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AIC
14/2017
24th October 2017

Aeronautical Information Services
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BOTSWANA

DESIGNATION OF AVIATION MEDICAL EXAMINERS

1. PURPOSE

This AIC is therefore issued to provide guidance, information and procedures required to be followed in applying for Authorisation as an Aviation Medical Examiner (AME)

2. STATUS OF THIS AERONAUTICAL INFORMATION CIRCULAR

This AIC is an original issuance.

3. EFFECTIVE DATE

This AIC becomes effective immediately.

4. APPLICABILITY

This AIC is applicable to all individuals seeking Authorisation as an Aviation Medical Examiner.

5. RELATED REGULATIONS

- Civil Aviation (Personnel Licensing) (General) Regulations, 2013.

6. RELATED PUBLICATIONS

- ICAO Annex 1
- ICAO Doc 8984
- ICAO Doc 9379

7. DEFINITIONS AND ACRONYMS

7.1 The following definitions are used in this circular

Authority means the CAAB, unless otherwise specified.

7.2 The following acronyms are used in this circular

PEL Office Personnel Licensing Office

AME Aviation Medical Examiner

8. GUIDANCE AND PROCEDURES

8.1 General Information

8.1.1 **The** prescribed application forms for the designation as an Aviation Medical Examiner may be obtained from the Authority's Personnel Licensing Office or downloaded from CAAB website at www.caab.co.bw.

8.2 Responsibilities of an AME

8.2.1 AME's have certain responsibilities directly related to the Authority's safety programme. They have a responsibility to ensure that only those applicants who are physically and mentally able to perform safely may exercise the privileges of licences and ratings.

8.2.2 To properly discharge the duties associated with these responsibilities, AME's shall have received training in aviation medicine and shall maintain familiarity with general medical knowledge applicable to aviation. They also shall have sound knowledge and understanding of the Civil Aviation rules, regulations, policies and procedures related to the medical certification. AME's must also possess acceptable equipment facilities necessary to carry out the prescribed examinations.

8.3 Authorisation of an AME

8.3.1 The Authority will issue authorisation under Regulation 113 (1) of the Civil Aviation (Personnel Licensing) (General) Regulations, 2013 only to professionally qualified and appropriately licensed doctors.

8.4 Application Requirements

8.4.1 An applicant will be required to bring the following documents attached to the application form on applying for the authorisation.

- (a) A properly completed prescribed Application Form;
- (b) A certified report to demonstrate adequate competence in aviation medicine and substantiating the experience and training shown on the Application Form;
- (c) Botswana licence to practise medicine
- (d) A statement affirming that there are no current restrictions of medical practice and there are no adverse actions proposed or pending that would limit medical practice by the Botswana licensing board, any medical society, any hospital staff, or by any other organization that may have licensing or certification authority and
- (e) Medical degree.

8.5 The Applicant's Identity

8.5.1 Present a proper identification in the form of Government-issued identification document or a Passport, details of which should be the same as the personal information provided on the prescribed application form. If the applicant's identity cannot be verified, will be rejected, and the application will have to return with the proper identification.

8.6 Conditions of Authorisation

8.6.1 To be designated as an AME, the applicant must comply with the following conditions:

8.6.1.1 **Credentials:**

- a) The AME must notify the Authority at any time there is a change in status of the licence to practice medicine;

8.6.1.2 **Professionalism:**

- a) Be informed of the principles of aviation medicine; be thoroughly familiar with instructions as to techniques of examination, medical assessment, and certification of all persons requiring aviation medical certification as specified in the AME Guidance Manual and abide by the policies, rules and regulations of the Authority.

8.6.1.3 **Demonstration of Competency Before Designation:**

- a) Before appointment, the AME applicant is required to demonstrate competency as per Competency Framework established by Appendix B of the ICAO Doc 8984 – Manual of Civil Aviation Medicine. The applicant must be able to;
 - b) Identify the applicant,
 - c) Have appropriate forms completed (including any declarations and consents),
 - d) Clarify administrative details,
 - e) Provide applicant with information about privacy/confidentiality,
 - f) Verify that the regulatory context of the process has been addressed,
 - g) Initiate interaction and discussion about general issues in such a way as to promote a non-threatening environment,
 - h) Enquire about work and home situations and challenges,
 - i) Demonstrate familiarity with typical aviation workplaces,
 - j) Show interest in the applicant's general health and well-being,
 - k) Question the applicant on the written history to elicit further detail on the positive or omitted responses,
 - l) Question applicant on negative responses in a written history which may be relevant (as indicated by other responses),
 - m) Question further in accordance with the risk profile of the applicant,
 - n) Continually update mental picture of potentially important issues,
 - o) Perform a systematic examination according to the requirements of the licensing Authority,
 - p) Perform targeted examination as indicated,
 - q) Focus examination on high risk areas pertaining to functional capacity, specifically visual acuity,
 - r) Focus examination on high risk areas pertaining to functional capacity, specifically colour vision,
 - s) Focus examination on high risk areas pertaining to functional capacity, specifically hearing,

