



Civil Aviation Authority of Botswana

**AIRWORTHINESS**

**ADVISORY**

**CIRCULAR**

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CAAB Document AAC-007

**CERTIFICATE  
OF  
AIRWORTHINESS  
ISSUE**

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## TABLE OF CONTENTS

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	<b>Page number</b>
1. Purpose	5
2. Status of this advisory circular	5
3. Effective Date	5
4. Applicability	5
5. Related Regulations	5
6. Background	5
7. Pre-requisite to Qualify for C of A Issue	6
8. Botswana Airworthiness Code	6
9. Aircraft Type Certificates Compliance Requirements	6
10. Certificate of Airworthiness Issuance	7
11. Renewal of Certificate of Airworthiness	11
11.1 Guidance and procedures for renewal of C of A	11
11.2 C of A Renewal Pre-requisite	11
11.3 C of A Renewal Application and Documents Evaluation	11
11.4 C of A Renewal Aircraft Inspection	12
11.5 C of A Renewal or Validation Test Flight Requirements	12
11.6 Renewal of the C of A	12
11.7 Period of Validity of a Certificate of Airworthiness	13

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## 1. PURPOSE

This Advisory Circular (AC) is issued as an acceptable means of compliance providing information and guidance to operators on the:

- 1.1 Issuance of a Certificate of Airworthiness in accordance with the requirements of the Civil Aviation Regulations.
- 1.2 Renewal/continued validity of a Certificate of Airworthiness in accordance with the requirements of the Civil Aviation Regulation.
- 1.3 Whilst covering all aircraft types irrespective of weight, the processes detailed in this AC should not be considered as being definitive. Not all the requirements quoted will apply to every aircraft type. Reference to BCARs and other CAAB requirements must be made by the applicant prior to contract/purchase of the aircraft.

## 2. STATUS OF THIS ADVISORY CIRCULAR

This Airworthiness Advisory Circular is an original issuance.

## 3. EFFECTIVE DATE

This AAC becomes effective immediately

## 4. APPLICABILITY

This AAC is applicable to all individuals, operators, organizations and other entities applying for the issuance of a certificate of airworthiness and the operation of Botswana registered aircraft under such a certificate.

## 5. RELATED REGULATIONS

The following regulations are directly applicable to the guidance contained in this advisory circular—

Regulation 6, 7 and 12 of Civil Aviation (Airworthiness) Regulations

## 6. BACKGROUND

- 6.1 ICAO Standards in Annex 8, Airworthiness of Aircraft, require that Botswana must have a process for issuance of Certificates of Airworthiness to aircraft registered in the Botswana.
- 6.2 In support of its international safety oversight obligations, Botswana has safety legislation and guidance regarding the requirements that apply to the airworthiness of aircraft, including—
  - 1) Botswana Civil Aviation (Airworthiness) Regulation 7; and
  - 2) This advisory circular
- 6.3 Civil Aviation Authority of Botswana (CAAB) through Flight Safety Directorate has the responsibility and authority to ensure—
  - 1) Evaluation of aircraft in accordance with the applicable airworthiness standards;
  - 2) Issuance the proper certificates of airworthiness; and
  - 3) On-going surveillance of these aircraft to ensure conformance with the applicable airworthiness standards

*Advisory Circulars (ACs) are intended to provide advice and guidance to illustrate an acceptable 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).*

- 6.4 The certificates of airworthiness issued under Civil Aviation (Airworthiness) Regulations are classified as:
- a) Certificate of Airworthiness (C of A);
  - b) Permit to Fly
  - c) Special Flight Permit; and
  - d) Export Certificate of Airworthiness

## **7 Pre-Requisite to Qualify for C of A Issue**

- 7.1 Aircraft must be registered on the Botswana civil aircraft register.
- 7.2 Applicant/Customer/Maintenance Organisation details must be provided
- 7.3 Aircraft must be of a type certificate acceptable to the Authority
- 7.4 Fireproof plate must be secured to the aircraft

## **8 Botswana Airworthiness Code**

- 8.1 Botswana accepts aircraft and/or aeronautical parts certificated under the following codes of airworthiness:
- (1) Botswana Civil Aviation Regulations
  - (2) FAR
  - (3) EASA/JAR
  - (4) SACAR
  - (5) Airworthiness codes from other Contracting States may be evaluated on case-by-case basis.
- 8.2 Documents relating to the code of airworthiness (i.e. Type Certificate Data Sheet, Technical Manual, etc.) must be written in the English Language.

