show steadily for five seconds either a green, red or white light (the colour to be determined by the operator by chance selection). After an interval of three minutes, repeat the procedure with the colour determined again by chance selection. After another interval of three minutes, repeat the procedure once again.
6. The applicant, accompanied by the examiner, should then be stationed at 500 metres from the light. The procedures outlined above are followed again, the colours shown by chance selection for five seconds at intervals of three minutes.
7. If, because of chance selection, any of the three colours has not been shown, that colour should be shown at this time. Where two colours are to be shown, use an interval of three minutes between the showing of the colours.
8. Failure of the applicant to call each colour correctly within the time limit during which the light is shown shall indicate failure of the test. The applicant should be given no indication of the accuracy of his/her readings at any time during the test. The test should be completed as specified regardless of the applicant's performance. If possible the test should be given at twilight to test the applicant under both day and night conditions. Under such special arrangements the night-time portion of the test may include tests other than those described. Such supplementary tests could include identification of lights of aircraft, runway, threshold, and taxiways.
9. The FOI should record details of the colours displayed and of the applicant's responses on the accompanying form, together with the applicant's relevant details. This should then be forwarded directly to the Office of Aviation Medicine. Under no circumstances should it be given to the applicant.
10. The examiner should lodge a request for assistance from Airservices Australia staff with conducting tests at least seven days prior to the proposed test.
11. The examiner should contact nominated staff at designated facilities to make the necessary arrangements.

## **DRAFT ALTERATIONS TO ICAO SUPPLEMENT 1 VISUAL STANDARDS REQUIREMENTS**

ICAO recently invited comment from signatory nations/authorities on proposals to update the relevant standards. Copies of the proposed amendments were sent to a sample of Designated Aviation Ophthalmologists in all Australian states and territories for comment. The responses received were collated and have been conveyed to ICAO.

CASA is grateful to its Designated Aviation Ophthalmologists who took the trouble to provide valuable input to this process. An amendment to the relevant international standards should be expected within the next 12 months or so and will be reflected in a future update of the Designated Aviation Medical Examiners' Handbook. Changes principally concern contact lenses, multifocal spectacles and photo-refractive surgery.

Note that, at this stage, the criteria stated in the existing CASA DAME Handbook (internet version) remain current.

### **MISTAKES, DIFFICULTIES AND GLITCHES**

Some DAMEs (they surely know who we mean) have completely illegible handwriting. There are no pharmacists in CASA's Office of Aviation Medicine. Those concerned are requested - **PLEASE** - to *print* manuscript text comments made on examination and report forms.

Airservices Australia report continuing difficulties with DAMEs' completion of details on the staff-in-confidence medical renewal notification for Air Traffic Controllers and Flight Service Officers which those concerned take with them to the DAME at the time of their medical examinations. In a small recent sample from a single office:

- the extension date was left blank on four forms;
- the DAME purported to extend the validity of a Certificate for two years, well beyond his/her delegation, in three cases;
- the renewal date was the same as the visit/examination date in two cases;
- the DAME purported to extend validity for a period of ten months prior to the visit/examination (i.e. the examination was undertaken on 12/12/98 with the extension noted until 22/2/98!) in one case;
- the renewal date was recorded as identical to the visit/examination date in three cases;
- a renewal for two months beyond the visit/examination date was recorded in one case where the applicant's Medical Certificate was endorsed 'Renew by CASA Only'.

Airservices Australia has undertaken to attempt to make these forms more "user friendly". Meanwhile, however, DAMEs are requested to exercise due vigilance in their completion.

### **MORE ON ILLEGAL DRUGS**

An interesting article, 'certification issues concerning substance abuse', appeared in the US Federal Air Surgeon's Medical Bulletin for Fall 1998. It repays reading and is available at the FAA website <[www.faa.gov/avr/AAM/FASB597/FASB1.HTM](http://www.faa.gov/avr/AAM/FASB597/FASB1.HTM)>

### **OTHER WEBSITES OF INTEREST**

The Aerospace Medicine Association website is regularly updated. Visit it at <[www.asma.org](http://www.asma.org)>

CASA Office of Aviation Medicine welcomes advice of other websites which bear on aviation medicine theory and practice and will be happy to pass them along to others via future (electronic) editions of the DAME Newsletter.

### **FEEDBACK**

DAMEs are again invited to contact the Office of Aviation Medicine with any complaints, comments or suggestions over performance of their delegated responsibilities.

