



**AIRWORTHINESS**

**ADVISORY**

**CIRCULAR**

CIVIL AVIATION AUTHORITY OF BOTSWANA

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CAAB Document AAC-017

**PERSONNEL LICENCING,  
QUALIFICATION AND TRAINING  
REQUIREMENTS**

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## 1. PURPOSE

This Airworthiness Advisory Circular (AAC) provides guidance to CAAB Inspectors and Aircraft Maintenance Organisations (AMO) maintenance personnel on the licensing, qualification and training requirements for maintenance personnel necessary to support the activities of AMOs approved under the Civil Aviation (Approved Maintenance Organisations) Regulations, 2012.

The regulations addressing Personnel Licensing are contained within the Civil Aviation (Personnel Licensing)(Other Personnel) Regulations 2013. This regulation addresses the qualification and training for certifying staff.

## 2. STATUS OF THIS ADVISORY CIRCULAR

This Airworthiness Advisory Circular (AAC-017) Revision 01 supersedes the original revision published on 05 April 2013.

## 3. EFFECTIVE DATE

This AAC revision becomes effective immediately.

## 4. APPLICABILITY

This AAC is applicable to persons and organizations involved in maintenance of aircraft and other aeronautical products. AMOs should ensure that their certifying staff are in compliance with this AAC.

## 5. RELATED REGULATIONS

*Copies may be obtained from the Government Printer.*

- Civil Aviation (AMO) Regulations, 2012 - *Regulation 19*.
- Civil Aviation (Personnel Licensing) (General) Regulations 2013
- Civil Aviation (Personnel Licensing) (Other Personnel) Regulations 2013.

## 6. RELATED PUBLICATIONS

- ICAO Annex 1 – Personnel Licensing
- ICAO Doc 9760 – Airworthiness Manual

## 7. DEFINITIONS AND ACRONYMS

7.1 The following definitions are used in this circular:

**Authority** means the CAAB, unless otherwise specified.

**Line Maintenance:** should be understood as any maintenance that is carried out before flight to ensure that the aircraft is fit for the intended flight. Line Maintenance may include:

- Trouble shooting
- Defect rectification
- Component replacement with use of external test equipment if required (component replacement may include components such as engines and propellers),

*Advisory Circulars (ACs) are intended to provide advice and guidance to illustrate a means, but not necessarily the only means, of complying with the regulations, or to explain certain regulatory requirements by providing informative, interpretative and explanatory material. Where a regulation contains the words "prescribed by the Authority," the AC may be considered to prescribe a viable method of compliance, but status of that "prescription" is always "guidance" (never regulation).*

- Scheduled Maintenance (e.g. some A Checks) and/or checks including visual inspections that will detect obvious unsatisfactory conditions / discrepancies but do not require extensive in depth inspection. It may also include internal structure, systems and powerplant items which are visible through quick opening access panels / doors.
- Minor repairs and modifications which do not require extensive disassembly and can be accomplished by simple means.
- For temporary or occasional cases (ADs, SBs) the Quality Manager may accept base maintenance tasks to be performed by line maintenance organisation provided all requirements are fulfilled as defined by the competent authority.

**Base Maintenance:** Maintenance tasks falling outside these criteria (i.e. line maintenance) are considered to be Base Maintenance (e.g. C Checks).

7.2 The following acronyms are used in this circular

**AD** Airworthiness Directive

**ATPL** Air Transport Pilot's License

**CAAB** Civil Aviation Authority of Botswana

**CPL** Commercial Pilot's License

**ICAO** International Civil Aviation Organization

**MEL** Minimum Equipment List

**MPM** Maintenance Procedures Manual

**MRC** Maintenance Release Certificate

**SB** Service Bulletin

## 8. BACKGROUND

Regulation 19 of the Civil Aviation (AMO) Regulations, 2012 requires an AMO to establish the competence of personnel involved in aircraft maintenance in accordance with a procedure and a standard acceptable to the CAAB. Any person signing a Maintenance Release Certificate (MRC) should be qualified as appropriate to the work performed and as acceptable to the Authority. The Regulation further requires an AMO to establish a training program for personnel which includes training in knowledge and skills related to human performance, including coordination with other maintenance personnel and flight crew.