## **9 Aircraft Type Certificate Compliance Requirements**

### **Aircraft first of type on the Botswana register, certification process:**

- a) The Authority may accept an aircraft type certificate or equivalent document issued by a contracting state of design in respect of an aircraft or component provided that:
  - 1) The type certificate or equivalent document was issued on or based on an airworthiness code recognized by the authority.
  - 2) The design, materials, construction, equipment, evaluation against a recognized airworthiness code has been carried out by the authority and has been found to:
    - 3) meet the required standards of the recognized airworthiness code; or
    - 4) have complied with any recommendations required by the Authority.
  - 5) Installed modifications are approved to an airworthiness code acceptable to the State of Botswana and documentation to support such approval is satisfied. \*
  - 6) There are no restrictive operational limitations applicable to the aircraft, which may prevent the C of A issue. \*
  - 7) Assessment of suitability of any special conditions specified. \*
  - 8) Assessment of acceptability of any waivers or variations.\*
- b) The 'recognized airworthiness code' – Means standards relating to the design, materials, construction, equipment, performance and maintenance planning of aircraft or aircraft components issued by the state of design that are acceptable to the Authority.

- c) **An applicant** for the grant of a Type Acceptance Certificate for an aircraft type shall apply to the Authority using form: [CAAB Form AIR 111](#), with payment of any appropriate application fee
- d) To enable effective aircraft safety oversight the Authority requires:
  - (i) Aircraft technical documents and literature (e.g. flight manual, maintenance manuals etc) published in English;
  - (ii) Timely provision to the Authority and the operator the current amendments of all relevant aircraft technical and operation literature;
  - (iii) The aircraft equipment, instruments indication markings and placards to be in English and Arabic numerals; and
  - (iv) The aircraft type design to incorporate the minimum recommended emergency features (e.g. emergency windows), and emergency equipment with clear operating instructions in English.
- e) An aircraft that does not satisfy the Type Certificate requirements is classified non-compliant and therefore cannot be issued with a Botswana Certificate of Airworthiness.

## 10 CERTIFICATE OF AIRWORTHINESS ISSUANCE

- a. The owner of an aircraft registered in Botswana or representative of the owner may apply to the Authority for issue of a certificate of airworthiness for that aircraft, the application for a certificate of airworthiness shall be made on Form: [CAAB Form AIR113](#) submit along with Proof of payment of the C of A issue prescribed fee.
- b. An aircraft of a Type certification basis already approved and entered on the register of the State of Botswana need not comply with Paragraph 9 a) 5 to 8 above, marked thus \*
- c. In addition to the application form, the applicant is required to submit to the Authority two (2) sets of the following documents for the pre-issue evaluation in case the type being imported in to the **country for the first time**:
  - (i) Maintenance Planning document;
  - (ii) Master Minimum Equipment List (MMEL)
  - (iii) Flight Manual/Pilot Operating Handbook;
  - (iv) Valid Export C of A from the State of Export;

NOTE  
Where an export C of A is required, it should not be more than 60 days from the date of issue when received by CAAB. Some regulatory Authorities do not issue an export C of A; in such cases the CAAB may accept as an alternative:

  - a) A valid domestic Certificate of Airworthiness issued within the last 60 days; or
  - b) A valid Certificate of Airworthiness together with a written statement signed by the regulatory Authority of the exporting State within the last 60 days confirming that the aircraft is in accordance with the TDCS and is in an airworthy condition; or
  - c) An EASA form 52 (for new aircraft); or
  - d) An EASA Certificate of Airworthiness issued by another EASA member State and a valid Airworthiness Review Certificate (ARC); or