Dr P S Wilkins  
Acting Director  
Aviation Medicine

# **PART 1 ADMINISTRATIVE ASPECTS**

## **A - DESIGNATED AVIATION MEDICAL EXAMINERS**

### **1. Appointment and Legal Status of Designated Aviation Medical Examiners**

In order to utilise a Flight Crew Licence or Air Traffic Service Licence, it is necessary to have a medical clearance at a standard appropriate to the licence held. Within Australia, designated medical practitioners perform the necessary medical examinations for the Office of Aviation Medicine of the Civil Aviation Safety Authority.

Designated medical practitioners perform medical examinations to meet the provisions of the Civil Aviation Act and Regulations. The practitioners approved to perform these examinations are known as Designated Aviation Medical Examiners (DAMEs) and are responsible to the Director of Aviation Medicine, who oversees the administration of the Designated Aviation Medical Examiner system.

### **2. Qualifications and Experience**

- a. Medical practitioners designated by the Office of Aviation Medicine for performance of Air Crew and Air Traffic Services medical examinations must be registered with the medical registration authority of the State or Territory of the Commonwealth or country in which they reside.
- b. Where possible, DAMEs should have had relevant training in Aviation Medicine and practical experience in aviation. Possession of the Australian Certificate in Civil Aviation Medicine will be a normal minimum requirement for appointment which will only be waived in exceptional circumstances.
- c. All DAMEs are expected to attend approved periodic training seminars and courses, at a frequency specified by the Director of Aviation Medicine.
- d. DAMEs must, so far as possible, be aware of the conditions in which applicants for medical certification are employed and are encouraged to acquire practical experience of these conditions.

- e. CASA DAMEs resident in Australia and New Zealand are expected to be current financial members of the Aviation Medical Society of Australia and New Zealand.
- f. Designation will generally only be granted to medical practitioners in full-time practice and for one address.

### **3. Duration of Designation**

Designation as an Aviation Medical Examiner will be for a period specified by the Civil Aviation Safety Authority. DAMEs are required to re-apply for designation at the conclusion of each such period.

Designation lapses if the DAME ceases to practise at the location for which he/she is appointed. Designation does not extend to the DAME's partners, assistants, locums or successors without the written consent of the Director of Aviation Medicine, which should be applied for well in advance of anticipated requirement.

### **4. Duties**

The DAME is required to comply with the following administrative obligations.

- a. To be satisfied as to the identity of each applicant for medical certification. (Applicants should be reminded to bring identifying documents when making the appointment for medical examination).
- b. To answer the questions in the medical questionnaire section of the medical examination form, in conjunction with the applicant.
- c. To examine personally each applicant presenting for examination.
- d. To perform or arrange for any investigations or specialist consultations which are necessary for the practitioner to be satisfied that the applicant meets the standards for the class of Medical Certificate for which application is made.
- e. To check the medical report form for completeness prior to forwarding it to the Office of Aviation Medicine.
- f. To forward to the Office of Aviation Medicine each medical examination report and ancillary reports as soon as possible. (N.B. Medical reports must not under any circumstances be given to applicants).

- g. To maintain an up-to-date knowledge of the relevant Civil Aviation Medical Standards and the techniques and administrative procedures required by the Civil Aviation Safety Authority.
- h. To notify the Director of Aviation Medicine of any change of address, telephone number or absence from active practice for a period of four weeks or more.
- i. To return the official stamp and all unused examination forms to the Office of Aviation Medicine of the Civil Aviation Safety Authority on cessation of appointment as a DAME.

## **5. Facilities and Equipment**

The DAME is required to provide the following facilities and equipment.

- a. A suitable examination room and general diagnostic equipment including a stethoscope, torch, auriscope and accurate sphygmomanometer;
- b. simple urine testing facilities;
- c. 24 Plate Ishihara pseudoisochromatic colour plates for colour vision testing;
- d. Distant Visual acuity chart for use at six metres;
- e. N series test types for near vision;
- f. Ophthalmoscope;
- g. A height measuring scale (cm);
- h. Weighing scales (kg);
- i. An electrocardiogram recorder - preferably multi-channel automated analysis type.