- t) Focus examination on high risk areas relating to behaviour, specifically evaluating psychiatric and psychosocial factors,
- u) Focus examination on high risk areas relating to behaviour, specifically identifying abnormal cognitive functions,
- v) Focus examination on high risk areas relating to behaviour, specifically assessing for potential problematic use of substances (such as alcohol, prescription and non-prescription medications, and non-prescription drugs used for recreational purposes),
- w) Focus on high risk areas pertaining to functional capacity, specifically sleep disorders and fatigue,
- x) Conduct and interpret electrocardiograms,
- y) Interpret pure-tone audiometry (or alternative methods of assessing hearing),
- z) Interpret vision testing,
- aa) Request common patterns from clinical findings which suggest the need for further examination,
- bb) Arrange appropriate investigations,
- cc) Compile and review findings,
- dd) Consider work context and assess risk,
- ee) Formulate recommendation,
- ff) Communicate opinion to applicant and Authority as required,
- gg) Collate documents and correspond with the licensing Authority, and
- hh) Communicate and store information as required.

8.7 Examinations:

- 8.7.1 The AME shall personally conduct all medical examinations at an established office address. Paraprofessional medical personnel (e.g. nurse, nurse practitioners, doctor assistants, etc.) may perform limited parts of the examinations (e.g. measurement of visual acuity, hearing, phorias, blood pressure, and pulse, and conducted of urinalysis and electrocardiography) under the supervision of the AME.
- 8.7.2 The AME shall conduct the general physical examination, sign and submit the Application form, copy of the medical certificate and the report to the Authority in seven (7) working days in a sealed confidential envelope. In all cases, the AME shall review, certify, and assume responsibility for the accuracy and completeness of the full report of the examination.
- 8.7.3 The Authority retains the right to reconsider any action of an AME under Regulation 113 (9) of the Civil Aviation (Personnel Licensing) (General) Regulations, 2013.

8.8 Discrepancies and Ineligibility

- 8.8.1 If a discrepancy that cannot be immediately corrected exists in any of the documents,
- 8.8.2 The application and all submitted documents will be returned to the applicant and should not be re-submitted until the discrepancy has been rectified/corrected.

8.9 Medical Examination Fees

- 8.9.1 The medical examination fees charged by AMEs should, as a general rule, be equivalent to the fees generally charged for a comparable medical examination service.

8.10 AME's Contact

- 8.10.1 An AME will be listed in the PEL Office or CAAB Website with the office location and telephone number. The AMEs are required to promptly advise the Authority in writing, of any change in office location or telephone numbers.

8.11 Conduct of the Examination

- 8.11.1 The AME will comply with the policies, orders and regulations of the Authority. The AMEs attention is drawn to Regulation 114 (1) and (2) of the Civil Aviation (Personnel Licensing) (General) Regulations in which it is indicated that an applicant for a medical certificate shall sign and furnish to the medical examiner a declaration stating whether he or she has previously undergone such an examination and, if so state the results of the examination and with personal certified statement of medical facts accurate and complete medical information or history or fails to authorize the release of such information.
- 8.11.2 An AME must not allow personal prejudices to interfere with the objective of examining an applicant.
- 8.11.3 It is AME's responsibility to maintain personal proficiency and currency, and for remaining up to date with the regulatory and procedural changes, with regard to aviation medicine in order to promote aviation safety at all times.
- 8.11.4 If your performance as an aviation examiner is found unsatisfactory, the Authority may require you to be investigated at any time to confirm your designation status.

8.11.5 The investigation will be conducted by a team of Inspectors of the Authority lead by the Medical Assessor.

8.11.6 On receipt of the investigation report, the Authority may suspend or revoke the designation certificate held by that medical examiner.