- e) Derogations or waivers to requirements issued by the exporting countries must be agreed with the CAAB in advance.
- (v) The proposed aircraft maintenance programme to cover the Airframe, Engine, APU, Propellers, as applicable. The programme must include tasks for operational approvals requirements.
- (vi) Maintenance Manual of Aircraft, Engine, etc.;
- (vii) Overhaul Manual including that of Engine
- (viii) Structural Repair Manual;
- (ix) Wiring Manual
- (x) Wiring diagram covering all electrical and radio installations
- (xi) Operations manual;
- (xii) Weight and Balance Manual;
- (xiii) Component Overhaul/Maintenance Manual;
- (xiv) NDT Manual;
- (xv) Parts catalogue (IPC).

### 10.3 Other documents that maybe required:

- a) The following document must be submitted to the Authority for evaluation unless not required.
  - (i) Aircraft Status Summary  
*This should show operational times (cycles/hours) of aircraft, engines, propellers and APU, together with time remaining to the next check or overhaul.*
  - (ii) A copy of Type Certificate and or Type Certificate Data Sheet (TCDS)  
*The aircraft should be assessed to establish that it is in compliance with the appropriate type certification requirements, typically as specified in the applicable Type Certificate Data Sheet. This will include the technical characteristics and certification basis.*
  - (iii) The aircraft Airworthiness Directives status report.  
*The aircraft records should be reviewed to establish compliance and certification of all applicable Airworthiness Directives. An Airworthiness Directives compliance statement should be prepared for the aircraft, engines (including APU if fitted), propellers and equipment. Compliance should be shown with all applicable AD issued by the State of Design for the airframe, engines, propellers and equipment as applicable.*
  - (iv) An aircraft maintenance programme bridging check as necessary  
*Where a used aircraft is being placed on a maintenance schedule or programme, an alignment (bridging) maintenance check may be required. The content of the alignment check, including consideration of previous maintenance standards, previous maintenance programme and any escalations, must be agreed with the CAAB. All known defects must have been corrected or, when applicable carried forward in a controlled manner.*
  - (v) Manufactures service bulletins and subsequent new issue/revisions;
  - (vi) Noise Certificate  
*In the case of aircraft issued with noise certificates from the previous State of registry or State of manufacturer, a copy of such certificate has to be submitted to CAAB for acceptance.*
  - (vii) Record of the aircraft equipment and systems installations.



- (viii) Log-Books for the aircraft, engines, apu, propellers and the technical-log as are applicable for the relevant aircraft
- (ix) Airworthiness Life Limitations components status report.  
*The aircraft and records should be reviewed to ensure the exporting State requirements, CAAB, State of design, and the Type Certificate Holders recommended life limits have been incorporated into the maintenance programme/schedule. Evidence that the existing life limits have not been exceeded must be established. This also includes the engines, propellers and appliances.*
- (x) Aircraft previous twelve (12) months maintenance review report.
- (xi) Current Weight and Balance schedule report.  
*The following items must be valid:*
  - a) *Weighing record (record of the weighing and the calculations involved)*
  - b) *Weight and Centre of Gravity Schedule (enables the totally loaded weight and the C of G to be calculated).*
  - c) *Weight and Balance report/manual required for aircraft above 5700 kg. (Record of loading data essential to enable the particular aircraft to be correctly loaded.)*
- (xii) Copy of Latest major scheduled maintenance certificate release to service, and inspection summary.  
*All maintenance must have been carried out and certified in the applicable aircraft records and a Certificate of Release to service issued. This may include scheduled inspections, Corrosion Prevention and Control Programme, Supplementary Structural Inspection Document tasks and Critical Design Configuration Control Limitations (CDCCL).*
- (xiii) Copy of the current certificate of release to service if different from (i) above.
- (xiv) Copy of the current aircraft Radio Station licence.
- (xv) Copy of the current stand-by compass swing report.
- (xvi) A test flight report (as may be required).
- (xvii) Material Flammability Certificate
- (xviii) Certification basis for special operations (ETOPS, RVSM, etc) if the aircraft is certified for such operations
- (xix) Buckle and Dent Report
- (xx) Aircraft Electrical Load Analysis Report
- (xxi) Major Repair History
- (xxii) Incident and Accident Statement (i.e. signed declaration of previous incidents/accidents involving aircraft, engines, propellers and APU)

**Note:** The major components (e.g. engines, propellers, APU's, landing gears) status report should indicate the time to the next shop visit or overhaul, hours and cycles since new, the time between overhaul, as applicable.