## **7. Responsibilities under the Civil Aviation Regulations**

Civil Aviation Regulations (CARs) specify that medical examinations for aircrew and air traffic service applicants will be conducted by medical practitioners approved by the Civil Aviation Safety Authority. An approved practitioner acts as a delegate of the Authority when performing such examinations. It is incumbent upon DAMEs to be aware of their responsibilities under CARs, namely: to examine applicants in such fashion as to be certain beyond reasonable doubt that the applicants meet the standards set out in the Regulations; then to document the results of examinations. Negligent certification of an applicant for an aviation licence which results in injury or death of the applicant, the applicant's passengers, or members of the public, could result in a civil action against the responsible DAME for damages. This part should be read in conjunction with Section B, paragraphs 3-5.

## **8. Protection under the Civil Aviation Regulations**

Civil Aviation Regulations provide that a DAME or any other medical practitioner is not subject to any civil or criminal liability for performing an indemnified act in good faith in the course of carrying out his or her functions under the Civil Aviation Regulations (CAR 6.04 refers).

For this purpose, an indemnified act means any act whereby a DAME or other medical practitioner advises CASA of concerns regarding an individual's ability to meet the required medical standard.

## **9. Fees**

For employees at the Civil Aviation Safety Authority who are required to hold licences (e.g. pilots employed for flight duties) the Civil Aviation Safety Authority will meet the costs of examination on receipt of a completed 'Claim For Payment' form. The applicant should produce this form to the medical examiner as evidence of entitlement to this service. Fees will only be paid at a level specified from time to time by the CASA Office of Aviation Medicine. Any amounts additional to the specified fees will be the responsibility of the applicant. The specified fees for routine medical examinations for Authority personnel will be advised in DAME Newsletters from time to time. Where additional time and effort have been required on the part of the DAME in organising specialist referrals and collating reports, the Office of Aviation Medicine will negotiate appropriate individual higher fees on each such occasion.

The 'Claim For Payment' form should be sent to the local CASA District Office for payment. (See Appendix 2 for the addresses of District Offices).

Alternatively, staff may pay for their medical examination at the time of consultation and, upon presentation of a receipt, claim reimbursement from the Authority.

Fees charged for medical examinations of other applicants are at the discretion of the DAME conducting the examination. For a straightforward examination, it has been usual for DAMEs to align fees with those currently paid for a full Life Insurance medical examination.

The costs of additional examinations which may be required to ascertain if an individual meets the medical standards for aviation medical certification will be the responsibility of the applicant concerned, except where the examinee is a Civil Aviation Safety Authority employee required to hold a licence. Where additional examinations relate to a health problem for which medical opinion, investigation or treatment is necessary, such examinations should attract health insurance rebates.

Where any additional investigation is indicated for a Civil Aviation Safety Authority employee required to hold a licence, for which charges the Civil Aviation Safety Authority will be responsible, the proposed investigation is to be authorised by the Office of Aviation Medicine before a booking is made.



## B - DOCUMENTATION AND ADMINISTRATIVE PROCEDURES

### **1. Licences - General**

Aircrew and air traffic services licences are issued to individuals who have met the relevant technical and theoretical standards. Once a licence is issued, it remains permanently valid. The licence must be accompanied by a valid Medical Certificate appropriate for the class of licence if the privileges of the licence are to be exercised.

### **2. Classes of Medical Certificates for Licence Types**

There are three medical standards relating to the various types of licences held. These three standards relate to Class 1, 2 and 3 Medical Certificates.

Class 1 This medical standard is applicable to all professional technical aircrew of powered aircraft, and is required for issue of Airline Transport Pilot Licence, Commercial Pilot Licence, Flight Engineer or Flight Navigator Licences.

Class 2 This medical standard is applicable to Student Pilot, Private Pilot, Commercial Pilot Balloons and Flight Radio Operator Licences.

Class 3 This medical standard is applicable to Air Traffic Services Officers (Air Traffic Controllers and Flight Service Officers).

### **3. Duration of Validity**

Unless otherwise advised by the Office of Aviation Medicine:

Class 1 Medical Certificate is valid for one year;

Class 2 Medical Certificate is valid for four years, for applicants less than 40 years of age on the day of issue, and in all other cases for two years; and

Class 3 Medical Certificate is valid for two years.

Where an applicant's medical condition is under review, the duration of licence validity may be varied at the discretion of the Director of Aviation Medicine.