## 9. LICENCE REQUIREMENTS

- 9.1 Any AMO maintaining aircraft should have a sufficient number of, and appropriately rated, certifying staff qualified in the appropriate categories in accordance with Part III (Reg. 6) of Civil Aviation (Personnel Licensing) (Other Personnel) Regulations 2013.
- 9.2 No person may qualify to act as an Aircraft Maintenance Engineer unless he or she is at least 18 years of age (Regulation 6.(2)).

- 9.3 The Aircraft Maintenance Licence shall be issued by the CAAB in accordance with Civil Aviation (Personnel Licensing) (Other Personnel) Regulations 2013.

## 10. FOREIGN LICENCES AND MILITARY EXPERIENCE

- 5.1 A person holding a current and valid aircraft maintenance engineer licence issued by a foreign Contracting state may apply to the CAAB for a validation of such a licence in accordance with Reg. 16 of Civil Aviation (Personnel Licensing) (Other Personnel) Regulations 2013 provided the licence held was issued in accordance with ICAO Annex I.
- 5.2 The holder of a current and valid aircraft maintenance engineer licence issued by a foreign Contracting State may apply to the CAAB for a conversion of the licence in accordance with Reg. 17 of Civil Aviation (Personnel Licensing) (Other Personnel) Regulations 2013, provided the licence held was issued in accordance with ICAO Annex I.
- 5.3 A military aircraft maintenance engineer may apply for an aircraft maintenance engineers licence in accordance with Reg. 18 of Civil Aviation (Personnel Licensing) (Other Personnel) Regulations 2013.

## 11. LICENCE RATINGS

- 11.1 The CAAB issues licences with the following ratings provided the provisions of Civil Aviation (Personnel Licensing) (Other Personnel) Regulations 2013 are met:
- Airframe Rating
  - Powerplant Rating
  - Airframe and Powerplant Rating
  - Avionics Rating
- 11.2 The CAAB can also issue an inspection authorization in accordance with Reg. 20 of Civil Aviation (Personnel Licensing) (Other Personnel) Regulations 2013. The applicant shall have held an airframe and powerplant licence for at least 3 years. The inspection authorization does not permit the holder to inspect and approve for return to service any aircraft with a MTOW exceeding 5700kg.

## 12. LINE MAINTENANCE

- 12.1 Any AMO maintaining aircraft shall in the case of aircraft line maintenance, have certifying staff with appropriate aircraft rating qualified in the airframe, powerplant, and avionics categories as appropriate to the tasks to be performed, in accordance with Part III (Reg. 6) of Civil Aviation (Personnel Licensing) (Other Personnel) Regulations 2013. The certifying staff may also perform minor **scheduled** line maintenance as described in 12.2 after appropriate task training for each task.
- 12.2 For the purposes of this AAC relating to personnel, minor scheduled line maintenance means any minor scheduled inspection/check up to and including a weekly check specified in the aircraft maintenance programme.
- 12.3 Typical scheduled line maintenance tasks permitted after appropriate task training to be carried out by the personnel, for the purpose of these personnel issuing an aircraft certificate of release to service as specified in AMO Reg. 19(6) as part of minor scheduled line maintenance or simple defect rectification are contained in the following list:
- (a) Replacement of wheel assemblies.
  - (b) Replacement of wheel brake units.