- a) The Authority shall carry out an in depth document evaluation to verify that they are authentic, relate to the aircraft, and are valid as applicable.

#### **10.4 C of A Flight Test Requirements**

- a) The flight tests must be carried out by a qualified pilots and crew approved for the purpose.
- b) This must be covered by certificate of fitness for flight issued by properly rated Engineer.
- c) Except where the Authority requires additional crew to be carried for a particular flight test, the number of persons conducting the test should be confined to the crew specified in the Flight manual.
- d) Performance of the airworthiness Check flight must where applicable include a radio test to the correct schedule. Upon completion of the flight test and if satisfied, the pilot must sign the check flight schedule.

#### **10.5 Aircraft Inspection for C of A issue**

- a) After successful documents evaluation it is required that the operator facilitate by making arrangements for the Authority inspectors to carry out the aircraft inspection for C of A issuance.
- b) The aircraft should be located and available, at a time and place acceptable to the Authority, for such checks and inspections required by the Authority;
- c) Such checks and inspections will include physical components installation verification, emergency equipment (location, validity, ease of access and legibility of operating instructions), compliance with the Markings and Placards requirements and the general aircraft condition.
- d) It will also be required to present for inspection the aircraft Flight Manual, Minimum Equipment List, the aircraft technical records and the Log-Books as applicable.
- e) It is required to present at this inspection all the aircraft current and past technical records to verify its operational and maintenance life history.
- f) The intention of the inspection is to establish the condition and conformity of the particular aircraft and will sample various structures/ systems and installations together with the associated technical records. When deciding what aspects (areas/zones/systems) to survey on a second-hand/ imported aircraft, the previous operating history will be a prime consideration.

**Note:** It is required to rectify all outstanding defects, comply with all due mandatory inspections, modifications and replacement requirements at the C of A issue.

#### **10.6 Certificate of Airworthiness Task outcome**

When the Authority is satisfied that all the applicable regulatory requirements have been complied with and the required issue fee has been paid, the Certificate of Airworthiness will be issued.

**Note:** The Authority can amend or vary, suspend, revoke or terminate the C of A

## **10.7 Other General Requirements at the issue of a C of A**

- a) **Revision of Manuals** – The applicant is required to make the necessary arrangements with aircraft and engine manufacturers to send amendments and revisions that may be issued from time to time to the Authority to update the manuals and service information submitted.
- b) **Training Requirements** – For a new aircraft type on the Botswana Aircraft Civil Register, the operator shall be required to provide training to Authority's inspectors on the type
  - (i) The number of inspectors to be trained will depend on the size and complexity of the aircraft. This will include inspectors from Airworthiness (mechanical and avionics) and Flight Operations.
  - (ii) For a series type of an aircraft, a refresher or difference course may be required to keep abreast to the technological advancement or differences.

## **11 RENEWAL OF CERTIFICATE OF AIRWORTHINESS**

### **11.1 Guidance and procedures for the renewal of C of A**

- a. An application for renewal of a Certificate of Airworthiness should be completed on Form: [CAAB Form AIR 113](#) and be submitted to the Authority at least 30 days prior to the expiry of the certificate.
- b. The application for renewal should be made by the registered owner, representative or an agent who has an Authorization letter from the registered owner.
- c. It is required that the renewal application form is submitted with proof of payment of the prescribed C of A renewal fee.

### **11.2 C of A Renewal Pre-requisite**

The aircraft continued airworthiness depends upon:

- a) the aircraft being maintained in accordance and in compliance with the aircraft maintenance program approved by the Authority;
- b) the aircraft being in compliance with all applicable State of manufacture mandatory modifications, inspections and Airworthiness Directives; and
- c) The aircraft being operated within the performance and operating limitations of its approved Aircraft Flight Manual, and in compliance with The Civil Aviation Regulations.