#### 4. Special Reports and Tests Required for Class 1, 2 and 3 Certificates

- Class 1 - Initial Issue - ECG, audiogram, estimation of serum lipids and an examination by CASA Designated Aviation Ophthalmologist.
- Renewals
- ECGs are required at the first renewal after the 25th, 30th, 32nd, 34th, 36th, 38th and 40th birthdays, and annually thereafter.
  - Audiograms are required at the first renewal after the 25th birthday and every fifth birthday thereafter.
  - Estimation of serum lipids is required at the first renewal after the 25th birthday and every fifth birthday thereafter.
  - Examination by CASA Designated Aviation Ophthalmologist at age 60 and at two yearly intervals thereafter.

Class 2 - No special requirements, unless clinically indicated. Examination by a CASA Designated Aviation Ophthalmologist at age 60 and at five yearly intervals thereafter.

- Class 3 - Initial Issue - ECG, audiogram, estimation of serum lipids as for Class 1 and an examination by CASA Designated Aviation Ophthalmologist.
- Renewals
- ECGs are required at the first renewal after the 25th and 30th birthdays and every 2 years thereafter i.e. at every subsequent routine examination.
  - Audiograms are required at the first renewal after the 25th birthday and then at each renewal after every fifth successive birthday.
  - Estimation of serum lipids are required at the first renewal after the 25th birthday and then at each renewal after every fifth successive birthday.
  - Examination by CASA Designated Aviation Ophthalmologist at age 60 and at two yearly intervals thereafter.

NOTE: See Section under ECGs - Part I, Section D, Special Investigations  
1. Electrocardiographs

## C - THE MEDICAL ASSESSING SYSTEM

### **1. General**

The medical assessment form and the medical assessing system are designed so that all medical examinations which are straightforward and result in a pass assessment by the Designated Aviation Medical Examiner can be processed automatically.

When a completed medical assessment form is received at the Office of Aviation Medicine it is scanned into a computer system which uses optical character recognition to identify the applicant's aviation reference number (the licence number) and to scan the second page of the medical form in order to extract information on the applicant's licence type and current aircrew status. The remainder of the form is scanned by optical mark recognition to ensure that the parameters for a pass assessment are met and that any/all ancillary requirements are recorded. A captured electronic image of the assessment form and any related documents is stored as part of the applicant's medical history on an optical disk under the applicant's Aviation Reference Number (ARN), and is thus available for future retrieval or reference.

When the DAME issues a Medical Certificate the computer will update the CASA mainframe computer's data, advising all staff with access to the system that the applicant has a valid Medical Certificate. This update will include details of the licence class, expiry date and any conditions endorsed on the Medical Certificate.

Where an applicant fails to meet the relevant medical standard or where one or more of the parameters in the applicant's assessment falls outside the limits detailed on the medical assessment form, an operator will manually check the medical assessment form and proceed as then appropriate.

### **2. Medical Questionnaire and Examination Forms**

Examples of Original (O) and Renewal (R) medical assessment forms are included at appendices 5 and 6 to this Handbook.

#### General

There are two forms - Original and Renewal. The first sheet of each form is designed for manual completion by the applicant, then to be passed to the DAME's clerical staff to enable the information contained therein to be typed onto the second page of the forms (at Sections 1 and 2).

The first page's Section 1 and Section 2 must be typed in standard type characters to enable the information contained therein to be captured electronically by the Office of Aviation Medicine's computer system's optical scanners.

Sections 3, 4, 5, and 6 of the forms are to be marked with a BLACK FELT PEN in the appropriate response square. The mark is to be a cross or strike so that at least 25% of the response square contains black ink, to enable the computer system to read the responses. The computer is unable to identify comments made outside the response squares, but these will be read by the assessing staff and stored as captured electronic images as part of the applicant's medical records.

CASA requires that the DAME must personally ask the questions of the applicant in Section 4 and that the DAME must personally mark responses on the form. The applicant MUST NOT be permitted to complete this Section of the form.

Trivial surgical operations which have no relevance to certification should be discounted when marking responses in questionnaire boxes. For operations such as tonsillectomy or wisdom tooth removal, answer "NO" to operations.

It is mandatory that the DAME is satisfied as to the identity of the applicant. When an examiner does not know or recognise an applicant, then formal identification may be undertaken by the usual means such as photographic driver's licence or passport. If these are not available, a photograph of the applicant certified in a similar manner to passport photographs is required. Assessment cannot be finalised until this identification is complete.

#### Original Medical Assessment Form (See appendix 5)

This form comprises eight pages and an expanded health questionnaire section (Section 4). It is to be used for all original (first ever) medical examinations.