- (c) Replacement of emergency equipment.
- (d) Replacement of ovens, boilers and beverage makers.
- (e) Replacement of internal and external lights, filaments and flash tubes.
- (f) Replacement of windscreen wiper blades.
- (g) Replacement of passenger and cabin crew seats, seat belts and harnesses.
- (h) Closing of cowlings and re-fitment of quick access inspection panels.
- (i) Replacement of toilet system components but excluding gate valves.
- (j) Simple repairs and replacement of internal compartment doors and placards but excluding doors forming part of a pressure structure.
- (k) Simple repairs and replacement of overhead storage compartment doors and cabin furnishing items.
- (l) Replacement of static wicks.
- (m) Replacement of aircraft main and APU aircraft batteries.
- (n) Replacement of in-flight entertainment system components other than public address.
- (o) Routine lubrication and replenishment of all system fluids and gases.
- (p) The de-activation only of sub-systems and aircraft components as permitted by the operator's minimum equipment list where such de-activation is agreed by the competent authority as a simple task.
- (q) Inspection for and removal of de-icing/anti-icing fluid residues, including removal/closure of panels, cowls or covers or the use of special tools.
- (r) Replacement of any other component as agreed by the competent authority for a particular aircraft type only where it is agreed that the task is simple.
- (s) Any other task agreed by the competent authority as a simple task for a particular aircraft type. This may include defect deferment when all the following conditions are met:
  - I. There is no need for troubleshooting; and
  - II. The task is in the MEL; and
  - III. The maintenance action required by the MEL is agreed by the competent authority to be simple.

12.4 In the particular case of helicopters, and in addition to the items above, the following:

- (t) Removal and installation of Helicopter Emergency Medical Service (HEMS) simple internal medical equipment.
- (u) Removal and installation of external cargo provisions (i.e., external hook / swing, mirrors) other than the hoist.



- (v) Removal and installation of quick release external cameras and search lights.
- (w) Removal and installation of emergency float bags, not including the bottles.
- (x) Removal and installation of external doors fitted with quick release attachments.
- (y) Removal and installation of snow pads/skid wear shoes/slump protection pads.

**NOTE: No task which requires troubleshooting should be part of the authorized maintenance actions. Release to service after rectification of deferred defects should be permitted as long as the task is listed above.**

12.5 In the case of aircraft line maintenance the requirement of having appropriate aircraft rated certifying staff qualified in the categories listed in paragraph 11.1 as appropriate, does not imply that the organisation must have these staff personnel at every line station. The MPM should have a procedure on how to deal with defects requiring these certifying staff.

### 13. BASE MAINTENANCE

- 13.1 Any organisation maintaining aircraft, should in the case of base maintenance of large aircraft, have appropriate aircraft type rated certifying staff qualified with Airframe and Powerplant ratings in accordance with Civil Aviation (Personnel Licensing) (Other Personnel) Regulations 2013. In addition the AMO should have sufficient aircraft type rated staff qualified as category Airframe, Powerplant and Avionics (support staff) as appropriate in accordance with the Regulations 2013 to support the overall certifying Airframe and Powerplant staff.
- 13.2 The Airframe, Powerplant and Avionic support staff are required to ensure that all relevant tasks or inspections have been carried out to the required standard before the Airframe and Powerplant certifying staff member issues the MRC.
- 13.3 The organisation should maintain a register of any such Airframe, Powerplant and Avionic support staff.
- 13.4 The Airframe and Powerplant certifying staff shall ensure that compliance with paragraph 12.1 above has been met and that all work required by the customer has been accomplished during the particular base maintenance check or work package, and shall also assess the impact of any work not carried out with a view to either requiring its accomplishment or agreeing with the operator to defer such work to another specified check or time limit.
- 13.5 In the case of base maintenance of aircraft other than large aircraft, the organization should have either:
  - (i) appropriate aircraft rated certifying staff qualified as category Airframe, Powerplant or Avionics as appropriate, in accordance with Civil Aviation (Personnel Licensing) (Other Personnel) Regulations 2013 or;
  - (ii) appropriate aircraft rated certifying staff qualified in Airframe and Powerplant assisted by Airframe, Powerplant, Avionics support staff as specified in point 13.5 (i).

## 13.6 Qualifications

In accordance with para 13.5 the qualification requirements (basic licence, aircraft ratings, recent experience and continuation training) are identical for certifying staff and for support staff. The only difference is that support staff cannot hold certification privileges when performing this role since during base maintenance the release to service will be issued by dual rated Airframe and Powerplant certifying staff. Nevertheless, the organization may use as support staff (for base maintenance) persons who already hold certification privileges for line maintenance.