8.11.7 The Authority shall notify in writing the medical examiner informing him the reasons for the suspension and explain how the examiner may correct the discrepancies. The suspension status will remain in effect until the discrepancies has been rectified or corrected; the Authority determines that the examiner's status can be re-instated.

8.12 Prohibited Examinations

8.12.1 An AME may not perform self-examination for issue of a medical certificate nor issue a medical certificate to him or herself.

8.13 Duration of an AME's Authorisation

8.13.1 Authorisations of AMEs are valid and effective for 3 years from the date issued unless terminated earlier by the Authority. For continued service as an AME, a new Authorisation shall be issued every 3 years.

8.14 Authority of the AMEs and System of Identification

8.14.1 An AME is authorized to:

- (i) Examine an applicant in accordance with medical practice, under PART XIV of the General Regulations.
- (ii) Submit medical evaluation reports to the Authority as required by Regulation 113 (10) of the General Regulations within seven (7) working days.
- (iii) Report to the Authority and individual cases where, in his judgement, an applicant for a licence or certificates fails to meet any requirement, which could jeopardize flight safety as required by regulation 115 (2).
- (iv) Defer issuance of a medical certificate to the Authority in circumstances where he/she is in doubt of the medical fitness or otherwise of the applicant. The Authority shall have the final say on such issues after subjecting the applicant to further medical assessment and investigation(s).

8.15 Authorisation Numbering:

8.15.1 A system of Authorisation numbering shall be used to identify the examiner's Authorisation, indicating each examiner's designation number.

8.15.2 There will be a stamp issued by the Authority for use by an examiner on certifying medical certificates, reports and records.

8.16 Aviation Medical Examiner Seminars

8.16.1 The purpose of AME Seminars is to develop aeromedical knowledge and clinically proficient AMEs committed to aviation safety.

8.16.2 They are also designed to provide standardization in the application of the Authority medical certification policies, procedures and regulations.

8.16.3 After initial designation, and as a requirement for continued designation, an AME should attend an AME seminar every year. More than 3 years should not elapse between AME seminar attendances.

8.16.4 Travel costs and other expenses for the AME to attend seminars are the responsibility of the AME.

8.17 Familiarization Flight

8.17.1 In order to acquire practical knowledge of, and experience in the conditions in which the holders of licenses, certificates, ratings and Authorisations carry out their duties as per Regulation 113 (4) of the General Regulations.

8.17.2 The Authority will programme an AME on a familiarization flight in compliance with the requirements of Regulation 113 (4) of the General Regulations.

8.18 Facilities and Equipment

8.18.1 The applicant shall have adequate facilities for performing the required examinations and possess or agrees to obtain such equipment prior to conducting any Aviation Medical examinations. The equipment is as listed below:

- a) **Standard Snellen Test Types for visual acuity (both near and distant) and appropriate eye lane.**
- Near Vision Acuity Test Card may be used for near and intermediate vision testing. Metal, Opaque plastic or cardboard occlude.

b) **Muscle Test-Light:**

- May be a spot of light 0.5 cm in diameter a regular muscle-test light, or an ophthalmoscope.

c) **Maddox Rod:**

- May be hand type.

d) **Horizontal Prism Bar**

- Risley, Hughes, or hand prism are acceptable alternatives.

e) **Colour Vision Test Apparatus:**

- Standard Pseudoisochromatic plates, (American Optical Company (AOC), 1965 edition; AOC-HRR, 2nd edition); Dvorine, 2nd edition; Ishihara, Concise 14-, 24-, or 38- plate editions; or Richmond (1983 edition, 15 plates). Acceptable substitute are: Farnsworth Lantern; Keystone Orthoscope; Keystone Telebinocular; LKC Technologies Inc., Apt 5 colour Vision Tester; OPTEC 2 000 Vision Tester (Models 20 00 PAME, and 2000 OPI); Titmus Vision Tester; Titmus II Vision Tester (Model Nos. TII and TIIS); and Titmus 2 Vision Tester (MODELS T2A and T2S).
- A wall Target consisting of a 50-inch square surface with a matte finish (may be black felt or dull finish paper) and a 2-mm white test object (may be a pin) in a suitable handle of the same colour as the background.
- Other vision test equipment that is acceptable as a replacement for 1 through 4 above includes the American Optical Company Site-Screener, Bausch and Lomb Orthorator, Keystone Orthoscope aor Telebinocular, Titmus Vision Tester, or StereoOptical Co. OPTEC 2000 Vision Tester
- Standard doctor diagnostic instruments and aids including those necessary to perform urinalysis.

f) **Electrocardiography equipment:**

- Aviation Medical Examiners must have access to electrocardiographic equipment. Digital equipment with electronic transmission capability may be used if available.

j) **Audiometric equipment:**

- All Aviation Medical Examiners must have access to audiometric equipment or a capability of referring applicants to other medical facilities for audiometric testing.

8.19 Procedure for Inspection of an AME Facility

- 8.19.1 The medical facility of the AME shall be inspected prior to his/her appointment as an AME and periodically after Authorisation by the Authority and the Medical Assessor. The procedure for the inspection of the AME facility will be as follows:
- 8.19.2 The AME shall be notified of the inspection of his medical facility by the Authority in writing at least 5 working days before the inspection is carried out. The AME is required to notify the Authority of his/her inability to be available for the inspection. A new date will then be agreed upon between the Authority and AME.
- 8.19.3 On arrival at the medical facility of the AME the medical assessor will introduce himself/herself to the facility receptionist, and request to see the AME with his/her official letter of designation.
- 8.19.4 The medical assessor is also required to officially brief AME of his reason for the inspection and discuss the modality for the inspection with the AME. The checklist to be used for the inspection will be discussed in detail with the AME and any comments made by the AME noted by the medical assessor.
- 8.19.5 The medical assessor will request the AME to sign the relevant areas of the checklist and proceed with the facility inspection as outlined in the checklist.
- 8.19.6 The medical assessor will after completing the inspection brief the AME of any preliminary finding(s) that will need to be addressed pending a more detailed report.
- 8.19.7 The medical assessor will finish his/her documentation of the inspection and write a detailed report of the inspection. The medical assessor will indicate his/her findings and recommendations in the relevant part of the checklist.
- 8.19.8 The findings and recommendations of the medical assessor will be communicated to the AME. The AME will be given time to address any finding and follow-up visit paid at a later date by the medical

assessor to confirm that corrective action has been carried out by the AME.

8.20 Issue of the Letter of Authorisation

8.20.1 When an applicant has satisfactorily met all requirements for the Authorisation, and the prescribed application form has been completed, the letter of Authorisation will be issued or renewed stating scope of authority given to an AME. Class 2 and 3 Authorisations will be given to AMEs with basic training in aviation medicine and Class 1 to an AMEs with advanced training in aviation medicine.

8.21 Renewal or Re-authorisation

8.21.1 For the re-authorisation the Authority shall consider that at least ten (10) medical examinations have been performed by the AME and that the AME's services are still required.

8.21.2 An AME should apply for renewal of the Authorisation at least 21 days before it expires. If the AME has not reapplied within 21 days before the expiration date it would be inferred that AME does not desire to renew the Authorisation.

8.21.3 The AME must submit to the Authority a completed prescribed application form for reauthorisation along with a list of activities and tests done within the previous 12 months preceding the application.

8.22 Termination of the Authorisation

8.22.1 The Authority shall identify those AMEs committing serious certification errors and notify them, in writing, as required, so that appropriate action may be taken.

8.22.2 The AME's services may be terminated by not renewing the Authorisation, rather than by cancellation of the Authorisation during its validity period.

8.22.3 Where there is no longer a need for the examiner's services the Authorisation will be terminated either for the whole Authorisation or for part of the Authorisation.

8.22.4 Termination or non-renewal of Authorisation may be based in whole or in part on the following criteria:

- a) No examinations performed within the 12 months of the initial Authorisation;
- b) Disregard of or failure to demonstrate knowledge of the Civil Aviation rules, regulations policies, and procedures;
- c) Careless or incomplete reporting of the results of medical examinations;
- d) Failure to comply with the mandatory AME training requirements;
- e) Unprofessional office maintenance and appearance;
- f) Unprofessional performance of examinations;
- g) Failure to promptly deliver medical examinations evaluation reports to the Authority;
- h) Loss, restriction, or limitation of a licence to practice medicine;
- i) Any action that compromised public trust or interferes with the AME's ability to carry out the responsibilities of his or her Authorisation;
- j) Any illness or medical condition that may affect the doctor's sound professional judgment or ability to perform examinations;
- k) Arrest, indictment, or conviction for violation of law;
- l) Request by the doctor for termination of Authorisation; and
- m) Any other reason the Authority deems appropriate.

This circular becomes effective immediately.