It is also to be used for the first examination for a change of standard (e.g. Class 2 to Class 1 Medical Certificate) or where an applicant's Medical Certificate has lapsed for five years or more.

#### Renewal Medical Assessment Form (See appendix 6)

This form comprises seven pages because of its abbreviated health questionnaire section. Except as earlier stated, it is to be used for all examinations for renewal of Medical Certificates.

NOTE: In the near future, the Office of Aviation Medicine plans to replace both existing medical assessment forms with 'paperless' computer-generated assessments which DAMEs will lodge electronically.

### **3. The Medical Certificate (See appendix 7)**

This Certificate is required by the licence holder to complement and validate the licence. In order to exercise the privileges of a licence, the licence holder must possess both the licence and a valid Medical Certificate for the class of licence held. The Medical Certificate indicates the medical standard and the validity dates for each class of medical standard. The Certificate also indicates any medical restriction(s) that may affect the Certificate's validity, and hence the use of the licence.

In some circumstances, it is required that only the Office of Aviation Medicine should issue or reissue an applicant's Medical Certificate. In such cases, the previous Certificate will be endorsed 'Renew by CASA only' (Restriction 1), and the DAME may not revalidate the old Certificate.

### **4. Revalidation**

Where an applicant, having been medically examined by a DAME, is found to meet the required medical standard, the Office of Aviation Medicine will issue the appropriate Medical Certificate on receipt of the medical assessment form. If the medical examination is carried out within 28 days prior to the expiry date on the Medical Certificate, the DAME should revalidate the old Medical Certificate for a period of two months from the expiry date. In all other cases, the DAME should revalidate the Medical Certificate for two months from the date on which the examination is concluded. Revalidation of the old Medical Certificate is achieved by signing, restamping and dating the front of the old Medical Certificate with the new (two month) expiry date. The Office of Aviation Medicine will forward a new Medical Certificate to the applicant upon receipt of a medical assessment form which confirms that the applicant meets the required medical standard(s).

Certificates stamped 'Renew by CASA only' are not to be revalidated by DAMEs. The medical examination form and appropriate additional reports are to be forwarded to the Office of Aviation Medicine for further assessment and possible revalidation.

## **5. Assessments Other than Pass Assessments**

The Director of Aviation Medicine is the only delegate who may cancel a Medical Certificate. The DAME may only (re)certify an applicant as 'pass' (i.e. meeting required medical standards). If an applicant does not meet the required medical standard(s) for (re-)issue of the licence, a 'doubtful' assessment is then appropriate. Relevant investigations and specialist opinion(s) should be obtained and the examination form and supporting documents sent to the Office of Aviation Medicine together with the DAME's opinion concerning the applicant's fitness. The case will then be assessed by Aviation Medical Officers in the Office of Aviation Medicine and, if necessary, discussed by a panel of doctors.

## **6. Medical Examiner's Civil Aviation Safety Authority Stamps**

This stamp contains the Designated Aviation Medical Examiner number which consists of a letter (N,Q etc) which is the state/territory code, plus a 3 digit number. The stamp is a personal number and is not to be loaned to or used by any other medical practitioner without the prior approval of the Director of Aviation Medicine. This stamp should be kept in a secure place, and used on all correspondence with the Authority and on all revalidated Medical Certificates.

## D - SPECIAL INVESTIGATIONS

### **1. Electrocardiographs**

Electrocardiographs are required at set intervals for applicants for Class 1 and Class 3 Medical Certificates.

When an ECG is forwarded to the Office of Aviation Medicine, it is to be mounted on the space provided on the back of the last page of the medical examination form. When the ECG is produced by a multi-channel machine, the strips may be mounted uncut on A4 paper. However, where the ECG machine is of the single channel type, the tracing should be cut, mounted and appropriately labelled. When self-reporting ECG machines are used, the report is to be included with the ECG tracing. The Office of Aviation Medicine sends all ECGs, apart from those reported as normal by self-reporting machines, to a cardiologist for interpretation. This process usually takes one week.

All ECGs should be examined by the DAME and assessed as normal or abnormal, with details of any abnormality stated on the medical assessment form in the appropriate area.

Initial issue ECGs performed for Class 1 and Class 3 Certificates are to be sent to the Office of Aviation Medicine with the medical examination form. Subsequent ECGs are to be read and retained by the Designated Aviation Medical Examiner, with two exceptions.