## 14. COMPONENT CERTIFYING STAFF

Component certifying staff are required to comply with the appropriate rating defined in Civil Aviation (Personnel Licensing) (Other Personnel) Regulations 2013.

## 15. MISCELLANEOUS

By derogation to Line and Base Maintenance paragraphs 12 and 13, in relation to the obligation to comply with Civil Aviation (Personnel Licensing)(Other Personnel) Regulations 2013, the organisation may use certifying staff qualified in accordance with the following provisions:

- (a) For organisation facilities located outside the territory of Botswana certifying staff may be qualified in accordance with the national aviation regulations of the State in which the organisation facility is registered subject to the licences being issued in accordance with ICAO Annex I.
- (b) For line maintenance carried out at a line station of an organisation which is located outside the territory of Botswana, the certifying staff may be qualified in accordance with the national aviation regulations of the State in which the line station is based, subject to the licences being issued in accordance with ICAO Annex I.

## 16. REPETITIVE ADS PERFORMED BY FLIGHT CREW

For a repetitive pre-flight airworthiness directive which specifically states that the flight crew may carry out such airworthiness directive, the organisation may issue a limited certification authorization to the aircraft commander and/or the flight engineer on the basis of the flight crew licence held. However, the organisation shall ensure that sufficient practical training has been carried out to ensure that such aircraft commander or flight engineer can accomplish the airworthiness directive to the required standard.

## 17. AIRCRAFT OPERATING AWAY FROM MAIN BASE

- 17.1 In the case of aircraft operating away from a supported location the AMO may issue a limited certification authorization to the commander on the basis of the flight crew licence held subject to being satisfied that sufficient practical training has been carried out to ensure that the commander can accomplish the specified task to the required standard. The provisions of this paragraph shall be detailed in a procedure in the AMO's MPM.
- 17.2 For the issue of a limited certification authorization the commander should hold either a valid air transport pilots license (ATPL), or commercial pilots license (CPL) in accordance with Civil Aviation (Personnel Licensing) (General) Regulations 2013, on the aircraft type. In addition the limited certification authorization is subject to the AMO's MPM containing procedures to address the personnel requirements addressing competence and training. Such procedures should include as a minimum:

- (i) Completion of adequate maintenance airworthiness regulation training.
  - (ii) Completion of adequate task training for the specific task on the aircraft. The task training should be of sufficient duration to ensure that the individual has a thorough understanding of the task to be completed and will involve training in the use of associated maintenance data.
  - (iii) Completion of procedural training.
- 17.3 The above procedures should be specified in the AMO's MPM and be accepted by the competent authority.
- 17.4 Typical tasks that may be certified and/or carried out by the commander holding an ATPL or CPL are minor maintenance or simple checks included in the following list:
- (a) Replacement of internal lights, filaments and flash tubes.
  - (b) Closing of cowlings and refitment of quick access inspection panels.
  - (c) Role changes e.g. stretcher fit, dual controls, FLIR, doors, photographic equipment etc.
  - (d) Inspection for and removal of de-icing/anti-icing fluid residues, including removal/closure of panels, cowls or covers that are easily accessible but not requiring the use of special tools.
  - (e) Any check / replacement involving simple techniques consistent with this AAC and as agreed by the CAAB.
- 17.5 In addition to paragraph 17.3 (a) to (e) other typical minor maintenance or simple defect rectification tasks that may be carried out are included in the following list:
- (a) Replacement of wheel assemblies.
  - (b) Replacement of simple emergency equipment that is easily accessible.
  - (c) Replacement of ovens, boilers and beverage makers.
  - (d) Replacement of external lights.
  - (e) Replacement of passenger and cabin crew seats, seat belts and harnesses.
  - (f) Simple replacement of overhead storage compartment doors and cabin furnishing items.
  - (g) Replacement of static wicks.
  - (h) Replacement of aircraft main and APU aircraft batteries.
  - (i) Replacement of in-flight entertainment system components other than public address.
  - (j) The de-activation only of sub-systems and aircraft components as permitted by the operator's minimum equipment list where such de-activation is agreed by the competent authority as a simple task.
  - (k) Re-setting of tripped circuit breakers under the guidance of maintenance control.