### **11.3 C of A Renewal Application and Documents Evaluation**

- a) In addition to the C of A renewal application form, the applicant is required to submit the following documents for evaluation:
  - (i) The aircraft Airworthiness Directives (AD) status report.
  - (ii) A statement of compliance with the authority requirements and manufactures service bulletins.
  - (iii) Aircraft previous twelve (12) months maintenance review report.
  - (iv) Lified components status report.
  - (v) Current Mass and Balance schedule report.
  - (vi) Copy of latest major scheduled maintenance certificate release to service.

- (vii) Copy of the current certificate of release to service (if different from (f) above.
  - (viii) Record of the aircraft equipment and systems installations.
  - (ix) Copy of the current aircraft Radio Station licence.
  - (x) Copy of the current stand-by compass swing report.
  - (xi) A C of A renewal test flight report (as may be required).
  - (xii) Aircraft Status Report
  - (xiii) Any other documents as the Authority may require.
- b) The Authority will carry out an in depth document evaluation to verify that they are authentic, relevant, genuine and valid.

**Note:** *The major components (e.g. engines, propellers, APU's, landing gears) status report should indicate the time to the next shop visit or overhaul, hours and cycles since new, the time between overhaul, as applicable.*

#### **11.4 C of A Renewal Aircraft Inspection**

- a) After a satisfactory document evaluation, the applicant shall be advised to facilitate the Authority inspectors to access the aircraft at a time and place acceptable to the Authority, for such checks and inspections required by the Authority;
- b) Such checks and inspections shall include physical components installation verification, emergency equipment (location, validity, ease of access and legibility of operating instructions), compliance with the Markings and Placards requirements and the general aircraft condition.
- c) It shall also be required to present for inspection the aircraft Flight Manual, Minimum Equipment List, the aircraft technical records and the Log-Books as applicable and any other such documents as may be required for a particular type of operation.

*Note: It is required to rectify all outstanding defects, comply with all due mandatory inspection, modification and replacement requirements at the C of A renewal.*

#### **11.5 C of A Renewal or Validation Flight Test Requirements**

- a) The development of approved aircraft maintenance programs requires the identification of all maintenance activities (i.e. replacements, adjustments, function and performance checks) where the manufacturer and or the Authority will require a test flight to verify that the aircraft's flight characteristics and functioning in flight has not significantly deteriorated from the normal design performance for the type.
- b) In the absence of the provisions of 11.5 (a) above, the Authority shall require a flight test to be carried out to determine conformity with the airworthiness requirements at the C of A renewal application.
- c) Except where the Authority requires additional crew to be carried for a particular flight test, the number of persons conducting the test should be confined to the crew specified in the Flight manual which forms part of the Certificate of Airworthiness

#### **11.6 Renewal of the C of A**

When the Authority is satisfied that all the applicable regulatory requirements have been complied with, the Certificate of Airworthiness will be renewed.

## 11.7 Period of Validity of a Certificate of Airworthiness

11.1.1 A certificate of airworthiness validity is normally twelve months. However, a shorter period may be specified by the Authority.

11.1.2 A certificate of airworthiness shall cease to be in force at the expiry date as indicated there on and/or when:

- (i) The aircraft or such of its equipment as is necessary for the airworthiness of the aircraft is maintained, overhauled, repaired or modified or if any part of the aircraft or such equipment is removed or if any part of the aircraft is replaced, otherwise than in a manner and with material of a type approved by the Authority.
- (ii) The aircraft or any of its equipment is not maintained as required by the maintenance programme approved by the Authority.
- (iii) An inspection or modification classified as mandatory by Authority, state of design/manufacture applicable to the aircraft or of any such equipment has not, been completed as required.
- (iv) The aircraft or any such equipment as required for safe operation has sustained damage.

  
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For/Civil Aviation Authority of Botswana



*End of Advisory Circular*