- a. At the first renewal after the applicant's 25th birthday and at five yearly intervals thereafter, whenever an ECG is required, the ECG tracing is to be sent to the Office of Aviation Medicine for incorporation in the applicant's medical record.
- b. Any abnormal ECG must be sent to the Office of Aviation Medicine, together with the medical assessment and cardiologist's report, if applicable.

## **2. Audiograms**

The pure-tone audiogram performed by a DAME or any other person is treated by the Office of Aviation Medicine as a screening test only and is never used as the final arbiter of an applicant's ability to meet the hearing requirements for a Medical Certificate. Audiograms performed by DAMEs are acceptable. However, any audiometer used for CASA-required audiograms must have been calibrated within two years of the date of such examinations.

The audiogram result is to be stated in the medical assessment form even when a printed results slip is included with the form when lodged.

DAMEs should enclose the audiogram result print-out with the medical assessment forms for all original Class 1 and Class 3 applicants.

## **3. Assessment by Designated Aviation Ophthalmologists (See appendix 8)**

An applicant for an original issue of Class 1 or Class 3 Medical Certificate is required to be examined by a Designated Aviation Ophthalmologist. Any applicant who fails to meet the required visual standard, or in whom some ophthalmological pathology is suspected, should also be considered for referral to a Designated Aviation Ophthalmologist for further assessment.

## **4. Temporary Incapacity of Certificate Holders**

Australian Civil Aviation Regulations require that a licence holder must not perform the duties in respect of which he or she is licensed during any period during which he or she suffers an incapacity resulting from illness or injury which is likely to impair his or her efficiency in performing the required duties. CARs also require that licence holders holding professional licences who are medically unfit for a period of more than 7 days, and non-professional licence holders who are medically unfit for a period of more than 30 days, are not to resume the performance of duties until a DAME has certified their recovery from the incapacity. DAMEs are not necessarily required to perform complete medical examinations in these circumstances, but should be satisfied that the applicant has recovered from the illness or injury and meets the required medical standard(s) for exercise of the privileges of any licence(s) held by the applicant.



## **5. Additional investigations and specialist opinions**

When a DAME detects a significant abnormality in the history or physical examination of an applicant, appropriate specialist referral and/or other investigation(s) should be arranged to determine whether the applicant meets the required medical standard(s). When the DAME has collated all relevant investigations and reports, the medical assessment form should be forwarded to the Office of Aviation Medicine, together with all relevant reports and results of investigations which have been conducted. The DAME should indicate on the medical assessment form his or her assessment as to whether or not the individual meets the required standard(s).

Where an applicant fails to return for follow-up or the assessment cannot be completed in time, the DAME should forward the medical assessment form (completed so far as possible) to the Office of Aviation Medicine within 30 days, with a note indicating the reason for referral(s) and/or stating that the applicant has failed to return for the completion of the examination.

## 6. Flow Chart - Special Periodic Examinations Required

### LEGEND

AUDIO	hearing test - audiogram
EYE	specialist eye examination
ECG	electrocardiogram
SERUM LIPIDS	Total Cholesterol (preferred fasting) HDL-c and LDL
STRESS ECG	exercise ECG on Bruce Protocol (no requirement for cardiologist referral)

- Note :
1. All ECGs performed in connection with medical examinations marked with an asterisk (\*) are to be forwarded to the Office of Aviation Medicine.
  2. All abnormal ECGs are to be forwarded to the Office of Aviation Medicine with medical assessment forms.
  3. Serum lipids estimations are to include total cholesterol and high and low density lipoprotein cholesterol.

CERTIFICATE	CLASS 1		CLASS 2	CLASS 3
FREQUENCY OF EXAMINATION	<b>ATPL</b> 12 MONTHLY  6 MONTHLY OVER AGE 60 YEARS	<b>CPL</b> 12 MONTHLY	4 YEARLY UNDER  2 YEARLY OVER AGE 40	2 YEARLY
REQUIREMENTS INITIAL ISSUE	Audio, Eye, ECG, Blood Lipids			Audio, Eye, ECG, Blood Lipids