- (l) Any other task agreed by the competent authority as a simple task for a particular aircraft type.

17.6 The authorization of the commander should have a finite life of twelve (12) months subject to satisfactory recurrent training on the applicable aircraft type.

#### 17.7 **Personnel requirements for Flight Crew**

17.7.1 For the holder of an ATPL or CPL issued in accordance with Civil Aviation (Personnel Licensing)(General) Regulations 2013 the theoretical knowledge and examination subjects should include the following subjects:

- (a) Air law
- (b) Airframe/systems/powerplant
- (c) Instruments/electronics
- (d) Mass and balance
- (e) Performance
- (f) Flight planning and monitoring
- (g) Human performance and limitations
- (h) Meteorology
- (i) General navigation
- (j) Radio Navigation
- (k) Operational Procedures
- (l) Principles of Flight
- (m) VFR Communications
- (n) IFR Communications

17.7.2 Familiarisation with basic maintenance procedures, to give additional technical background knowledge, especially with respect to the implication of systems malfunctions, and to train the applicant in maintenance related to MELs.

17.7.3 The theoretical knowledge instruction consists of 100 hours and includes the following elements:

1. Airframe and systems
2. Electrics
3. Powerplant and emergency equipment
4. Flight instruments and automatic flight control systems

17.7.4 Practical skills training provided by an organisation approved under the AMO Regulation is given which includes 35 hours practical experience in the following subjects

- (a) Fuselage and flight controls;
- (b) Engines;
- (c) Instruments;
- (d) Landing gear and brakes;
- (e) Cabin/cockpit/emergency equipment;
- (f) De-icing/anti-icing related maintenance activities;
- (g) Ground handling and servicing;
- (h) Certificate of completion.

17.7.5 Following successful completion of the technical training, the training organisation carrying out the theoretical knowledge instruction and/or the practical skill training, should provide the applicant with a certificate of satisfactory completion of the course, or part thereof.

## **18. ONE OFF AUTHORIZATIONS WHEN AIRCRAFT IS GROUNDED**

18.1 In the following unforeseen cases, where an aircraft is grounded at a location other than the main base where no appropriate certifying staff are available, the organisation contracted to provide maintenance support may issue a one-off certification authorization:

- (i) to one of its employees holding equivalent type authorizations on aircraft of similar technology, construction and systems; or,
- (ii) to any person with not less than five years maintenance experience and holding a valid ICAO aircraft maintenance licence rated for the aircraft type requiring certification, provided there is no CAAB AMO appropriately approved at that location and the contracted organisation obtains and holds on file evidence of the experience and the licence of that person.

All such cases as specified in this subparagraph shall be reported to the CAAB within seven days of the issuance of such certification authorization. The organisation issuing the one-off authorization shall ensure that any such maintenance that could affect flight safety is re-checked by an appropriately approved organisation.

18.2 For the purposes of paragraph 18.1 “*unforeseen*” means that the aircraft grounding could not reasonably have been predicted by the operator because the defect was unexpected due to being part of a hitherto reliable system.

18.3 A one-off authorization should only be considered for issue by the quality department of the contracted organisation after it has made a reasoned judgement that such a requirement is appropriate under the circumstances and at the same time maintaining the required airworthiness standards. The organisation’s quality department will need to assess each situation individually prior to the issuance of a one-off authorization.

18.4 A one-off authorization should not be issued where the level of certification required could exceed the knowledge and experience level of the person it is issued to. In all cases, due consideration should be given to the complexity of the work involved and the availability of required tooling and/or test equipment needed to complete the work.

18.5 In those situations where the requirement for a one-off authorization to issue a CRS for a task on an aircraft type for which certifying staff does not hold a type-rated authorization has been identified, the following procedure is recommended:

18.5.1 Flight crew should communicate full details of the defect to the operator's supporting maintenance organisation. If necessary the supporting maintenance organisation will then request the use of a one-off authorization from the quality department.

18.5.2 When issuing a one off authorization, the quality department of the organisation should verify that:

- (a) Full technical details relating to the work required to be carried out have been established and passed on to the certifying staff.
- (b) The organisation has an approved procedure in place for co-ordinating and controlling the total maintenance activity undertaken at the location under the authority of the one off authorization.
- (c) The person to whom a one-off authorization is issued has been provided with all the necessary information and guidance relating to maintenance data and any special technical instructions associated with the specific task undertaken. A detailed step by step worksheet has been defined by the organisation, communicated to the one-off authorization holder.
- (d) The person holds authorizations of equivalent level and scope on other aircraft type of similar technology, construction and systems.

18.5.3 The one-off authorization holder should sign off the detailed step by step worksheet when completing the work steps. The completed tasks should be verified by visual examination and/or normal system operation upon return to an appropriately approved CAAB Approved AMO facility.

## 19. AMO CERTIFYING STAFF AND SUPPORT STAFF

19.1 In addition to the appropriate paragraphs of sections 12 and 13 for line and base maintenance, the AMO shall ensure that certifying staff and support staff have an adequate understanding of the relevant aircraft and/or components to be maintained together with the associated organization procedures. In the case of certifying staff, this shall be accomplished before the issue or re-issue of the certification authorization.

Note 1: "*Support staff*" means those staff holding an aircraft maintenance licence issued in accordance with Civil Aviation (Personnel Licensing)(Other Personnel) Regulation 2013 in the airframe, powerplant or avionic categories with the appropriate aircraft ratings, working in a base maintenance environment while not necessarily holding certification privileges.

Note 2: "*Relevant aircraft and/or components*", means those aircraft or components specified in the particular certification authorization.

Note 3: "Certification authorization" means the authorization issued to certifying staff by the AMO and which specifies the fact that they may sign certificates of release to service within the limitations stated in such authorization on behalf of the approved organization.

- 19.2 Holding a CAAB licence with the relevant type/group rating, does not mean by itself that the holder is qualified to be authorised as certifying staff and/or support staff. The organisation is responsible to assess the competence of the holder for the scope of maintenance to be authorised.
- 19.3 The sentence *“the organisation shall ensure that certifying staff and support staff have an adequate understanding of the relevant aircraft and/or components to be maintained together with the associated organisation procedures”* means that the person has received training and has been successfully assessed on:
- (a) the type of aircraft or component;
  - (b) the differences on:
    - the particular model/variant;
    - the particular configuration.
- 19.4 The organisation should specifically ensure that the individual competencies have been established with regard to:
- (a) Relevant knowledge, skills and experience in the product type and configuration to be maintained, taking into account the differences between the generic aircraft type rating training that the person received and the specific configuration of the aircraft to be maintained.
  - (b) Appropriate attitude towards safety and observance of procedures.
  - (c) Knowledge of the associated organisation and operator procedures (i.e. handling and identification of components, MEL use, Technical Log use, independent checks, etc.).
- 19.5 Some special maintenance tasks may require additional specific training and experience, including but not limited to:
- (a) in-depth troubleshooting;
  - (b) very specific adjustment or test procedures;
  - (c) rigging;
  - (d) engine run-up, starting and operating the engines, checking engine performance characteristics, normal and emergency engine operation, associated safety precautions and procedures;
  - (e) extensive structural/system inspection and repair;
  - (f) other specialised maintenance required by the maintenance programme.
- Note: For engine run-up training, simulators and/or real aircraft should be used.**
- 19.6 The satisfactory assessment of the competence should be conducted in accordance with a procedure approved by the competent authority (within the AMO's MPM)
- 19.7 The AMO should hold copies of all documents that attest to the competence and recent experience for the period described in paragraph 22.
- 19.8 Excepting those cases listed in paragraphs 15, 16, 17 and 18 the organisation may only issue a certification authorization to certifying staff in relation to the basic

categories or subcategories and any type rating listed on the aircraft maintenance licence as required by , Civil Aviation (Personnel Licensing) (Other Personnel) Regulations 2013 subject to the licence remaining valid throughout the validity period of the authorization and the certifying staff remaining in compliance with Civil Aviation (Personnel Licensing) (Other Personnel) Regulations 2013.