**CLASS 1 AND 3**

**ADDITIONAL REQUIREMENTS AT EACH RENEWAL EXAMINATION AFTER AGE:**

25*	Audio	Blood Lipids		ECG
30*	Audio	Blood Lipids		ECG
32				ECG
34				ECG
35	Audio	Blood Lipids		
36*				ECG
38				ECG
40*	Audio	Blood Lipids		ECG <b>Yearly</b>
45*	Audio	Blood Lipids		
50*	Audio	Blood Lipids		
55*	Audio	Blood Lipids		
60*	Audio	Blood Lipids	Eye	<b>Stress ECG Yearly</b>
62*			Eye	
64*			Eye	
65*	Audio	Blood Lipids	Eye	
66*			Eye	
68*			Eye	
70*	Audio	Blood Lipids	Eye	
72*			Eye	
74*			Eye	
75*	Audio	Blood Lipids		
76*			Eye	
78			Eye	
80	Audio	Blood Lipids	Eye	

Requirements for applicants aged more than 80 years will be advised individually.

**Class 2**

Additional Requirements at First Renewal Examination after Age 60:

Examination and Report by Designated Aviation Ophthalmologist. This must be repeated every five years thereafter.

## E - MEDICAL CERTIFICATE ENDORSEMENTS

### **1. General**

Whenever appropriate, the Office of Aviation Medicine will place a condition of use on an applicant's Medical Certificate which influences the validity of the Certificate. When a new condition is required (such as when an applicant requires reading glasses), the DAME will include the relevant endorsement on the Medical Certificate and complete the relevant section of the medical assessment form.

### **2. Frequently Used Conditions Endorsed on Medical Certificates**

<b>Number</b>	<b>Endorsement</b>	<b>Condition</b>
1.	Renew by CASA only.	The DAME is not to revalidate the Medical Certificate. Any revalidation or renewal must be done by the staff of the Office of Aviation Medicine.
2.	Visual Correction required.	When correction is required to enable the applicant to meet the visual standard. A spare pair of lenses must be carried/available whenever the applicant exercises the privileges of the licence.
3.	Not valid for mustering or agricultural flying.	Self explanatory
4.	Not Applicable	Not currently used.
5.	Valid in Australian Airspace only.	Self explanatory
6.	Not valid for ATPL operations.	Self explanatory
7.	Not valid for rotary wing operations.	Self explanatory

<b>8.</b>	Holder to fly as, or with, a qualified co-pilot.	Self explanatory
<b>9.</b>	Holder to fly with safety pilot only.	Self explanatory
<b>10.</b>	Not Applicable	Not currently used.
<b>11.</b>	Special conditions apply (see over).	(Specific, detailed conditions are provided on an individual basis)
<b>12.</b>	Medical waiver issued under CAR 6.10.	Self explanatory
<b>13.</b>	Valid in Australian Airspace only, valid up to and including CPL.	Self explanatory

### **3. Multi-Crew Endorsement**

When a Class 1 Certificate is endorsed with the condition "Holder to Fly as, or with, a qualified co-pilot only", the following applies.

An individual who has such a restriction on a Class 1 Medical Certificate is restricted to operating either as or with a qualified co-pilot while exercising the privileges of that licence.

The 'as, or with, co-pilot' condition does not:

preclude the holder of such a Medical Certificate from being left on the flight deck alone in a two pilot operation;

limit the holder of the Medical Certificate from operating with another individual who holds such a restriction on a Medical Certificate in a two-crew operation; or

preclude the holder from operating as a single pilot on a flight deck should the other pilot of a two pilot operation become incapacitated.

When a Class 2 Certificate is endorsed with the condition 'Holder to fly with safety pilot only', the following applies:

**1. Aircraft Requirements:**

side by side seating in the cockpit; and  
dual flying controls.

**2. Pilot Requirements:**

to wear a shoulder restraint harness at all times while flying.

**3. Safety Pilot Requirements:**

to occupy a control seat;

to be endorsed and current for the aircraft;

to be appropriately rated for the flight conditions;

to be aware of the type of incapacity the pilot may suffer in flight; and

to be prepared to take over the aircraft controls during critical phases of flight.

## F - DESIGNATED AVIATION MEDICAL EXAMINER RECOMMENDATIONS

Having completed the medical assessment examination and obtained results of any relevant investigations and opinions, the DAME is in a position to decide whether the applicant meets the requirements for the medical standard sought. The examiner's opinion should be given in the appropriate box of the medical assessment form, with any other comments or suggestions written in the designated additional space. Any medical assessment, other than a clear pass assessment, will be reviewed by the Aviation Medical Officers in the Office of Aviation Medicine. **The DAME must not re-validate the Medical Certificate for any assessment other than a clear pass assessment.**