- 19.9 The organisation issues the certification authorization when satisfied that compliance has been established with the appropriate paragraphs of Civil Aviation (Approved Maintenance Organisations) Regulations, 2012 and Civil Aviation (Personnel Licensing) (Other Personnel) Regulations, 2013. In granting the certification authorization the AMO approved under the AMO Regulation needs to be satisfied that the person holds a valid CAAB aircraft maintenance licence and may need to confirm such fact with the CAAB that issued the licence.
- 19.10 The AMO shall ensure that all certifying staff and support staff are involved in at least 6 months of actual relevant aircraft or component maintenance experience in any consecutive 2 year period.
- 19.11 For the purpose of this paragraph “involved in actual relevant aircraft or component maintenance” means that the person has worked in an aircraft or component maintenance environment and has either exercised the privileges of the certification authorization and/or has actually carried out maintenance on at least some of the aircraft type or aircraft group systems specified in the particular certification authorization.

## **20. CONTINUATION TRAINING**

- 20.1 The organisation shall ensure that all certifying staff and support staff receives sufficient continuation training in each two year period to ensure that such staff have up-to-date knowledge of relevant technology, organisation procedures and human factor issues.
- 20.2 Continuation training is a two way process to ensure that certifying staff remain current in terms of procedures, human factors and technical knowledge and that the organisation receives feedback on the adequacy of its procedures and maintenance instructions. Due to the interactive nature of this training, consideration should be given to the possibility that such training has the involvement of the quality department to ensure that feedback is actioned. Alternatively, there should be a procedure to ensure that feedback is formally passed from the training department to the quality department to initiate action.
- 20.3 Continuation training should cover changes in relevant requirements such as AMO Regulations, and Airworthiness Regulations, recent ADs, changes in organisation procedures and the modification standard of the products being maintained plus human factor issues identified from any internal or external analysis of incidents. It should also address instances where staff failed to follow procedures and the reasons why particular procedures are not always followed. In many cases the continuation training will reinforce the need to follow procedures and ensure that incomplete or incorrect procedures are identified to the company in order that they can be corrected. This does not preclude the possible need to carry out a quality audit of such procedures.
- 20.4 Continuation training should be of sufficient duration in each two (2) year period to meet the intent of AMO Regulation 98 and may be split into a number of separate elements. AMO Regulation 19(8) requires such training to keep certifying staff updated in terms of relevant technology, procedures and human factors issues which means it is one part of ensuring quality. Therefore sufficient duration should be related to relevant quality audit findings and other internal / external sources of information available to the organisation on human errors in maintenance. This



means that in the case of an organisation that maintains aircraft with few relevant quality audit findings, continuation training could be limited to days rather than weeks, whereas a similar organisation with a number of relevant quality audit findings, such training may take several weeks.

- 20.5 For an AMO that maintains aircraft components, the duration of continuation training would follow the same philosophy but should be scaled down to reflect the more limited nature of the activity. For example certifying staff who release hydraulic pumps may only require a few hours of continuation training whereas those who release turbine engine may only require a few days of such training. The content of continuation training should be related to relevant quality audit findings and it is recommended that such training is reviewed at least once in every 24 month period.
- 20.6 The method of training is intended to be a flexible process and could, for example, include an Approved Training Organisation (ATO) continuation training course, aeronautical college courses, internal short duration courses, seminars, etc. The elements, general content and length of such training should be specified in the AMOs MPM unless such training is undertaken by an organisation approved under the approved training organisation regulation when such details may be specified under the approval and cross referenced in the AMOs MPM.
- 20.7 The organisation shall establish a programme for continuation training for certifying staff and support staff, including a procedure to ensure compliance with the relevant paragraphs of AMO Regulation 19 as the basis for issuing certification authorizations under this Regulation to certifying staff, and a procedure to ensure compliance with Civil Aviation (Personnel Licensing) (Other Personnel) Regulations 2013.
- 20.8 The programme for continuation training should list all certifying staff and support staff and when training will take place, the elements of such training and an indication that it was carried out reasonably on time as planned. Such information should subsequently be transferred to the certifying staff and support staff record as referenced in paragraph 22.

## **21. AMO ASSESSMENT OF CERTIFYING STAFF AND CERTIFICATION AUTHORIZATIONS**

- 21.1 Except where any of the unforeseen cases of paragraph 18 applies, the AMO shall assess all prospective certifying staff for their competence, qualification and capability to carry out their intended certifying duties in accordance with a procedure as specified in the MPM prior to the issue or re-issue of a certification authorization.
- 21.2 When the conditions of paragraphs 19.1, 19.7, 20, 21.1 and, where applicable, paragraph 19.9 have been fulfilled by the certifying staff, the organisation shall issue a certification authorization that clearly specifies the scope and limits of such authorization. Continued validity of the certification authorization is dependent upon continued compliance with paragraphs 19.1, 19.7, 20, and where applicable, paragraph 19.9.
- 21.3 The certification authorization should be in a style that makes its scope clear to the certifying staff and any authorised person who may require to examine the authorization. Where codes are used to define scope, the AMO shall make a code translation readily available. 'Authorised person' means the officials of the CAAB who have responsibility for the oversight of the maintained aircraft or component.
- 21.4 The person responsible for the quality system shall also remain responsible on behalf of the organisation for issuing certification authorizations to certifying staff. Such person may nominate other persons to actually issue or revoke the certification authorizations in accordance with a procedure as specified in the MPM.

## **22. AUTHORIZATION RECORDS**

- 22.1 The AMO should maintain a record of all certifying staff and support staff, which shall contain:
- (a) the details of any aircraft maintenance licence held under the Civil Aviation Regulations;
  - (b) all relevant training completed;
  - (c) the scope of the certification authorizations issued, where relevant; and,
  - (d) Particulars of staff with limited or one-off certification authorizations.
- 22.2 The AMO shall retain the record for at least three (3) years after the staff referred to in this paragraph have ceased employment with the AMO or as soon as the authorization has been withdrawn. In addition, upon request, the maintenance organization shall furnish the staff referred to in this paragraph with a copy of their personal record on leaving the AMO. The staff referred to in this paragraph shall be given access on request to their personal records as detailed above.
- 22.3 The following minimum information as applicable should be kept on record in respect of each staff and support staff:
- (a) Name
  - (b) Date of Birth
  - (c) Basic Training
  - (d) Type Training
  - (e) Continuation Training
  - (f) Experience
  - (g) Qualifications relevant to the authorization
  - (h) Scope of the authorization
  - (i) Date of first issue of the authorization
  - (j) If appropriate – expiry date of the authorization
  - (k) Identification Number of the authorization
- 22.4 The record may be kept in any format but should be controlled by the AMO's quality department. This does not mean that the quality department should run the record system.
- 22.5 Persons authorised to access the system should be maintained at a minimum to ensure that records cannot be altered in an unauthorised manner or that such confidential records become accessible to unauthorised persons.
- 22.6 The competent authority is an authorised person when investigating the records system for initial and continued approval or when the competent authority has cause to doubt the competence of a particular person.
- 22.7 The AMO shall provide certifying staff with a copy of their certification authorization in either a documented or electronic format.
- 22.8 Certifying staff shall produce their certification authorization to any authorised person within 24 hours.

## **23. ASSESSMENT FORM**

A Form that could be used by AMOs and CAAB inspectors to assess certifying staff and support staff during audits is given in Appendix A.

*[Handwritten signature]*

For/Civil Aviation Authority of Botswana



Date: 07/02/2014

*End of Circular*

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## Appendix A

Licensed Personnel Assessment Form		
Organisation :		
Name:	Staff Number :	Position in Org
CAAB Licence Number:	Staff Authorization	
Type of Licence : Airframe/Powerplant / Avionics		
Has licence been issued or validated by CAAB ?	Yes/No	Comment:
Is Licence Valid ?	Yes/No	Comment:
Does Authorization reflect scope of licence	Yes/No	Comment:
Are CRS sampled within scope of authorization and licence	Yes/No	Comment:  List CRS's sampled.
Inspector/ QM :	Signature	Date: