KINGDOM OF BAHRAIN
Ministry of Transportation
and Telecommunications

مملكة البحرين
وزارة المواصلات والاتصالات

CIVIL AVIATION PUBLICATION

CAP 16

REGISTRATION OF AIRCRAFT AND CERTIFICATE OF AIRWORTHINESS

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Bahrain CAA Publication Revisions Highlight Sheet

☒ CAP: 16 ☐ TPM: ____

The following pages have been amended to Revision 11 dated 17 September 2024.

Item	Paragraph / Chapter Number	Page(s)	Reason
1	Index	ii	Amended to title on Appendix IIA.2
2	Revision Highlights	iv	To indicate the current revisions applied
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4	Revision Record	vi	To indicate the record of revisions
SECTION-I: Certificate of Registration			
1	3.2	2-3	To include airworthiness codes to cover all possible aircraft & products and clarification to the acceptance policy on Type Certificate / Airworthiness Code
2	5.22.2	8	Include the registration task
3	5.23.1	8	Include C of R issuance task
4	9.6	10	Clarification to the acceptance policy on Type Certificate / Airworthiness Code
5	12	11	Editorial correction
6	18.1.3	14	Add form reference instead of appendix
SECTION-II A: Aircraft Certificate of Airworthiness			
1	3	1-2	To include airworthiness codes to cover all possible aircraft & products and clarification to the acceptance policy on Type Certificate / Airworthiness Code
2	5(c)	3	Clarification to the acceptance policy on Type Certificate / Airworthiness Code
3	5(h)(2)(8)	6-7	Amended to eliminate the non-practiced / non-mandatory review (certificate of maintenance) requirement

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LIST OF EFFECTIVE PAGES

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END

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REVISION RECORD

CAP 16

REGISTRATION OF AIRCRAFT AND CERTIFICATE OF AIRWORTHINESS

Revision No.	Date of Issue
1, 2, 3, 4 & 5	Used to be under BCAA Publication number P01/05
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SECTION – I

1. INTRODUCTION

Article 10 & 48 of the Civil Aviation Law No.14 of 2013 requires that no aircraft shall operate in the territory of the State without a valid certificate of registration issued or rendered valid by the appropriate Affairs of the State of Registry or any other State to which the powers and functions of the State of Registry have been transferred, in conformity with the established laws, rules and regulations and provided such aircraft fulfills the requirements and restrictions of the certificate of registration and the Aeronautical Information Publication (AIP) if any issued in this regard.

This Civil Aviation Publication (CAP) provides information and the BCAA policy regarding the acceptable method of applying for the registration of an aircraft in the Kingdom of Bahrain. This CAP does not describe the requirements for AOC/Authorisation nor the maintenance requirements.

Apart from the eligibility status at paragraph 3 below, applicants should note that an aircraft shall not be considered for registration in the Kingdom of Bahrain unless;

(a) Existing AOC holders (or authorisation holder for private aircraft);

(1) The requirements for an addition of the aircraft to the AOC/Authorisation are met in accordance with CAP 01 - AOC; and

(2) The aircraft meets the registration requirements of this CAP.

(b) Applicants for AOC/Authorisation;

(1) The applicant for an AOC/Authorisation has reached a stage in the final AOC/Authorisation process that the CAA considers acceptable; and

(2) The aircraft meets the registration requirements of this CAP.

Note: The issuance of a Certificate of Registration does not permit an aircraft to fly.

2. REFERENCES

(a) Civil Aviation Law

(b) Air Navigation Technical Regulations (ANTR)

(1) ANTR Part V – General

(2) ANTR M

(3) Applicable ANTRs in respect to AOC/Authorisation requirements

(c) CAP 01 - Air Operator's Certificate

(d) Applicable CAPs in respect to AOC/Authorisation application.

3. ELIGIBILITY

3.1 ELIGIBILITY FOR INDIVIDUAL / ORGANISATION / ENTITY

The status of a person/company in whose name the aircraft is to be registered shall be at least in one of the following categories:

(a) Citizen of the Kingdom of Bahrain.

(b) Bodies incorporated in the Kingdom of Bahrain.

(c) Non-Bahraini citizens who have business interests in the Kingdom of Bahrain.

(d) Off-shore companies based outside the Kingdom of Bahrain who undertake business in the Kingdom of Bahrain.

In the cases (c) and (d), a prior approval of the Minister is necessary before registration can be made.

If an aircraft is chartered to a person qualified as aforesaid, the BCAA may, whether or not an unqualified person is entitled as owner to a legal or beneficial interest therein, register the aircraft with the Kingdom of Bahrain in the name of the charterer upon being satisfied that the aircraft may otherwise be properly so registered, and subject to the provisions of ANTR Part V, the aircraft may remain so registered during the continuation of the charter.

3.2 AIRCRAFT ELIGIBILITY

a. Certificate of Registration and subsequent Certificates of Airworthiness shall be issued to aircraft which conform to a type design / Certification specification that are in accordance with EASA Part 21, FAA Part 21, UK CAA & Transport Canada's Part equivalent to FAA or EASA or any other regulation acceptable to the BCAA and meets the Type Certificate / Airworthiness Standards / Airworthiness Codes / Certification Specifications (CSs) of 23 / 25 / 27 / 29 / 31 / 33 / 34 / 35 / 36 of the respective State of Design such as FAA, EASA and its equivalent with Transport Canada, or any other regulation / Airworthiness Code acceptable to the BCAA as complementary regulations under ANTR Part V.

b. The acceptance of Type Certificate / Airworthiness Codes different from that of the State of Design, under the discretion of BCAA, may be considered only upon examination of service changes if any applied, jurisdiction of regulation under which the aircraft was being operated, its history of operation, maintenance, modifications and application of any STCs. It is the responsibility of the owner / operator / CAMO to address such issues, if any, prior to submission of the application with all necessary supporting documents as necessary.

The results of examination may warrant

- gap analysis in operating procedures / limitations, maintenance requirements, and bridging requirements in the case of differences,
- standardisation & acceptance of
    - operations related documents such as AFM, QRH, Normal/ Non-Normal Checklists, MEL, etc.

- and applicable continuing airworthiness / maintenance requirements including that of STCs, Airworthiness Directives, modifications, etc. to the Type Certificate proposed to be accepted.

c. However, BCAA will not entertain any application for the acceptance of Type Certificate / Airworthiness code of other than the original State of Design, if the aircraft observed to have operated partly under the original State of Design and partly under different state of design requirement under the respective country's TC / Airworthiness code conversion provisions. In this scenario, BCAA will only consider acceptance to the original State of Design upon ensuring that the aircraft is restored back to the original state of design standards in all respect. It the responsibility of the Owner or Operator or CAMO as applicable for the said restoration before submitting application of Certificate or Registration under the Kingdom of Bahrain.

The Type Certificate for an aircraft brought in the country for the first time is required to be accepted by BCAA and issued with a Letter of Type Acceptance (LoTA). If there is a revision carried out in TCDS by design change or incorporation of modification, this change also needs to be notified to BCAA for acceptance.

The Supplement Type Certificate if any found applied / to be applied, it shall bear the approval of the respective State Authorities issued the TCDS and as accepted by BCAA.

The old aircraft should not have crossed their "Design Service Life/Aircraft Service Life"/"Safe Operating Life Cycle".

In the case of old Aircraft, it is pre-requisite to produce evidence that the aircraft is subjected to aging aircraft inspection requirement/Supplemental Structural Inspection Programme (SSIP), Corrosion Protection Control Programme (CPCP) and Critical Design Configuration Control Limitations (CDCCL) as applicable and as recommended by the respective manufacturer and customised Maintenance Programme as necessary. An approved CAMO may be required, confirming that the aircraft, aircraft components including engines are to the latest continuing airworthiness requirements and AD standard.

Note: The aircraft was designed and manufactured in accordance with ICAO Annex 8.

4. APPLICATION PROCESS

4.1 LETTER OF INTENT

The application process commences with the applicant submitting a letter of intent to register an aircraft with the Kingdom of Bahrain addressed to the Director Aeronautical Licensing at;

Director Aeronautical Licensing
Civil Aviation Affairs
P.O. Box 586
KINGDOM OF BAHRAIN

Telephone : (+973) 17337449

A meeting will then be arranged by the Director so that the registration process may be explained by the CAA technical personnel. The applicant will be directed to the CAA website in order to download all applicable forms and liaison officers will be nominated.

The meeting may be held by the Director with the chiefs of each division (OPS/AWI/PEL) to have the prospective owner / operator briefed on the airworthiness, operations, and licensing requirements and to ensure that the certification standards and the configuration of aircraft are acceptable to BCAA as per the relevant regulation(s) and this guidance document.

BCAA has the rights to reject the proposal and / or the application if the aircraft is suspected to be in non-conformity with the eligibility criteria regarding certification specification acceptable to BCAA, requirement of the concerned regulation and the procedure enumerated here in this guidance document.

4.2 APPLICATION

Application for the registration of an aircraft in the Kingdom of Bahrain shall then be made using CAA form ALD/AIR/F008 - "Application for Registration of an Aircraft" (link for the forms - http://mtt.gov.bh/content/caa-licenses-and-applications) and shall include or be accompanied by such particulars and evidence relating to the aircraft and the ownership and chartering thereof as it may require to enable it to determine whether the aircraft may properly be registered ~~in~~ with the Kingdom of Bahrain.

On submission of the application for registration and based on the outcome of the meeting with the authorised representative of the prospective owner / operator as mentioned in Para 4.1 above, a registration number can be allotted provisionally for proceeding with the requirement at Para 5.12, 5.13, 5.14, 5.15, 5.16, 5.17 & 5.18 below.

Allotment of Registration Number to an Aircraft Owner / Operator with the number previously used and subsequently withdrawn due to de-registration is not entertained. Except, at the discretion of the BCAA the request for such reuse may be examined by BCAA. The criteria required to be considered are as follows but not limited to:

1. The number should have only been used previously by the same Owner / Operator.
2. The aircraft allotted with the number has been permanently withdrawn from service and / or de-registered and the past history is established.
3. The aircraft has been permanently withdrawn from service cleared off from investigation procedures of any accident / incident, litigations / pending court proceedings / legal attachments etc.
4. The previously allotted number has been cancelled from the aircraft registry due to de-registration.
5. The ICAO's Aircraft Registry System does not show the existence of the Registration Number.
6. The deactivation of codes related to but not limited to Mode "S", ELT, etc., against the de-registered aircraft and registration number.

In general, the reuse of numbers may be permitted when all the above criteria are in favour of the legal entity / BCAA provided that-

(a) the number is not used by the owner / operator, other than that of the previous owner / operator.

(b) The number is cancelled from the aircraft registry at least 5 years prior to the date of application for permission to reuse such number.

5. SUPPORTING DOCUMENTATION

The following documentation is applicable only for registration of an aircraft and is additional to the requirements for an applicant for AOC/Authorisation or the addition of an aircraft to an existing AOC/Authorisation holder. C of R and SSR application forms, must be signed by the owner or notarised representative.

Note1: USCA may issue the necessary short-term waivers / exemption with limitations / conditions on any of the requirements given under this section of CAP 16, if considered acceptable under the provision of ANTR PART V / GAPM Section-7 and in accordance with procedures given under CAP-12.

Note2: Kingdom of Bahrain as signatory to Hague Convention will accept authenticated / apostilled documents from signatory States for the documents referred under Para 5.1 & 5.6..

5.1 Application for Registration (ALD/AIR/F008) must be submitted well in advance of the expected date of issue of Certificate of Registration.

The application shall be in original and signed by the owner or its notarised representative supported by the power of attorney. Notarisation must be validated by the Bahrain Ministry of Foreign Affairs. A certified copy of the valid power of attorney must accompany the application. In the case of unforeseen situation, where the power of attorney is not readily available, BCAA may accept any other original documentary evidence of authorisation (certified) giving full powers to submit the related application and / or documents associated. The above is required to be submitted only when the owner is represented. If the owner is a person and not represented, owner's Passport / CPR will suffice.

5.2 Current Type Certificate Data Sheet (TCDS) issued by the state of design.

The type certificate issued by the State of the Manufacturer / design (FAA/EASA/CAA UK/TCCA or any other regulation acceptable to the BCAA) would be accepted by the BCAA (**Refer Para 3.2 above**). BCAA shall accept and issue LoTA based on the original TCDS holder details / relevant Data referred therein.

Condition: All continuing airworthiness requirements, mandatory airworthiness information, aircraft operations requirements / limitations issued by the type certificate holder or State of Design, and manufacture, as accepted by the BCAA through LoTA shall be applied on the aircraft. Subjecting the aircraft to different Type Certificate requirements and related data, other than accepted by LoTA is considered as a violation to BCAA regulations.

5.2.1 Export C of A.

Export C of A however must prescribe any variance(s) to the original type certificate, for BCAA to issue the necessary waivers if considered acceptable.

Export Certificate of Airworthiness (issued not prior to 60 days from the date of application). Where the country of export does not issue export C of A, the same must be brought to the

knowledge of the BCAA at the time application for Certificate of Registration for acceptance and to derive alternate means of compliance

5.3 Import Clearances, as required from any Ministry (ies).

5.4 Bill of Sale / Proof of ownership in the case of the aircraft procured from a previous owner (Evidence to the effect that the aircraft has been purchased or wholly owned by the applicant). Submit Form ALD/AIR/F093 along with the notarised / legalised transfer of ownership legal instrument.

Note: Once a C of R has been issued, it is a legal requirement to change the certificate details whenever, there is a change in ownership. It automatically lead to changes in the Aircraft Registry, C of R re-issued with the present owner's details and change of Owner's Name Plate / Aircraft Identification Plate.

5.5 Bahraini Custom Clearance if applicable.

5.6 Notarised Lease Agreement in original, (Notarisation must be validated by the Bahrain Ministry of Foreign Affairs) if the aircraft acquired under the lease provisions.

5.7 In case the aircraft is owned by a company or corporation, a document of registration of the company and the names, addresses and nationalities of the Directors.

5.8 Certified true copy of evidence of the existence of aircraft owner (if it is an entity).

5.9 If the aircraft is mortgaged, the mortgaged document as applicable.

5.10 Authorisation Letter from the Owner (lessor / mortgaged agency) to Operator must be presented clearly stating that the aircraft may be operated by the operator. This letter must be signed by the owner, be notarised and submitted in original (Notarisation must be validated by the Bahrain Ministry of Foreign Affairs).

5.11 Certificate of De-registration from the previous state of registry or a written statement from the state of manufacturer that the aircraft is not registered in the country of export.

5.12 Application (ALD/AIR/F094) for obtaining Radio Navigation & Communication license from the Telecommunication Regulatory Authority (TRA) to be submitted to BCAA for verification and approval. The list of radio equipment installed on the aircraft is verified against the list of equipment submitted along with the delivery documents (such as aircraft equipment list, weight & balance document etc. The nomenclature of the document and / or the contents therein may be presented different ways by different manufacturer). The owner / operator shall submit the said documents where such equipment listed at the time of application. Upon approval by the BCAA, the owner / operator submits application and such documents as necessary to the TRA for obtaining Radio Navigation & Communication License.

5.13 SELCAL Code. The SELCAL Code is obtained by the operator from ICAO and not given by the Civil Aviation Authority. The operator is required to approach Aviation Spectrum Resources Inc. (ASRI) SELCAL Registrar Section and apply for a SELCAL code. This is done electronically via the internet at http://www.asri.aero . The ASRI response with confirmed SELCAL code should be submitted to BCAA.

5.14 Proof of allotment of ELT Code.

5.15 Proof of allotment of Transponder Code. (SSR Mode S). Submit Application (ALD/AIR/F052) duly signed by the owner of the aircraft, or his/her notarised representative. Notarisation must be validated by the Bahrain Ministry of Foreign Affairs.

5.16 Application for Noise Certificate (ALD/AIR/F035) along with a copy of the noise certificate issued by the type certification authority. The original noise certificate **(ALD/AIT/F003)** must indicate compliance with ICAO Annex 16 Volume 1. This application may be signed by the Responsible post holder of the organisation.

5.17 Certification related to the prevention of intentional fuel venting shall be granted by the BCAA on the basis of satisfactory evidence that either the aircraft or the aircraft engines comply with requirements of ICAO Annex 16, Volume II, Chapter 2.

Note: The document attesting certification relating to fuel venting may take the form of a separate fuel venting certificate or a suitable statement contained in another document approved by the certificating authority.

5.18 Emissions certification shall be granted by the BCAA on the basis of satisfactory evidence that the engine complies with requirements which are at least equal to the stringency of the provisions of ICAO Annex 16, Volume II. Compliance with the emissions levels of ICAO Annex 16, Volume II Chapters 2 and 3 shall be demonstrated using the procedure described in Appendix 6 to ICAO Annex 16, Volume II.

Note: The document attesting emissions certification may take the form of a separate emissions certificate or a suitable statement contained in another document approved by the certificating authority.

5.19 Evidence for having allotted necessary budget to train the BCAA inspectors (Airworthiness & Operations) on the aircraft type, if the aircraft type intended to be registered is new and first of its kind in the Kingdom of Bahrain.

5.20 Proof of Insurance. (Insurance Certificate / Policy indicating the MSN / Hull No. issued before submitting application for C of R). Once a Bahraini C of R (regular) is issued, Insurance Certificate for the specific aircraft with the details of insured to, Policy Period, Aircraft Type & Model, Aircraft MSN, registration mark mentioned therein must be presented. The Insurance Policy shall state "Aviation Legal Liability Insurance covering the Insured's Third Party Legal Liability, Bodily Injury and Property damage, Passenger (Including Passenger's Baggage) Legal Liability, Cargo, Mail Premises, Hangar Keepers and Products Legal Liability. Refer to published AIPs if any in this regard.

5.21 Fee for Registration. Refer to CAP 18.

5.22 The BCAA would normally conduct the C of R and C of A process on-site.

Note 1: Certified True Copy means: a photocopy of an original document stamped, signed and dated as 'certified true copy of the original document' by a notary, aircraft operator's solicitor or lawyer, the aircraft owner or his/her representative supported by power of attorney (e.g. aircraft operator) or by an authorised person from the entity or corporation which issued the document to be certified as true copy.

Note 2: Ownership title means, the title listed or to be listed in a Certificate of Registration (e.g. mortgagee, security trustee, lessor, etc.).

Note 3: Aircraft owner means, the name and address of every person who is entitled to a legal interest in the aircraft or share as stated in aircraft bill of sale, purchase agreement or the provided evidence of ownership title, or in the case of an aircraft which is the subject of a lease agreement or any other aircraft property related agreement, the name and address of the involved parties (e.g. lessor and lessee).

Note 4: Evidence of existence of aircraft owner means, when aircraft's owner is an entity: (i). a certified true copy of articles of incorporation of the entity with stamp of registration by the Commercial Registry or applicable Registry of the State where such entity was incorporated; or, (ii). when it is not an incorporated entity (e.g. it is a limited partnership) that equivalent establishment documents shall be provided; or, (iii). a certified true copy of extract of entity registration certificate issued by the Commercial Registry or applicable Registry of the State where such entity was incorporated; or, (iv). when a partnership is established by a Trust, a certified true copy of the complete trust instrument and a notarized trustee (s) affidavit confirming that the aircraft title has been transferred to the respective trustee (s).

5.22.1 Import of Aircraft

5.22.2 Import of Aircraft under foreign registration
An aircraft may be imported under foreign Certificate of Registration and Certificate of Airworthiness. The Bahrain Certificate of Registration and Certificate of Airworthiness shall be issued after the aircraft arrives in the Kingdom of Bahrain and the owner/ operator complies with the applicable registration and airworthiness requirements.

5.23. Import of aircraft under the Kingdom of Bahrain registration

5.23.1. In case the aircraft is imported under the Kingdom of Bahrain Registration, arrangements for physical inspection of the aircraft by BCAA Inspectors at foreign location shall be made by the owner/operator for issuance of C of R and subsequently the C of A prior to the import of the aircraft.

6. REGISTRATION PROCESS

Upon submission of the application, documents as required in the preceding paragraphs, and upon satisfactory examination by BCAA, the Certificate of Registration will be issued in the format **ALD/AIR/F009**.

7. LEASE-IN & LEASE-OUT AGREEMENT

Please refer to CAP 06 – Leasing and Charter Arrangement for the detailed Lease-In & Lease-Out arrangements and agreements.

The lease agreement must also clearly define the regulatory oversight responsibilities. Should a transfer in regulatory responsibilities be required, the BCAA and the other NAA must enter into a Memorandum of Understanding under ICAO Article 83 *bis*.

8. CHANGE OF OWNER / OPERATOR / AMENDMENT OF C OF R

Applicable in case the prospective owner is covered under the eligibility mentioned under chapter 3.1. In the case of other than the one listed under chapter 3.1, the procedure given at paragraph 18 will apply.

8.1 If an aircraft is sold to another person or company or ceases to be owned by the owner indicated on its Certificate of Registration, the registered owner shall forthwith notify this fact to BCAA in accordance with the Article 51 of Civil Aviation Law 14 of 2013.

8.2 The new owner of the aircraft previously registered with the Kingdom of Bahrain shall forthwith inform the BCAA of the fact of this change of ownership and shall make an application on form **ALD/AIR/F008** for registration of the aircraft in their name. However, the registration number of aircraft shall / may remain the same.
The application shall be accompanied by:

(a) An affidavit duly authenticated by a Notary from the old owner confirming his ownership and indicating that he has sold it to the new owner and has received the sale proceeds in full; and

(b) Permission for local acquisition issued by Ministry(ies) concerned as applicable.

8.3 Until the Certificate of Registration is granted to the new owner, it shall not be lawful for any person to fly or assist in flying such aircraft except in accordance with a written permission of BCAA.

8.4 Change of Operator

If an owner / lessor transfers the lease of an aircraft to a person or company, or operator, the process as mentioned for registration of an aircraft shall be followed. However, the registration number of aircraft shall remain the same.

8.5 Amendment in Certificate of Registration

For amendments of any entry other than change of owner or operator, evidence required for affecting the amendments shall be provided by the applicant..

9. REGISTRATION CERTIFICATE AND VALIDITY OF REGISTRATION OF AIRCRAFT

9.1 On registration, BCAA will assign nationality or common marks for the aircraft.

9.2 Registration markings shall not be allotted which might be confused with International Code of Signals, especially:

a) Registration beginning with the letter ‘Q’

b) Registrations ‘SOS ‘, ‘XXX’, ‘PAN’ and ‘TTT’

9.3 Upon registration a Certificate of Registration shall be issued to the owner, which will be valid from the date of registration,

a) Till the date indicated on the Certificate of registration of the aircraft.

b) So long as the ownership / Lease Agreement remains valid

c) AOC granted to the operator remains valid

d) Till such time the conditions remain in compliant with Chapter 2.2 of ANTR PART-V.

9.4 The Certificate of Registration shall be in accordance with Article 29 of the ICAO Convention and the Certificate of Registration shall be carried on board each aircraft engaged in air transport operation.

9.5 The Owner / Operator may apply to BCAA for varying any particular(s) in the Certificate of Registration.

9.6 When it first enters on its register an aircraft of a particular type for which BCAA is not the State of Design, and issues a Certificate of Registration / Airworthiness, it shall advise the State of Design that it has entered such an aircraft on its register.

Note: In the case of acceptance to a different Type Certificate / Airworthiness Code from that of the State of Design, under the policy described under Para 3.2 above, then such details shall also be communicated to the state, whose Type Certificate / Airworthiness Code is accepted.

The organization responsible for type design will also be advised of all mandatory continuing airworthiness information originated in respect of that aircraft in the former State of Registry.

9.7 For removing the hypothecation / mortgages name from the Certificate of Registration the owner may apply to BCAA with documents substantiating the same.

10. OTHER DOCUMENTS

Documents other than those mentioned in Chapter 9 above and as required by the "Aircraft Registration Check List" **(ALD/AIR/F184)** as part of overall action plane monitoring for AOC requirements.

11. BCAA DOCUMENT SUBSCRIPTION DETAILS

Evidence must be provided by the applicant that a document subscription is available for all applicable maintenance documents. The subscription should be available to the BCAA.

12. LIAISON

The registration process requires considerable liaison between the owner / operator and the BCAA. To ensure a smooth process the BCAA requires the applicant to provide an individual, who will be available to the BCAA and controlling the registration process. The quality manager – CAMO would normally be appointed as liaison officer.

The liaison officer should prepare a "Registration of Aircraft checklist" of the requirements/documentation listed in **(ALD/AIR/F184)**. The completed checklist must be submitted to Bahrain BCAA, supported by the following statement by the Accountable Manager:

"I hereby confirm that the aircraft and documentation has been inspected/audited and found in compliance with the latest (ANTR Part... *or* ...Operational Requirements... *or* Maintenance Programme Requirements...*as applicable*) and all modification inspections classified as mandatory are accomplished, accordingly the aircraft is airworthy".

13. REGISTRATION MARKS

13.1 General

The aim of displaying the registration mark is to allow ready identification of the aircraft. The requirements are specific but there are a number of points which some aircraft owners and operators may fail to appreciate. These are stressed in the following paragraphs:

(a) The nationality mark of the aircraft shall be **"A9C"** and the registration mark shall be a group of capital letters in Roman character assigned by the BCAA on the registration of the aircraft.

Note: Applicants may write to the CAA requesting a particular registration mark.

(b) The letters shall be without ornamentation and a hyphen shall be placed between the nationality mark and the registration mark. For the side lettering a slope of not more than 30 degrees is acceptable.

(c) The nationality and registration marks shall be displayed to the best advantage, taking into consideration the constructional features of the aircraft and shall always be kept clean and visible. The 'best' advantage is the best advantage of an external viewer either on the ground or in another aircraft.

(d) The letters constituting each group of marks shall be of equal height and they, and the hyphen, shall be of a single colour which shall clearly contrast with the background on which they appear. The following notes give guidance and an idea of the general principles involved on suitable colour schemes.

(1) Dark lettering against a light background is preferred but light lettering on a dark background is acceptable.

(2) Ideally the background should be of uniform colour and have a gloss finish, and lettering should be matt. However, if light lettering is used, this should be gloss while the background should be matt.

(3) Recommended colours for registration letters include: black, dark blue, dark green, dark red and dark purple.

(4) Recommended background colours include: white, yellow, light blue (but not with dark blue letters), light green (not with dark green) and pink (not with red).

(5) Intermediate colours such as orange, brown and grey should be avoided for either lettering or background.

13.2 Position and Size of Marking

Refer to Chapter-4 of ANTR Part V – General Airworthiness Regulations for details.

14. IDENTIFICATION PLATE

An aircraft shall carry an identification plate inscribed with its nationality and registration mark together with the name and address of the registered owner/lessee/lessor. The plate shall be made of fireproof metal or other fireproof material of suitable physical properties and shall be secured to the aircraft in a prominent position near the main entrance or, in the case of an unmanned free balloon, affixed conspicuously to the exterior of the payload.

The Identification Plate affixed as stated above shall be removed and submitted to the BCAA / evidence of removal in the form as required by BCAA submitted to the BCAA on cancellation and / or de-registration of the aircraft from the Aircraft Registry of the Kingdom of Bahrain.

15. DE-REGISTRATION /CANCELLATION OF REGISTRATION OF AIRCRAFT

When transferring an aircraft to another State / person / organisation / entity the applicant (owner) shall inform the BCAA by submitting a deregistration application, together with a De-registration of Aircraft Checklist of the requirements/documentation listed in **Form ALD/AIR/F185**. Upon receipt of the De-registration of Aircraft Form (**ALD/AIR/F071**) forwarded with the required charges as per CAP-18 (Schedule of Charges), from the aircraft owner the aircraft may be removed from the Bahrain national civil aircraft register.

The BCAA may issue a Cancellation of Registration of Aircraft **(ALD/AIR/F101)** upon request.

De-Registration / Cancellation of Certificate of Registration requires review of the AOC granted to the operator for suitable amendment(s) to AOC or surrender of AOC by the operator, in the case of single Aircraft operator.

The AOC may be considered valid for a period of three months from the date of de-registration of all of the aircraft operated by them provided that the erstwhile AOC holder submit evidence in support of their action plan to induct aircraft to their entity for operation within this period subject to acceptance by BCAA .

15.1 The registration of an aircraft registered with the Kingdom of Bahrain may be cancelled / deregistered at any time by the BCAA, if it is satisfied that:-

a. Applied by the owner for deregistration; or
b. such registration is not in conformity with Chapter 2.2 of ANTR PART-V; or
c. the registration has been obtained by furnishing false information; or
d. the aircraft could more suitably be registered in some other country; or
e. the aircraft has been destroyed or permanently withdrawn from use; or
f. it is inexpedient in the public interest that the aircraft should remain registered with the Kingdom of Bahrain; or
g. the lease in respect of the aircraft registered pursuant to Chapter 2.2 of ANTR PART-V
    i. has expired, or
    ii. has been terminated by mutual agreement between the lessor and the lessee, or

iii. has been otherwise terminated in accordance with the provisions of the Lease Agreement, or terms of lease

h. the Certificate of Airworthiness in respect of the aircraft has expired for a period of five years or more.

16. CHARGES

The Operator/Owner of the aircraft shall provide full travel expenses for the BCAA representatives conducting aircraft inspection(s) for the C of R & C of A process.

17. ISSUE OF DUPLICATE CERTIFICATE OF REGISTRATION

17.1 Where a certificate has been lost, the owner may apply to BCAA for the issue of a duplicate certificate with an affidavit, a copy of the lost report filed with the security department for the loss and the prescribed fee.

17.2 Where a certificate has been mutilated, the owner may apply for issue of a duplicate certificate to the BCAA with the mutilated certificate and the prescribed fee.

18. RECORDING OF IRREVOCABLE DE-REGISTRATION AND EXPORT REQUEST AUTHORIZATION (IDERA)

For recording IDERA with BCAA the IDERA holder or his authorized signatory or certified designee of the authorized signatory shall submit application / IDERA **Form ALD/AIR/F202**, in three sets.

If the IDERA is not submitted on the date of registration, the registered aircraft owner / operator may submit the application to the BCAA to record the IDERA at a later stage; however, the IDERA shall be drafted in accordance with the requirement given hereunder.

Where the Authorised Party named in an IDERA no longer exists, the successor or new party entitled to be Authorised Party shall be established to the satisfaction of the BCAA.

When the Authorised Party named in an IDERA, ceases to be the Authorised Party, or in the case of an entity which is being dissolved, the IDERA position shall be examined by the legal successor/legal representative at an early stage and action shall be taken to update the IDERA records with BCAA.

In case an IDERA letter is issued in favour of the registered owner, the BCAA will execute it when so is requested by the said registered owner in his capacity as Authorised Party as mentioned in the recorded IDERA letter.

The IDERA letter shall be signed by the aircraft registered owner and/or its authorized registered operator. The BCAA will not accept and record an IDERA letter that is not drafted in the form annexed to the Aircraft Protocol thus incomplete or incorrect IDERA letters will be returned to the applicant with possible consequential delays.

An IDERA shall be removed only with the written consent of the Authorised Party or its Certified Designee. The BCAA shall act on the removal request and send a notification on its

decision to the applicant. At this point the aircraft can be de-registered or the possession of the aircraft can change.

Authorised Party means the person/entity in whose favour the IDERA letter has been issued and is registered by the BCAA. The Certified Designee means the person/ entity authorized by the Authorised Party by using the applicable form.

Reference Documents:

1. Protocol to the CONVENTION ON INTERNATIONAL INTERESTS IN MOBILE EQUIPMENT ON MATTERS SPECIFIC TO AIRCRAFT EQUIPMENT Signed at Cape Town on 16 November 2001.

2. Bahrain Civil Aviation Law 14 of 2013

18.1 For de-registration of an aircraft under The "Irrevocable Deregistration and Export Requested Authorization" as contemplated in Article XIII of the Cape Town Protocol .

18.1.1 Provided that the deregistration of an aircraft by the BCAA under the Article 51 of Civil Aviation Law 14 of 2013 shall not affect the right of any entity thereof, or any inter-governmental organization, or other private provider of public services in the Kingdom of Bahrain to legal proceedings or detain or attach or sell an aircraft object under its laws for payment of amounts owed to the Kingdom of Bahrain, any such entity, organization or provider directly relating to the services provided by it in respect of that object.

18.1.2 The registered owner or his authorized representatives may apply to BCAA for cancellation of registration, enclosing original C of R. The applicant should also specify the Article under which cancellation is sought. In case, it is proposed to invoke lease clauses, the request for deregistration shall be supported by full explanation regarding the relevant provision of the lease agreement and the justification for using the provisions.

18.1.3 The IDERA holder shall also submit the following (in addition to the requirement given in the form - ALD/AIR/F185 along with the form for de-registration under IDERA and issue of Export Certificate of Airworthiness:

18.1.3.1 Original IDERA form in three sets

18.1.3.2 Notorised copy of the lease agreement

18.1.3.3 Notorised copy of notice of termination of lease agreement

18.1.3.4 Certificate in original stating that all registered interests ranking in priority have been discharged or holder of such interest have consented to the deregistration and export of aircraft / No objection certificate / Clearance from the entities referred under the Para 5.1 above.

18.1.3.5 Consent of owner / all board of directors of lessor in original for de-registration of aircraft.

18.1.3.6 Power of attorney by the owner / all board of directors of lessor to its authorised representative for de-registration of aircraft.

18.1.3.7 No Objection from hypothecated agencies if any.

18.1.3.8 No due certificate from the Airport Operator.

18.1.3.9 Compliance to the Export Certificate of Airworthiness requirements.

18.2 The BCAA shall, subject to any applicable safety laws and regulations, honour a request for de-registration and export in accordance with the Article IX of PROTOCOL TO THE CONVENTION ON INTERNATIONAL INTERESTS IN MOBILE EQUIPMENT ON MATTERS SPECIFIC TO AIRCRAFT EQUIPMENT Signed at Cape Town on 16 November 2001 if:

18.2.1 the request is properly submitted by the authorized party under a recorded irrevocable deregistration and export request authorization; and

18.2.2 the authorized party certifies to the registry authority, if required by that authority, that all registered interests ranking in priority to that of the creditor in whose favour the authorized has been issued have been discharged or that the holders of such interests have consented to the de-registration and export.

18.3. The Owner / operator with mutual consent and in coordination, should submit the application form ALD/AIR/F127 and compliance documents / evidences in support of the Airworthiness State of the aircraft for the purpose of issue of Export Certificate of Airworthiness. If the aircraft airworthiness requirement could not be submitted as above due to any contractual obligations / conflicts, the owner may apply to BCAA through an approved CAMO Organization as agreeable to BCAA.

19. CIVIL AIRCRAFT REGISTER

As required by Article 48 of Civil Aviation Law 14 of 2013, a register of all aircraft registered with the Kingdom of Bahrain is maintained by BCAA. The register contains the particulars as provided for in the Certificate of Registration. This register is available in the Aeronautical Licensing Directorate.

The register shall contain the following information:

(a) Certificate Number

(b) Nationality & Registration Mark

(c) Manufacturer’s Designation of Aircraft

(d) Manufacturer’s Serial Number of the Aircraft

(e) Date of Manufacture of Aircraft

(f) Name, Nationality and Address of the Owner / Lessor

(g) Name, Nationality and Address of the Lessee

(h) Name, Nationality and Address of the Operator / Sub-Lessee

(i) Mortgagee

(j) Validity of C of R (if applicable)

(k) Date of Initial Issue

(l) Date of subsequent issue (if applicable)

(m) C of R Document Reference Number.

The register shall be maintained with a provision to record cancellation and to enter any relevant remarks related to registration & de-registration.

The serial number of the entries must be continuous and cancellation / de-registration of the aircraft registration will be done by striking out the entries with a clear red line and still enable the entries readable. The word "Cancelled" or "De-registered" shall be entered / printed in the remark column using RED coloured text / pen.

The Aircraft Register is made available to the public to view, under prior appointment on any business days & hours.

20. RECORD KEEPING

The Operator and BCAA will maintain records of all documents generated and received. It may be ensured that all related records are maintained in chronological manner and all the pages are appropriately numbered. Traceability of all records should be ensured for future reference.

The following records must be available in the relevant aircraft registration folder –

(i) Records relating applications and supporting documents for the certificate of Registration.

(ii) Copies of following certificates issued –

a) Certificate of Registration (C of R)

b) Noise Certificate

c) Emission Certificate (If applicable)

d) Intentional fuel venting prevention certificate (If applicable)

e) Application (ALD/AIR/F094) for obtaining Radio Navigation & Communication license Radio License

f) Export Certificate of Airworthiness

g) Type Certificate and Type Certificate Data Sheet (TCDS)

h) Letter of Type Acceptance

i) Copy of notarized lease agreement.

j) Certified true copy of evidence of the existence of aircraft owner (if it is an entity)

k) The mortgaged document (if applicable)

l) Authorisation Letter from the Owner (lessor / mortgaged agency) to Operator

m) Import permission if any granted

n) Bill of Sale / Proof of ownership

o) Custom Clearance (if applicable)

p) Certificate of De-registration from the previous state of registry

q) SELCAL Code allotment letter

r) Proof of ELT Registration

s) Proof of allotment of Transponder Code

t) Aircraft Insurance Certificate

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SECTION – II

CERTIFICATE OF AIRWORTHINESS

SECTION – II A

I. ISSUE / RENEWAL OF CERTIFICATE OF AIRWORTHINESS

1. INTRODUCTION

Article 10 & 36 of the Civil Aviation Law No.14 of 2013 and ANTR PART V issued under the provisions of the said law requires that no aircraft shall operate in the territory of the State without a valid certificate of airworthiness issued or rendered valid by the appropriate Affairs of the State of Registry or any other State to which the powers and functions of the State of Registry have been transferred, in conformity with the established laws, rules and regulations and provided such aircraft fulfills the requirements and restrictions of the certificate of airworthiness and the Aeronautical Information Publication (AIP) issued in this regard.

This Civil Aviation Publication (CAP) provides information and the CAA policy regarding the acceptable method of applying for the issue / renewal of Certificate of Airworthiness of an aircraft in the Kingdom of Bahrain, Issue of Export Certificate of Airworthiness and Permit-To-Fly / Special Flight Permits. This CAP does not describe the requirements for AOC/Authorisation nor the maintenance requirements.

2. REFERENCES

(a) Civil Aviation Law

(b) Air Navigation Technical Regulations (ANTR)

(1) ANTR Part V – General

(2) ANTR M

3. AIRCRAFT ELIGIBILITY

The Certificate of Airworthiness to an aircraft can only be issued / renewed when the aircraft has already been registered and issued with a Certificate of Registration under the Civil Aviation Law No.14 of 2013.

Certificates of Airworthiness (**ALD-AIR-F007**) shall be issued to aircraft which conform to a type design / Certification specification that are in accordance with EASA Part 21, FAA Part 21, UK CAA & TransportCanada's Parts equivalent to FAA or EASA or any other regulation acceptable to the BCAA and meets the Type Certificate / Airworthiness Standards / Airworthiness Codes / Certification Specifications (CSs) of 23 / 25 / 27 / 29 / 31 / 33 / 34 / 35 / 36 of the respective State of Design such as FAA, EASA and its equivalent with Transport Canada, or any other regulation / Airworthiness Code acceptable to the BCAA as complementary regulations under ANTR Part V.

The acceptance of Type Certificate / Airworthiness Codes different from that of the State of Design, under the discretion of BCAA, may be considered only upon examination of service changes if any applied, jurisdiction of regulation under which the aircraft was being operated, its history of operation, maintenance, modifications and application of any STCs. It is the responsibility of the owner / operator / CAMO to address such issues, if any, prior to submission of the application with all necessary supporting documents as necessary.

The results of examination may warrant

- gap analysis in operating procedures / limitations, maintenance requirements, and bridging requirements in the case of differences,
- standardisation & acceptance of
    - operations related documents such as AFM, QRH, Normal/ Non-Normal Checklists, MEL, etc.
    - and applicable continuing airworthiness / maintenance requirements including that of STCs, Airworthiness Directives, modifications, etc.

to the Type Certificate proposed to be accepted.

However, BCAA will not entertain any application for the acceptance of Type Certificate / Airworthiness code of other than the original State of Design, if the aircraft observed to have operated partly under the original State of Design and partly under different state of design requirement under the respective country's TC / Airworthiness code conversion provisions. In this scenario, BCAA will only consider acceptance to the original State of Design upon ensuring that the aircraft is restored back to the original state of design standards in all respect. It the responsibility of the Owner or Operator or CAMO as applicable for the said restoration before submitting application of Certificate or Registration under the Kingdom of Bahrain.

BCAA shall accept and issue LoTA based on the original TCDS holder details / relevant Data referred therein.

The Type Certificate for an aircraft brought in the country for the first time is required to be accepted by BCAA and issued with a Letter of Type Acceptance (LoTA). If there is a revision carried out in TCDS by design change or incorporation of modification, this change also needs to be notified to BCAA for acceptance.

The Supplement Type Certificate if any found applied / to be applied, it shall bear the approval of the respective State Authorities issued the TCDS and as accepted by BCAA under the provisions of ANTR PART V.

Condition: All continuing airworthiness requirements, mandatory airworthiness information, aircraft operations requirements / limitations issued by the type certificate holder or State of Design, and manufacture, as accepted by the BCAA under the provisions of ANTR PART V through LoTA shall be applied on the aircraft. Subjecting the aircraft to different Type Certificate requirements and related data, other than accepted by LoTA is considered as a violation to BCAA regulations.

4. APPLICATION PROCESS

APPLICATION

Application for the issue / renewal of Certificate of Airworthiness shall be submitted in CAA form **ALD/AIR/F005 -** "Application for Issue / Renewal of Certificate of Airworthiness" – (link for the forms - http://mtt.gov.bh/content/caa-licenses-and-applications) and shall include or be accompanied by such particulars and evidence relating to the aircraft airworthiness.

5. SUPPORTING DOCUMENTATION

The following documentation as applicable for issue / renewal of Certificate of Airworthiness required to be submitted.

ISSUE OF CERTIFICATE OF AIRWORTHINESS:

a. Copy of the Certificate of Registration.

b. Copy of Type Certificate (If found revised after the registration of aircraft with BCAA).

c. Standard Certificate of Airworthiness / Statement of Built / Certificate of Conformity (if and as applicable) issued by the State of Design or the Airworthiness Code from the state that has been accepted by the BCAA.

d. Export Certificate of Airworthiness (issued not prior to 60 days from the date of application). Where the country of export does not issue export C of A, the same must be brought to the knowledge of the BCAA at the time application for Certificate of Registration for acceptance and to derive alternate means of compliance.

e. If the type of aircraft is being introduced / imported into the country for the first time (new or used),

1. If the type of aircraft is being introduced/ imported into the country for the first time (new or used), the owner / operator shall submit one set each of the following updated technical literature:

(i) Airplane Flight Manual / Pilots Operating Handbook.

(ii) FCOM (where applicable).

(iii) MMEL.

(iv) Aircraft Maintenance Manual.

(v) Engine Maintenance Manual.

(vi) Trouble Shoot / Fault Isolation Manual.

(vii) Overhaul Manual (Where applicable).

(viii) Structural Repair Manual.

(ix) Service Bulletins.

(x) SSID, CPCP document (where applicable).

(xi) Maintenance Planning Document/Manufacturers recommended inspection document.

(xii) Weight & Balance Manual.

(xiii) Weight & Balance report (including that of the initial and subsequent amendments).

The Documents as listed may be issued in electronic format.

2. The Owner / Operator shall make necessary arrangements with the Manufacturer of the aircraft / engine / APU to

- include the BCAA in their mailing list and / or with necessary subscription arrangements on behalf of BCAA for receipt of revisions / amendments to the said documents as & when revised.

- allot an access right to BCAA for all the publications from the manufacturer's website with a dedicated user name & password.

f. If the type of aircraft is being imported into the country is not a new type, the owner/ operator shall ensure that BCAA has been granted with the continued access rights to the manufacturers publications as listed under Para (e) with necessary arrangements for additional subscription on behalf of BCAA.

g. In addition to the documents listed above at Para (e)(1), the following documents are required to be submitted for review for the purpose of issue of C of A.

(i) Original Aircraft Logbooks (Airframe, Engine & APU / Technical Logbooks) complete in all respect.

(ii) Documents in support of Aircraft continuing Airworthiness Record System (ANTR M.A.305), Aircraft Technical Log System (ANTR M.A.306), Airworthiness review required in accordance with ANTR M, ANTR M.A.710, M.A.901(as applicable).

(iii) Maintenance Data status and its incorporation to Operators Approved Maintenance Programme.

(iv) Completed work package details.

(v) Flight Test Report (Performance Assurance), the manufacturer's test flight report prior to the issuance of Standard C of A / Statement of Built / Certificate of Conformity (if and as applicable) / Export C of A or customer acceptance test flight prior to delivery is considered acceptable in the case of a new aircraft.

However, Flight Test Report (Performance Assurance) is required, in case the aircraft is not new and / or not subjected to continuous performance evaluation system by the operator / CAMO and / or the aircraft was subjected to a major modification / repair / replacement requiring performance of a test flight. BCAA may require a special flight test to be carried out to determine conformity with the airworthiness regulations and the operator / owner shall arrange for the test to be conducted by the personnel accepted by BCAA. The flight test schedule covers all possible performance verification task prepared by the Owner / Operator / CAMO in consultation with the manufacturer's data and approved by BCAA. It shall also meet the general conditions mentioned hereunder in Para (5)(h)(v).

(vi) Customized Weight and Balance Report giving the Empty Weight and Center of Gravity details.

(vii) Airworthiness Review recommendation in accordance with M.A.710 & M. A.901. The document review shall be performed by the authorized / designated Airworthiness Review Staff of the CAMO and the Physical Survey of the aircraft carried out either by himself or by a type license holder authorized by the CAMO / AMO in coordination with the AR Staff, if the AR Staff is not appropriately qualified. The checklist used for the review report (PART - I & II of Form ALD/AIR/F006) shall be completed in all respect and submitted.

(viii) Aircraft Flight Manual / Aircraft Operations Manual.

(ix) MEL and its conformity with the corresponding MMEL.

(x) Airworthiness Directive Compliance details of each Airframe, Engine, APU, Radio Equipment (the list will indicate, AD No., Title, Subject in brief, Applicability, Effective from, One time or Repeat, Date of Compliance if applicable, Compliance due dates if repetitive, Remarks, etc.).

(xi) Service Bulletin Compliance details of each Airframe, Engine, APU, Radio Equipment (the list will indicate, SB No., Title, Subject in brief, Applicability, Effective from, One time or Repeat, Date of Compliance if applicable, Compliance due dates if repetitive, Remarks, etc.).

(xii) Dent & Buckle & Repair Chart for its update and its effect on additional maintenance requirements, weight & Balance and exceedance of threshold limits.

(xiii) History and records of Accidents / Incidents.

(xiv) Compass Calibration record.

(xv) Weight growth monitoring system documents for its update and its effect on weight & balance amendments.

(xvi) List of Passenger Amenities (LOPA) indicating the current status of all amenities / equipment related to safety of crew & passenger.

(xvii) Valid Aircraft Insurance.

(xviii) A valid Radio Installation License.

(xix) Aircraft document review / Physical survey Report / checklist (PART – I & II of Form **ALD/AIR/F006**) completed in all respect and certified by the responsible person of CAMO / Operator.

(xx) Flammability test report and certificate for aircraft interior materials

h. IN THE CASE OF RENEWAL OF C OF A,

(i) the documents and reports as referred under Sub-Para 5 (g) above and applicable documents of 5(e)(1) relevant to C of A renewal as referred therein.

(ii) a Test Flight Report. A test flight is required to be performed by the operator / CAMO

(1) in the case of an old / used aircraft for the purpose of issue of C of A.

(2) in case the aircraft assessment by BCAA requires for the renewal of C of A.

(3) in the case of expired C of A.

(4) the complex motor-powered aircraft is not subjected to continuous performance evaluation system or periodic sampling tests for schedule service operators.

(5) the aircraft was subjected to a major modification / repair / replacement requiring performance of a test flight so as to establish compliance with the appropriate airworthiness requirements and to prove that such modifications has not adversely affected the airworthiness requirements and aircraft performance.

(6) aircraft that have been in storage, or out of service for a prolonged period, not have been subject to the periodic continuing airworthiness requirements and will need their airworthiness status to be re-established prior to entry into service,

(7) the aircraft is brought in dismantled condition, and

the CAMO / Responsible person of the Operations department submits a certificate along with the test flight report & statement of performance observed against the manufacturer's data, stating that the aircraft performance is well within the acceptable operating limits and did not deteriorate.

(8) Current maintenance statement giving the aircraft maintenance status of what scheduled and out of phase maintenance is next due.

It is a BCAA requirement under ANTR M that an aircraft shall not fly unless:

(a) the aircraft (including in particular its engines), together with its equipment and radiostation, is maintained in accordance with an approved maintenance schedule inrelation to that aircraft; and

(b) periodic airworthiness review conducted in respect of the aircraft.

The log entries shall indicate the date on which the airworthiness review was carried out and the date thereafter when the next review is due. The entry is made by the operator/organisation.

(iii) and any other documents necessitated by BCAA to establish continued airworthiness of the aircraft, shall be submitted by the Owner / Operator / CAMO.

(iv) **GENERAL CONDITIONS:**

(a) The flight tests are required to ensure that the aircraft flight characteristics and the functioning in flight of the aircraft do not differ significantly from the normal performance for the type.

(b) Should the BCAA require a Flight test for the renewal of a Certificate of Airworthiness it must be conducted in accordance with an airworthiness flight test schedule prepared for the aircraft type by the manufacturer and acceptable to the BCAA. Flight performance should be checked against the appropriate sections of the flight manual, which is fully amended to current standards.

(c) The operators of complex motor-powered aircraft may evolve a system within their "Operations Section" preparing flight plans, for the convenience of operating crew, for conducting each revenue / non-revenue flight, based on the performance data documented by the manufacturers. Under this system, operating crew should be expected to report back on the actual performance of aircraft during flight vis-a-vis the prepared plan. Significant variations in aircraft's performance shall be investigated by the operator so that corrective measures are initiated promptly.

(d) Alternately the operators of complex motor-powered aircraft may have aircraft performance monitoring cell in their CAMO for keeping the performance of each aircraft under continuous surveillance by regularly analysing the flight data like flight performance, ROC, cruising speed, fuel consumption, range of Radio/ Radar equipment etc., collected flight reports for detecting any persisting shortfall in the performance of any aircraft.

(e) The Test Flight Personnel shall meet the following conditions:

(a) Commercial and / or complex motor-powered Aircraft

(i) a valid Airline Transport Pilot License with the type rating of aircraft to be test flown

(ii) at least 1000 hours total flying time which shall include :

(1) at least 500 hours flying time as PIC; of which

(2) at least 10 hours as PIC on type within a period of three months immediately preceding the date of flight test.

(b) Private and / or non-complex motor powered Aircraft

(i) at least a valid Private Pilot's licence (PPL) endorsed for the type of aircraft; with

(ii) at least 500 hours total flying experience which shall include:

(1) at least 200 hours as PIC, of which

(2) at least 10 hours as PIC on type within a period of three months immediately preceding the date of flight test.

(f) The test flight shall be conducted with the minimum number of flight / cabin / maintenance crew as required for specific test flight requirement.

6. SCRUTINY / EXAMINATION / INSPECTION BY BCAA AND ISSUE / RENEWAL OF CERTIFICATE OF AIRWORTHINESS

6.1 ISSUE OF CERTIFICATE OF AIRWORTHINESS

On receipt of the application and the documents submitted by the operator as referred under Para 5(a) to 5(g) above, BCAA carryout:

a. Application Review

b. Aircraft Configuration Identification. To determine the status in comparison with the TCDS / STCs and to identify incorporation of modification to the original TCDS / STCs configuration and necessary document support thereof. It is necessary to determine at the time of issue of C of A.

c. Aircraft Document Review (all applicable documents as referred under Para 5(g) & (h) above. The Document Review form and the Airworthiness Review recommendation submitted by the Operator / CAMO are used for the review by the BCAA inspector and verified for compliance. Document review may require visiting the operator's / CAMO's facility and / or examination of additional documents / evidence / work packages as deemed necessary by the Inspector to establish compliance to the airworthiness requirement of the aircraft.

d. Carryout Physical Survey of the Aircraft.

The purpose of a survey is to establish that an aircraft complies with Bahrain airworthiness requirements and standards and is, therefore, acceptable for the issue of a C of A. The extent of the survey will depend on the circumstances, having given due consideration to the origin and history of the aircraft. The survey would be conducted at no cost to the BCAA.

The Physical Survey form and the Airworthiness Review recommendation submitted by the Operator / CAMO are used for the physical survey by the BCAA inspector and verified for compliance. BCAA inspector shall be accompanied by the type rated AML holder with the respective category & authorised for the performance of operational / functional tasks as necessary, while carrying out the Physical Survey (Part of **Form ALD/AIR/F006**).

The owner / operator shall make the aircraft available at a time and place mutually acceptable to each other and shall provide personnel & equipment to perform this survey efficiently.

e. After completion of the document scrutiny and physical survey and confirming compliance to the airworthiness requirement, the Certificate of Airworthiness will be Issued by BCAA.

6.2 RENEWAL OF CERTIFICATE OF AIRWORTHINESS

On receipt of the application and the documents submitted by the operator as referred under Para 5(g) to 5(h) above, BCAA carryout:

a. Application Review

b. Aircraft Configuration Identification. To determine the status in comparison with the TCDS / STCs and to identify incorporation of modification to the original TCDS / STCs configuration and necessary document support thereof. It is necessary to determine at the time of renewal of C of A.

c. Airworthiness Review:

(i) Examination of Aircraft review document submitted by CAMO (all applicable documents as referred under Para 5(g) & (h) above,
(ii) Examination of physical survey report (Part of **Form ALD/AIR/F006**) and

(iii) the Airworthiness Review recommendation by the Airworthiness Review staff

The reports and recommendation as submitted above are verified for its completion and upon confirming compliance to the airworthiness requirement, the Certificate of Airworthiness will be renewed by BCAA.

Note: 1 The airworthiness review reports / recommendations verification / review by BCAA may require visiting the operator's / CAMO's facility and / or examination of additional documents / evidence / work packages as deemed necessary by the Inspector to establish compliance to the airworthiness requirement of the aircraft.

Note: 2 The purpose of a physical survey is to establish that an aircraft complies with Bahrain airworthiness requirements and standards and is, therefore, acceptable for the C of A. The extent of the survey should depend on the circumstances, having given due consideration to the origin and history of the aircraft and as influenced by the knowledge of the competence and reliability of the engineering staff concerned and the general standards of workmanship and airworthiness standards normally achieved by the organisation involved. The physical survey for the purpose of C of A renewal, if necessitated to be conducted by BCAA for any reasons, this would be conducted at no cost to the BCAA.

The Physical Survey form submitted by the Operator / CAMO may be used for the physical survey by the inspector and verified for compliance. Where it is necessary for the BCAA inspector to carry out physical survey (Part of **Form ALD/AIR/F006***), BCAA inspector shall be accompanied by the type rated AML holder with the respective category & authorised for the performance of operational / functional tasks as necessary. The owner / operator shall make the*

aircraft available at a time and place mutually acceptable to each other and shall provide personnel & equipment to perform this survey efficiently.

Note: 3 Should the outcome of the airworthiness review be inconclusive, or should the review under point M.A.710 & M.A.901 as applicable shows discrepancies on the aircraft linked to deficiencies in the content of the maintenance programme, the airworthiness review recommendation shall not be issued untill all findings have been closed.

7. VALIDITY OF CERTIFICATE OF AIRWORTHINESS

A Certificate of Airworthiness (C of A) issued by BCAA (**Form ALD-AIR-F007**) is valid for a period of one year.

The C of A shall remain valid subject to the condition that:

a. the Certificate of Registration remains valid,

b. the type-certificate remains valid and aircraft configuration is in conformity with the TCDS / STCs, / Modifications etc.,

c. the aircraft remained in a controlled environment,

d. all equipment / components / parts as required by the TCDS are onboard and are in satisfactory condition,

e. the aircraft, or such of its equipment as is necessary for the continued airworthiness has been maintained, overhauled, repaired, modified or removed / replaced in a manner and with the material approved by the BCAA,

f. all required maintenance / inspections of the aircraft, or any components which are necessary for the purpose of continued airworthiness of the aircraft performed at the appropriate interval in accordance with the approved maintenance programme,

g. life limited components are replaced as approved at the appropriate interval,

h. all reported defects are rectified and certified,

i. all applicable release to service requirements are fulfilled,

j. weight & balance data is accurate and within the limits stipulated in the TCDS / AFM,

k. the Flight Manual is maintained upto date and placed in aircraft,

l. all mandatory documents and safety equipment onboard the aircraft are up to date and in satisfactory condition,

m. the aircraft is operated within the limitations of the AFM,

n. the aircraft is not involved in accident or incident that affects the airworthiness status and / or post-accident / incident action has been addressed in proper manner and the corrective action restored the airworthiness status of the aircraft.

o. general condition of the aircraft remains satisfactory.

8. SUSPENSION OR CANCELLATION OF CERTIFICATE OF AIRWORTHINESS

8.1. The Certificate of Airworthiness of an aircraft shall be deemed to be suspended when,

(i) An aircraft ceases or fails to conform with the regulation in respect of operation, maintenance, modification, repair, replacement, overhaul, process or inspection applicable to that aircraft.

(ii) Continuing Airworthiness not Managed as required by regulation,

(iii) "Lifed" components when due are not replaced / Certification Maintenance Requirement (CMR) items not complied,

(iv) Mandatory modifications/ inspections are not carried out, as and when due,

(v) Unapproved repairs/ Modifications are carried out,

(vi) Unapproved materials/ procedures/ practices are used,

(vii) Accident / incident which affects the airworthiness of aircraft,

(viii) Aircraft has suffered major damage or defect or develops a major defect, which would affect the safety of the aircraft or its occupants in subsequent flights,

(ix) Valid and current mandatory documents are not carried on board,

(x) When the Aircraft considered being outside a controlled environment,

8.2. Whenever a Bahraini registered aircraft suffers major damage or defect or any of the condition, enumerated at Para 8.1 above is encountered, it shall be the responsibility of the operator to inform the BCAA, promptly the extent of damage or nature of defect and circumstances, which caused the same.

8.3. On receipt of report regarding major defect / damage to an aircraft, BCAA may formally suspend the Certificate of Airworthiness, if BCAA feels that reasonable doubt exists as to the safety of the aircraft or as to the safety of this type of aircraft to which that aircraft belongs. BCAA may make necessary endorsement in the Certificate of Airworthiness itself.

8.4. The BCAA may require the owner or operator to render a survey report on the damage or nature of defect encountered which resulted in suspension.

8.5. The BCAA shall further require the aircraft or aircraft component or an item of equipment of that aircraft to undergo such modification, repair, replacement, overhaul, inspection including Flight Tests and examination under supervision of appropriately licensed AML holder / authorized person as a condition for revalidation of C of A. For this purpose, the operator shall submit a complete proposal concerning the method proposed to be adopted for effecting repair or rectification of defect or modification of aircraft as the case may be.

8.6. When the C of A of an aircraft is suspended or deemed to have been ~~be~~ suspended, BCAA may, upon an application made by the operator/owner and subject to such requirements as specified by BCAA, having regard to the safety of the aircraft and persons thereon permit the aircraft to be ferry flown to a place without passengers on board where the maintenance required to remove the suspension of C of A can be performed.

8.7. The owner/operator shall submit such an aircraft during repair, modification, overhaul, or rectification of defect to BCAA for carrying out inspection at such stages as considered necessary.

9. REVALIDATION/ REVOCATION OF A SUSPENDED C OF A

In case, the C of A is under suspension / deemed suspension due to extensive damage to an aircraft or due any other reason , the C of A shall be revalidated/revoked, subject to the completion of the required repair/ modification/ maintenance action and a satisfactory test flight (if required). The test flight (where required) shall be conducted based on the special flight permit issued by BCAA and subject to the conditions stated in the special flight permit.

The suspended / deemed suspended C of A may be revalidated from the date of satisfactory document review and physical survey.

10. RIGHT TO REFUSE C OF A

The BCAA reserves the right to refuse Certificate of Airworthiness to an aircraft where reasonable doubt exists regarding its airworthiness or where required document(s) have not been made available or false information has been furnished. The BCAA may withhold the issue of C of A, if the aircraft is known or suspected to have features, which may jeopardize safety or airworthiness of the aircraft.

11. RIGHT TO CANCEL C OF A

BCAA reserves the right to cancel Certificate of Airworthiness if it is observed that the Certificate of Airworthiness has been obtained by false/fraudulent means.

12. PREROGATIVE OF BCAA

Notwithstanding the above, the BCAA may require the owner / operator to comply with additional requirements prior to issue / revalidation of the C of A of the aircraft to ensure its continued airworthiness and safe operations.

13. RENEWAL OF AN EXPIRED C OF A

The expired C of A of an aircraft may be renewed for a period of one year from the previous expiration date provided that the aircraft remained in a controlled environment and C of A of the aircraft is neither suspended nor cancelled in view of the disqualification criteria mentioned in Para 8 above.

14. CHARGES

The charges / fee shall be levied in accordance with the Schedule of Charges – CAP-18. In addition, the Operator/Owner of the aircraft shall also meet full travel expenses for the BCAA representatives undertaking aircraft inspection(s) for the C of R & C of A process required outside the Kingdom of Bahrain as per policy in vogue.

15. ISSUE OF DUPLICATE CERTIFICATE OF AIRWORTHINESS

15.1 Where a certificate has been lost the owner may apply to BCAA for the issue of a duplicate certificate with an affidavit / a copy of the lost report filed with the security department for the loss and the prescribed fee.

15.2 Where a certificate has been mutilated, the owner may apply for issue of a duplicate certificate to the BCAA with the mutilated certificate and the prescribed fee.

16. RECORD KEEPING

The Operator and BCAA will maintain records of all documents generated and received. It may be ensured that all related records are maintained in chronological manner and all the pages are appropriately numbered. Traceability of all records should be ensured for future reference.

The following records must be available in the relevant aircraft folder:

(i) Copies of the following:

a) Certificate of Registration (C of R)

b) Certificate of Airworthiness (C of A)

c) Export Certificate of Airworthiness

d) Type Certificate and Data Sheet (TCDS)

e) Aircraft Insurance Certificate

f) Customized Weight and Balance Report giving the Empty Weight and Center of Gravity details.

(ii) Records relating to applications and supporting documents for the certificate of airworthiness.

a) Application for issue / renewal of C of A (**ALD/AIR/F005**).

b) Logbooks extracts as necessary (Airframe, Engine & APU / Technical Logbooks)

c) Reviewed & finalized documents in support of Airworthiness review required in accordance with ANTR M, ANTR M.A.710, M.A.901(as applicable).

d) Airworthiness Review recommendation after having completed the review and physical survey of the aircraft in accordance with M.A.710 & M. A.901. The checklist used for the review report (Appendix to CAME Para 5.3 of Appendix to AMC1 ANTR M.A.704 "Anybody's" Continuing Airworthiness Management Exposition) & physical survey (Part of **Form ALD/AIR/F006**).

e) Flight Test Report (Performance Assurance) or continuous flight performance evaluation assessment certificate from Operations department of the aircraft operator / CAMO. Also the certificate issued by the CAMO / Responsible person of the Operations department stating that the aircraft performance is well within the acceptable operating limits and did not deteriorate

f) Dent & Buckle & Repair Chart with its update and related documents supporting its effect on additional maintenance requirements, weight & Balance and exceedance of threshold limits.

g) Weight growth monitoring system documents with its update and its effect on weight & balance amendments.

h) copy of the List of Passenger Amenities (LOPA) indicating the current status of all amenities / equipment related to safety of crew & passenger.

i) documents, work package, certification details for having assembled the aircraft in accordance with the manufacturer's procedures, in case the aircraft was brought dismantled.

j) and any other documents necessitated by BCAA to establish continued airworthiness of the aircraft.

CIVIL AVIATION PUBLICATIONS

APPENDIX IIA.1

Quick Reference Checklist for document submission against M.A.710 & 901 as referred under Para 5(g) to this Section II.

Type and list of documents posibly required by BCAA for the Certificate of Airworthiness Issue / Reewal process but not limited to-

I. Updated with infoamtion on flight time/landings/engine hours /cycles, maintenance details, replacements, Sb & AD compliance on the logbooks

1. Aircraft Logbook
2. Engines Logbook
3. APU Logbook
4. Radio Station Logbook
5. Propeller Logbook

II. Flight Manual

1. Applicable to the aircraft configuration
2. To the latest revision (cross checked with the publication index published by the manufacturer)
3. Supplemets to the current configuration and they are latest

III. Maintenance details

1. Routine Maintenance compliance in accordance with the latest Approved Aircraft Maintenance Programme
2. The maintenance compliance document giving the details of maintenance cycle, workorder details & compliance dates & its due dates. Details of deferred maintenance if any and its authority for deferrement.

IV. Defect & Rectification records

1. Records of defects and its rectifcation since previous C of A renewal.
2. Records of Deferred defects / rectifications
3. Records of MEL invoke / revoke details and extensions if any beyond the permited time limits along with the authority for such extension.

V. Airworthiness Directive / SB compliance records

1. The record shall contain, AD / SB No., Title, Subject in brief, Applicability, Effective from, One time or Repeat, Date of Compliance if applicable and one time, Compliance due dates if repetitive, cross reference to the maintenance programme requirement if any of the AD / SB compliance monitored through such programme, Remarks, etc.

VI. Modification & Repairs records

1. The record shall contain the details of modification & repair carried out indicating minor or major and giving reference to the authorisations /approved documents / approval in this regard.

VII. List of life limited components / Life-limited parts and time-controlled components.

1. The record shall contain the details of List of life limited components / Life-limited parts and time-controlled components currently installed on aircraft, giving installation information, AD / SB compliance status and next due date / hours / cycles for replacements / maintenance etc.

VIII. Maitenance Release data

1. Record of Maintenance release documents / CRS issued.

IX. Weight & Balance document

1. Current weight & balance document shall reflect the present configuration of the aircraft and is valid
2. Record of Weight Growth Monitoring, giving details of weighment dates, next weigment due dates, effect of weight shift/CG shift due to addition or deletion of any items / equipments and/or AD/SB/STC compliance, modification/repairs if any etc.
3. Approved Weight & Balance documents (Is the data conforms with the data / limits on the load & trim sheet presently used).

X. Aircraft configuration document incomparision to the Type Design / TCDS.

XI. Document conforming compliance to the BCAA Advisory Circulars / Mandates.

XII. Approved MEL and its current status.

XIII. Consolidated list / document for mandatory interior & exterior markings / placards on the aircraft and evidence for having verified by CAMO. Eevidence can be a comprehensive checklist / documet prepared by CAMO/Operator covering all interior & exterior markings / placards as required by aircraft manufacturer / ANTR.

XIV. Summary of MORs & closure action reports related to the aircraft under review.

XV. Additional documents / work packages / details as required by BCAA

XVI. Airworthiness Review report / Recommendation from the authorised / designates ARC staff accompined with the document and physical survey checklist.

APPENDIX IIA.2

Quick Reference Checklist for Instrument & Equipment referred against Subpart-K, ANTR OPS 1 and the Section II of the checklist at Appendix IIA.2

Instrument and Equipment in accordance with TCDS and ANTR requirement required to be installed on aircraft.

Caution:	**This is purely a quick reference checklist and may not be a comprehensive requirement. The installation shall meet the specific stipulation under the respective requirements of ANTR OPS – 1.**

I. General:

(1) Spare fuses available for use in flight equal to at least 10% of the number of fuses of each rating or three of each rating whichever is the greater (ANTR OPS 1.635);
(2) An independent portable light (ANTR OPS 1.640);

(a) For flight by day:

(1) Anti-collision light system;
(2) Lighting supplied from the aeroplane's electrical system to provide adequate illumination for all instruments and equipment essential to the safe operation of the aeroplane;
(3) Lighting supplied from the aeroplane's electrical system to provide illumination in all passenger compartments; and
(4) An independent portable light for each required crew member readily accessible to crew members when seated at their designated station.

(b) For flight by night, in addition to equipment specified in paragraph (a) above:

(1) Navigation/position lights; and
(2) Two landing lights or a single light having two separately energised filaments; and
(3) Lights to conform with the International regulations for preventing collisions at sea if the aeroplane is a Seaplane or an Amphibian.

II. **Windshield wipers (ANTR OPS 1.645) -** at each pilot station with a windshield wiper or equivalent means to maintain a clear portion of the windshield during precipitation.

III. **Day VFR operations – Flight and navigational instruments and associated equipment (ANTR OPS 1.650)**

(a) A magnetic compass (The means of measuring and displaying magnetic direction should be a magnetic compass or equivalent);

(b) An accurate timepiece showing the time in hours, minutes, and seconds with a sweep-second pointer or digital presentation;

(c) A sensitive pressure altimeter calibrated in feet with a sub-scale setting, calibrated in hectopascals/millibars, adjustable for any barometric pressure likely to be set during flight;

(d) An airspeed indicator calibrated in knots; (Each airspeed indicating system must be equipped with a heated pitot tube or equivalent means for preventing malfunction due to either condensation or icing)

(e) A vertical speed indicator/a rate-of-climb and descent indicator;

(f) A turn and slip indicator, or a turn co-ordinator incorporating a slip indicator;

(g) An attitude indicator;

(h) A stabilised heading/direction indicator;

Note: (f), (g) & (h) may be replaced by either a turn and slip indicator, or a turn co-ordinator incorporating a slip indicator, or both an attitude indicator and a slip indicator The requirements of (f), (g) and (h) may be met by combinations of instruments or by integrated flight director systems provided that the safeguards against total failure, inherent in the three separate instruments, are retained.

(i) A means of indicating in the flight crew compartment the outside air temperature calibrated in degrees Celsius

(j) Whenever two pilots are required the second pilot's station shall have separate instruments as follows:
(1) A sensitive pressure altimeter calibrated in feet with a sub-scale setting calibrated in hectopascals/millibars, adjustable for any barometric pressure likely to be set during flight;
Note: Neither three-pointer nor drum-pointer altimeters satisfy the requirement in.
(2) An airspeed indicator calibrated in knots; (Each airspeed indicating system must be equipped with a heated pitot tube or equivalent means for preventing malfunction due to either condensation or icing)
(3) A vertical speed indicator;
(4) A turn and slip indicator, or a turn co-ordinator incorporating a slip indicator;
(5) An attitude indicator; and
(6) A stabilised direction indicator.

Note: (4), (5) & (6) may be replaced by either a turn and slip indicator, or a turn co-ordinator incorporating a slip indicator, or both an attitude indicator and a slip indicator

(k) Each airspeed indicating system must be equipped with a heated pitot tube or equivalent means for preventing malfunction due to either condensation or icing.

(l) Whenever duplicate instruments are required, the requirement embraces separate displays for each pilot and separate selectors or other associated equipment where appropriate.

(m) All aeroplanes must be equipped with means for indicating when power is not adequately supplied to the required flight instruments; and

(n) All aeroplanes with compressibility limitations not otherwise indicated by the required airspeed indicators shall be equipped with a Mach number indicator at each pilot's station.

Note: This does not preclude the use of the airspeed indicator to derive Mach number for ATS purposes.

(o) A headset with boom microphone or equivalent for each flight crew member on flight deck duty

IV. IFR or night operations – Flight and navigational instruments and associated equipment (ANTR OPS 1.652)

(a) A magnetic compass (The means of measuring and displaying magnetic direction should be a magnetic compass or equivalent);

(b) An accurate time-piece showing the time in hours, minutes and seconds, with a sweep-second pointer or digital presentation;

(c) Two sensitive pressure altimeters calibrated in feet, with counter drum-pointer or equivalent presentation; with sub-scale settings, calibrated in hectopascals/millibars, adjustable for any barometric pressure likely to be set during flight.
Note: Neither three-pointer nor drum-pointer altimeters satisfy the requirement in.

(d) An airspeed indicating system with heated pitot tube or equivalent means for preventing malfunctioning due to either condensation or icing including a warning indication of pitot heater failure.

(e) A vertical speed indicator/a rate-of-climb and descent indicator;

(f) A turn and slip indicator;

(g) An attitude indicator;

(h) A stabilised heading/direction indicator (directional gyroscope);

Note: The requirements of (f), (g) and (h) may be met by combinations of instruments or by integrated flight director systems provided that the safeguards against total failure, inherent in the three separate instruments, are retained.

(i) A means of indicating whether the power supply to the gyroscopic instrument is adequate;

(j) A means of indicating in the flight crew compartment the outside air temperature calibrated in degrees Celsius

(k) Two independent static pressure systems,

(l) Whenever two pilots are required the second pilot's station shall have separate instruments as follows:

(1) Two sensitive pressure altimeters calibrated in feet, with counter drum-pointer or equivalent presentation; with sub-scale settings, calibrated in hectopascals/millibars, adjustable for any barometric pressure likely to be set during flight.

Note: Neither three-pointer nor drum-pointer altimeters satisfy the requirement in.

(2) An airspeed indicating system with heated pitot tube or equivalent means for preventing malfunctioning due to either condensation or icing including a warning indication of pitot heater failure.

(3) A vertical speed indicator;

(4) A turn and slip indicator;

(5) An attitude indicator; (Where the standby attitude indicator has its own dedicated power supply there shall be an associated indication, either on the instrument or on the instrument panel, when this supply is in use) and

(6) A stabilised direction indicator.

(m) an additional, standby, attitude indicator (artificial horizon), capable of being used from either pilot's station, that:

(1) Is powered continuously during normal operation and, after a total failure of the normal electrical generating system is powered from a source independent of the normal electrical generating system;

(2) Provides reliable operation for a minimum of 30 minutes after total failure of the normal electrical generating system, taking into account other loads on the emergency power supply and operational procedures;

(3) Operates independently of any other attitude indicating system;

(4) Is operative automatically after total failure of the normal electrical generating system; and

(5) Is appropriately illuminated during all phases of operation.

(n) A chart holder in an easily readable position which can be illuminated for night operations.

(o) If the standby attitude instrument system is certificated according to CS 25 or equivalent, the turn and slip indicators may be replaced by slip indicators.

(p) Whenever duplicate instruments are required, the requirement embraces separate displays for each pilot and separate selectors or other associated equipment where appropriate;

(q) All aeroplanes must be equipped with means for indicating when power is not adequately supplied to the required flight instruments; and

(r) All aeroplanes with compressibility limitations not otherwise indicated by the required airspeed indicators shall be equipped with a Mach number indicator at each pilot's station.

Note: This does not preclude the use of the airspeed indicator to derive Mach number for ATS purposes.

(t) The operator shall not conduct IFR or night operations unless the aeroplane is equipped with a headset with boom microphone or equivalent for each flight crew member on flight deck duty and a transmit button on the control wheel for each required pilot. (See IEM OPS 1.650(p)/1.652(s).)

(u) Notwithstanding the ANTR OPS 1.430(b) to (d), where aeroplanes are equipped with automatic landing systems, HUD or equivalent displays, EVS, SVS or CVS, or any combination of those systems into a hybrid system, the use of such systems for the safe operation of an aeroplane shall be approved in accordance with the criteria stipulated under ANTR OPS 1.785 by the BCAA. In approving the operational use of automatic landing systems, a HUD or equivalent displays, EVS, SVS or CVS, the BCAA shall ensure that:

(1) the equipment meets the appropriate airworthiness certification requirements;

(2) the operator has carried out a safety risk assessment of the operations supported by the automatic landing systems, HUD or equivalent displays, EVS, SVS or CVS;

(3) the operator has established and documented the procedures for the use of, and training requirements for, automatic landing systems, a HUD or equivalent displays, EVS, SVS or CVS.

(v) Such additional instruments or equipment as may be prescribed by BCAA.

V. Additional equipment for single pilot operation under IFR or at night (ANTR OPS 1.655)

(a) a serviceable autopilot that has at least altitude hold and heading select modes;
(b) a headset with a boom microphone or equivalent; and
(c) means of displaying charts that enables them to be readable in all ambient light conditions; and
(d) Operations manual cover these requirements and approved by BCAA.

VI. Altitude alerting system (ANTR OPS 1.660)

(1) Alerting the flight crew upon approaching a preselected altitude; and

(2) Alerting the flight crew by at least an aural signal, when deviating from a preselected altitude,

VII. Ground proximity warning system and terrain awareness warning system (ANTR OPS 1.665)

(a) a ground proximity warning system which has a forward-looking terrain avoidance function.

(b) The ground proximity warning system must automatically provide, a timely and distinctive warning to the flight crew when the aeroplane is in potentially hazardous proximity to the earth's surface:

(1) excessive sink / descent rate,
(2) unsafe terrain clearance / excessive terrain closure rate,,
(3) excessive altitude loss after take-off or go-around,
(4) unsafe terrain clearance while not in landing configuration;
(i) gear not locked down;
(ii) flaps not in a landing position; and
(5) excessive descent below the instrument glide path.

(c) a ground proximity warning system which provides warning (take-off mass of 5700 kg or less and authorized to carry more than five but not more than nine passengers):

(1) on excessive descent rate;
(2) on excessive altitude loss after take-off or go-around and
(3) of unsafe terrain clearance and
(4) Forward-looking terrain avoidance function.

(d) a ground proximity warning system which provides the warnings (All piston-engined aeroplanes of a maximum certificated take-off mass in excess of 5 700 kg or authorized to carry more than nine passengers)

(1) on excessive descent rate;
(2) on excessive altitude loss after take-off or go-around and
(3) of unsafe terrain clearance and
(4) Forward-looking terrain avoidance function.

(e) the timely distribution and update of current terrain and obstacle data to the ground proximity warning system.

VIII. Airborne Collision Avoidance System (ANTR OPS 1.668)

(a) an airborne collision avoidance system -ACAS II (All turbine-engined aeroplanes of a maximum certificated take-off mass in excess of 5 700 kg or authorised to carry more than 19 passengers) and shall operate in accordance with the relevant provisions of ICAO Annex 10, Volume IV.

IX. Airborne weather radar equipment and Windshear warning System (ANTR OPS 1.670)

(a) airborne weather radar
[(1) A pressurised aeroplane; or (2) An unpressurised aeroplane which has a maximum certificated take-off mass of more than 5700 kg; or (3) An unpressurised aeroplane having a maximum approved passenger seating configuration of more than 9 seats after 1 April 1999, whenever such an aeroplane is being operated at night or in instrument meteorological conditions in areas where thunderstorms or other potentially hazardous weather conditions (windshear), regarded as detectable with airborne weather radar, may be expected to exist along the route].

(b) airborne weather radar equipment
[For propeller driven pressurised aeroplanes having a maximum certificated take-off mass not exceeding 5700 kg with a maximum approved passenger seating configuration not exceeding 9 seats, capable of detecting thunderstorms and other potentially hazardous weather conditions (windshear), regarded as detectable with airborne weather radar equipment, subject to approval by the BCAA].

(c) a forward-looking wind shear warning system
[All turbo-jet aeroplanes of a maximum certificated take-off mass in excess of 5700 kg or authorized to carry more than nine passengers capable of; (1) Providing the pilot with a timely aural and visual warning of wind shear ahead of the aircraft, and the information required to permit the pilot to safely commence and continue a missed approach or go-around or to execute an escape manoeuvre if necessary. (2) Providing an indication to the pilot when the limits specified for the certification of automatic landing equipment are being approached, when such equipment is in use].

X. **Equipment for operations in icing conditions (ANTR OPS 1.675)**

(a) suitable de-icing and/or anti-icing devices to operate in icing conditions.

(b) a means to illuminate or detect the formation of ice. Any illumination that is used must be of a type that will not cause glare or reflection that would handicap crew members in the performance of their duties.

XI. Cosmic Radiation Detection Equipment (ANTR OPS 1.680)

(a) an instrument to measure and indicate continuously the dose rate of total cosmic radiation being received [(i.e. the total of ionizing and neutron radiation of galactic and solar origin) and the cumulative dose on each flight, (aeroplane above 15000 m (49000 ft)] and

(b) A system of on-board quarterly radiation sampling acceptable to the BCAA is established.

(c) The equipment is calibrated on the basis of assumptions / standards and agencies acceptable to the BCAA.

XI. Flight Crew Interphone System (ANTR OPS 1.685)

a flight crew interphone system, including headsets and microphones, not of a handheld type, for use by all members of the flight crew.

XII. Crew Member Interphone System (ANTR OPS 1.690)

(a) a crew member interphone system. (an aeroplane with a maximum certificated take-off mass exceeding 15 000 kg or having a maximum approved passenger seating configuration of more than 19)

(b) The crew member interphone system required by this paragraph must:

(1) Operate independently of the public address system except for handsets, headsets, microphones, selector switches and signalling devices;

(2) Provide a means of two-way communication between the flight crew compartment and:
(i) Each passenger compartment;
(ii) Each galley located other than on a passenger deck level; and
(ii) Each remote crew compartment that is not on the passenger deck and is not easily accessible from a passenger compartment;

(3) Be readily accessible for use from each of the required flight crew stations in the flight crew compartment;

(4) Be readily accessible for use at required cabin crew member stations close to each separate or pair of floor level emergency exits;

(5) Have an alerting system incorporating aural or visual signals for use by flight crew members to alert the cabin crew and for use by cabin crew members to alert the flight crew;

(6) Have a means for the recipient of a call to determine whether it is a normal call or an emergency call and

(7) Provide on the ground a means of two-way communication between ground personnel and at least two flight crew members.

XIII. Public Address System (ANTR OPS 1.695)

(a) a public address system (aeroplane with a maximum approved passenger seating configuration of more than 19)

(b) The public address system must:

(1) Operate independently of the interphone systems except for handsets, headsets, microphones, selector switches and signalling devices;

(2) Be readily accessible for immediate use from each required flight crew member station;

(3) For each required floor level passenger emergency exit which has an adjacent cabin crew seat, have a microphone which is readily accessible to the seated cabin crew member, except that one microphone may serve more than one exit, provided the proximity of the exits allows unassisted verbal communication between seated cabin crew members;

(4) Be capable of operation within 10 seconds by a cabin crew member at each of those stations in the compartment from which its use is accessible; and

(5) Be audible and intelligible at all passenger seats, toilets and cabin crew seats and work stations.

XIV. Flight Recorders - General (ANTR OPS 1.700)

(a) Crash protected flight recorders comprise one or more of the following systems: a flight data recorder (FDR), a cockpit voice recorder (CVR), an airborne image recorder (AIR) and/or a data link recorder (DLR). Image and data link information may be recorded on either the CVR or the FDR.

(b) Light weight flight recorders comprise one or more of the following systems: an aircraft data recording system (ADRS), a cockpit audio recording system (CARS), an airborne image recording system (AIRS) and/or a data link recording system (DLRS). Image and data link information may be recorded on either the CARS or the ADRS.

(c) (1) Non-deployable flight recorder containers shall:
(i) be painted a distinctive orange colour;
(ii) carry reflective material to facilitate their location; and
(iii) have securely attached an automatically activated underwater locating device operating at a frequency of 37.5kHz and, by no later than 1 January 2018, be capable of operating for a minimum of 90 days.

(2) Automatic deployable flight recorder containers shall:

(i) be painted a distinctive orange colour, however the surface visible from outside the aircraft may be of another colour;
(ii) carry reflective material to facilitate their location; and
(iii) have an integrated automatically activated ELT.

(3) The crash-protected flight recorders shall be installed so that:

(i) the probability of damage to the recordings is minimized;
(ii) they receive electrical power from a bus that provides the maximum reliability for operation of the flight recorders without jeopardizing service to essential or emergency loads;
(iii) the light weight flight recorders shall be connected to a power source having the characteristics which ensure proper and reliable recording in the operational environment.
(iv) there is an aural or visual means for pre-flight checking that the flight recorder systems are operating properly; and
(v) if the flight recorder systems have an erasure device, the installation shall be designed to prevent operation of the device during flight time or crash impact; and
(v) for aeroplanes for which the individual certificate of airworthiness is first issued on or after 1 January 2023, a flight crew-operated erase function shall be provided on the flight deck which, when activated, modifies the recording of a CVR and AIR so that it cannot be retrieved using normal replay or copying techniques. The installation shall be designed to prevent activation during flight. In addition, the probability of an inadvertent activation of an erase function during an accident shall also be minimized.

Note: The erase function is intended to prevent access to CVR and AIR recordings by normal replay or copying means, but would not prevent accident investigation authorities access to such recordings by specialized replay or copying techniques.

(d) Operation

(1) Flight recorders shall not be switched off during flight time.

(2) A provision exists to preserve cockpit voice recorder records, cockpit voice recorder shall be deactivated upon completion of flight time following an accident or incident

(e) Combination Recorders

(1) two combination recorders (FDR/CVR)

[(All aeroplanes of a maximum certificated take-off mass of over 5700kg for which the application for type certification is submitted to a Contracting State on or after 1 January 2016 and which are required to be equipped with both a CVR and an FDR, (2) All aeroplanes of a maximum certificated take-off mass of over 15000 kg for which the application for type certification is submitted to a Contracting State on or after 1 January 2016 and which are required to be equipped with both a CVR and an FDR, shall be equipped with two combination recorders (FDR/CVR). One recorder shall be located as close to the cockpit as practicable and the other recorder located as far aft as practicable, (3) All aeroplanes of a maximum certificated take-off mass over 5700kg, required to be equipped with an FDR and a CVR, may alternatively be equipped with two combination recorders (FDR/CVR, (4) All multi-engined turbine-

powered aeroplanes of a maximum certificated take-off mass of 5700kg or less, required to be equipped with an FDR and/or a CVR, may alternatively be equipped with one combination recorder (FDR/CVR)].

Note: The requirement of combination recorder may be satisfied by equipping the aeroplanes with two combination recorders (one forward and one aft) or separate devices.

XV. Flight Recorder Data Recovery (ANTR OPS 1.702)

A Flight Data recovery system to recover flight recorder data and make it available in a timely manner

XVI. ANTR OPS 1.705 Flight Data Recorders (FDR) and Aircraft Data Recording Systems (ADRS)

(a) FDR / ADRS in accordance with the ANTR OPS 1.705. Refer to ANTR OPS 1.705 for type, specification, requirements of recording capabilities & duration of recording.

XVII. Cockpit Voice Recorders and Cockpit Audio Recording Systems (ANTR OPS 1.710)

(a) a CVR / CARS in accordance with the ANTR OPS 1.710. Refer to ANTR OPS 1.710 for type, specification, requirements of recording capabilities & duration of recording.

XVIII. Data Link Recorders (ANTR OPS 1.715)

(a) DLR in accordance with ANTR OPS 1.715. Refer to ANTR OPS 1.715 for type, specification, requirements of recording capabilities & duration of recording.

XIX. Seats, seat safety belts, harnesses and child restraint devices (ANTR OPS 1.730)

(a) A seat or berth for each person who is aged two years or more;

(b) A safety belt, with or without a diagonal shoulder strap, or a safety harness for use in each passenger seat for each passenger aged 2 years or more;

(c) A child restraint device, for each infant

(d) a safety belt with shoulder harness for each flight crew seat and for any seat alongside a pilot's seat incorporating a device which will automatically restrain the occupant's torso in the event of rapid deceleration;

Note1: The safety harness for each pilot seat should incorporate a device to prevent a suddenly incapacitated pilot from interfering with the flight controls.

Note 2: Safety harness includes shoulder straps and a seat belt which may be used independently.

(e) a safety belt with shoulder harness for each cabin crew seat and observer's seats. However, this requirement does not preclude use of passenger seats by cabin crew members carried in excess of the required cabin crew complement; and

(f) Seats for cabin crew members located near required floor level emergency exits except that, if the emergency evacuation of passengers would be enhanced by seating cabin crew members elsewhere, other locations are acceptable. The seats shall be forward or rearward facing within 15° of the longitudinal axis of the aeroplane.

(g) All safety belts with shoulder harness must have a single point release.

Note: A safety belt with a diagonal shoulder strap for aeroplanes with a maximum certificated take-off mass not exceeding 5 700 kg or a safety belt for aeroplanes with a maximum certificated take-off mass not exceeding 2 730 kg may be permitted in place of a safety belt with shoulder harness if it is not reasonably practicable to fit the latter.

(h) Child restraint devices referred to in ANTR OPS 1.730(a)(3).

XX. Fasten Seat belt and No Smoking signs (ANTR OPS 1.731)

A means of indicating to all passengers and cabin crew when seat belts shall be fastened and when smoking is not allowed.

XXI. Internal doors and curtains (ANTR OPS 1.735)

(a) In an aeroplane with a maximum approved passenger seating configuration of more than 19 passengers, a door between the passenger compartment and the flight deck compartment with a placard 'crew only' and a locking means to prevent passengers from opening it without the permission of a member of the flight crew;

(b) A means for opening each door that separates a passenger compartment from another compartment that has emergency exit provisions. The means for opening must be readily accessible;

(c) If it is necessary to pass through a doorway or curtain separating the passenger cabin from other areas to reach any required emergency exit from any passenger seat, the door or curtain must have a means to secure it in the open position;

(d) A placard on each internal door or adjacent to a curtain that is the means of access to a passenger emergency exit, to indicate that it must be secured open during take off and landing; and

(e) A means for any member of the crew to unlock any door that is normally accessible to passengers and that can be locked by passengers.

XXII. Placards (ANTR OPS 1.740)

(a) Every exit from the aircraft shall be marked, either with the words "Exit" or "Emergency Exit' in both English and Arabic script, or with universal exit signs.

(b) Every exit from the aircraft shall be marked, either with instructions in English and Arabic, or with universal exit signs to indicate the correct method of opening the exit.

(c) The markings shall be placed on or near the inside surface of the door or other closure of the exit and, if it is operable, from the outside of the aircraft on or near the exterior surface.

(d) Every safety related placard intended to be used by passengers and external emergency evacuation crew shall be in both Arabic and English scripts or with universal symbolic signs. Bilingual placards shall meet the applicable airworthiness requirements.

(e) The location instructions for all emergency equipment required to be located by a passenger shall be in English and Arabic or with universal symbolic signs.

XXIII. ANTR OPS 1.745 First-Aid Kits

Number of passenger seats installed	Number of First-Aid Kits required
0 to 100	1
101 to 200	2
201 to 300	3
301 to 400	4
401 to 500	5
More than 500	6

XXIV. Universal Precaution Kits (ANTR OPS 1.750)

a. For routine operations, one or two universal precaution kits should be carried on aircraft that are required to operate with at least one cabin crew member.

b. The universal precaution kits should be distributed as evenly as practicable throughout the passenger cabins. They should be readily accessible to cabin crew members

XXV. Medical Kit (ANTR OPS 1.755)

(a) an aeroplane with a maximum approved passenger seating configuration of more than 100 seats is equipped with a medical kit if any point on the planned route is more than two hours flying time (at normal cruising speed) for the use of medical doctors or other qualified persons in treating in-flight medical emergencies.

(b) medical kit must be dust and moisture proof and shall be carried under security conditions and stored in an appropriate secured location, where practicable, on the flight deck; and

XXVI. First-Aid Oxygen (ANTR OPS 1.760)

(a) a supply of undiluted oxygen for passengers who, for physiological reasons, might require oxygen following a cabin depressurisation (pressurised aeroplane, above 25000 ft, when a cabin crew member is required to be carried)

XXVII. Electronic Flight Bags (EFBs) (ANTR OPS 1.765)

(a) EFB equipment if approved by BCAA.

XXVIII. Supplemental Oxygen – Pressurised Aeroplanes (ANTR OPS 1.770)

Approximate altitudes in the Standard Atmosphere corresponding to the values of absolute pressure used in the text are as follows:

Absolute pressure	Metres	Feet
700 hPa	*3 000*	*10 000*
620 hPa	*4 000*	*13 000*
376 hpa	*7 600*	*25 000*

(a) A flight to be operated at flight altitudes at which the atmospheric pressure in personnel compartments will be less than 700 hPa shall not be commenced unless sufficient stored breathing oxygen is carried to supply:

(1) all crew members and 10 per cent of the passengers for any period in excess of 30 minutes that the pressure in compartments occupied by them will be between 700 hPa and 620 hPa; and

(2) the crew and passengers for any period that the atmospheric pressure in compartments occupied by them will be less than 620 hPa.

(b) A flight to be operated with a pressurized aeroplane shall not be commenced unless a sufficient quantity of stored breathing oxygen is carried to supply all the crew members and passengers, as is appropriate to the circumstances of the flight being undertaken, in the event of loss of pressurization, for any period that the atmospheric pressure in any compartment occupied by them would be less than 700 hPa. In addition, when an aeroplane is operated at flight altitudes at which the atmospheric pressure is less than 376 hPa, or which, if operated at flight altitudes at which the atmospheric pressure is more than 376 hPa and cannot descend safely within four minutes to a flight altitude at which the atmospheric pressure is equal to 620 hPa, there shall be no less than a 10-minute supply for the occupants of the passenger compartment.

(c) The requirement of equipment and oxygen are given in Appendix 1 to this ANTR OPS 1.770.

(d) Requirement for determination of oxygen, quick donning mask use, without automatic deployable dispensing unit and aeroplane not certified to operate above 25000 ft are given in AMC to OPS 1.770.

XXIX. Safeguarding of cabin crew and passengers in pressurized aeroplanes in the event of loss of pressurization (ANTR OPS 1.772)

(a) Cabin crew shall be safeguarded so as to ensure reasonable probability of their retaining consciousness during any emergency descent which may be necessary in the event of loss of pressurization and, in addition, they should have such means of protection as will enable them to administer first aid to passengers during stabilized flight following the emergency.

(b) Passengers shall be safeguarded by such devices or operational procedures as will ensure reasonable probability of their surviving the effects of hypoxia in the event of loss of pressurization.

Note: It is not envisaged that cabin crew will always be able to provide assistance to passengers during emergency descent procedures which may be required in the event of loss of pressurization.

XXX. Supplemental oxygen – Non-pressurised aeroplanes (ANTR OPS 1.775)

(a) General

(1) capable of storing and dispensing the oxygen supplies required at altitudes above 10000 ft.

(2) The amount of supplemental oxygen for sustenance requirement procedures established for each operation in the Operations Manual

(b) Oxygen supply requirements

(1) *Flight crew / Cabin crew members.* Each member of the flight crew on flight deck duty shall be supplied with supplemental oxygen in accordance with Appendix 1 to ANTR OPS 1.775.

XXXI. Crew Protective Breathing Equipment (ANTR OPS 1.780)

(a) It has equipment to protect the eyes, nose and mouth of each flight crew member while on flight deck duty and to provide oxygen for a period of not less than 15 minutes. The supply for Protective Breathing Equipment (PBE) may be provided by the supplemental oxygen required by ANTR OPS 1.770(b)(1) or ANTR OPS 1.775(b)(1). In addition, when the flight crew is more than one and a cabin crew member is not carried, portable PBE must be carried to protect the eyes, nose and mouth of one member of the flight crew and to provide breathing gas for a period of not less than 15 minutes; and

(b) It has sufficient portable PBE to protect the eyes, nose and mouth of all required cabin crew members and to provide breathing gas for a period of not less than 15 minutes.

(c) PBE intended for flight crew use must be conveniently located on the flight deck and be easily accessible for immediate use by each required flight crew member at their assigned duty station.

(d) PBE intended for cabin crew use must be installed adjacent to each required cabin crew member duty station.

(e) An additional, easily accessible portable PBE must be provided and located at or adjacent to the hand fire extinguishers required by ANTR OPS 1.790(c) and (d) except that, where the fire extinguisher is located inside a cargo compartment, the PBE must be stowed outside but adjacent to the entrance to that compartment.

(f) PBE while in use must not prevent communication where required by ANTR OPS 1.685, ANTR OPS 1.690, ANTR OPS 1.810 and ANTR OPS 1.850.

XXXII. Head Up Display (HUD) or Equivalent Displays (ANTR OPS 1.785)

Notwithstanding the ANTR OPS 1.430(b) to (d), where aeroplanes are equipped with automatic landing system, a head-up display (HUD) or equivalent displays, enhanced vision systems (EVS), synthetic vision systems (SVS) and/or combined vision systems (CVS) or combination of those systems into a hybrid system, the use of such systems for the safe operation of aeroplane, unless:

(a) An approval has been issued by the BCAA for the operational use of such displays;

(b) The equipment meets the appropriate airworthiness certification requirements;

(c) The operator has carried out a safety risk assessment of the operations supported by the HUD or equivalent displays, EVS, SVS or CVS [Guidance on safety risk assessments is contained in the Safety Management Manual (SMM) (Doc 9859)];

(d) The operator has established and documented the procedures for the use of, and training requirements for, a HUD or equivalent displays, EVS, SVS or CVS

(e) The criteria for the use of such systems for the safe operation of an aeroplane as described in Appendix 1 to ANTR OPS 1.785 HUD, VS or Equivalent is complied with as applicable.

Note: Information regarding automatic landing systems a HUD or equivalent displays, EVS, SVS or CVS is contained in the Manual of All-Weather Operations (Doc 9365).

XXXIII. Hand Fire Extinguishers (ANTR OPS 1.790)

(a) Approved Type of hand fire extinguishers are provided for use in crew, passenger and, as applicable, cargo compartments and galleys.

(b) At least one hand fire extinguisher, containing Halon 1211 (bromochlorodifluoro-methane, CBrCIF2), or equivalent as the extinguishing agent, must be conveniently located on the flight deck for use by the flight crew

(c) At least one hand fire extinguisher must be located in, or readily accessible for use in, each galley not located on the main passenger deck;

(d) At least one readily accessible hand fire extinguisher must be available for use in each Class A or Class B cargo or baggage compartment and in each Class E cargo compartment that is accessible to crew members in flight; and

(e) At least the following number of hand fire extinguishers must be conveniently located to provide adequate availability for use in the passenger compartment(s):

Maximum approved passenger seating configuration	Number of Extinguishers
7 to 30	1
31 to 60	2
61 to 200	3
201 to 300	4
301 to 400	5
401 to 500	6
501 to 600	7
601 or more	8

(f) The fire extinguishers are equally placed / distributed in cabin.

(g) The fire extinguishers positions / locations are clearly marked.

Correlate with the approved LOPA for the number, type and location of the fire extinguishers.

XXXIV. Crash Axes and Crowbars (ANTR OPS 1.795)

(a) one crash axe or crowbar located on the flight deck (Aircraft exceeding 5700Kg MTOW & more than 9 seat approved passenger configuration).

(b) an additional crash axe or crowbar must be carried and located in or near the most rearward galley area (If the maximum approved passenger seating configuration is more than 200. Crash axes and crowbars located in the passenger compartment must not be visible to passengers).

XXXV. Marking of Break-in Points (ANTR OPS 1.800)

Ensure that the break-in points are affixed and supported by appropriate document.

XXXVI. Means for Emergency Evacuation (ANTR OPS 1.805)

(a) Equipment or devices available at each exit, to enable passengers and crew to reach the ground safely in an emergency.

(b) A device to assist all members of the flight crew in descending to reach the ground safely in an emergency.

XXXVII. Megaphones (ANTR OPS 1.810)

(a) Equipped with portable battery-powered megaphones readily accessible for use by crew members during an emergency evacuation (more than 60 Passenger configuration).

(b) With more than one passenger deck, in all cases when the total passenger seating configuration is more than 60, at least 1 megaphone is required in each cabin

For each passenger deck:

Passenger seating configuration	Number of Megaphones Required
1 to 99	1
100 or More	2

XXXVIII. Emergency Lighting (ANTR OPS 1.815)

(a) **A**n emergency lighting system having an independent power supply to facilitate the evacuation of the aeroplane. The emergency lighting system must include. The requirements of sources, area, etc. as per ANTR OPS 1.815.

XXXIX. Emergency Locator Transmitter (ANTR OPS 1.820)

(a) One Automatic ELT / Two ELT of any type (Refer to ANTR OPS 1.820 for specific requirement of type & number)

XXXX. Location of an Aeroplane in Distress (ANTR OPS 1.822)

(a) Autonomous information transmitting system from which, a position can be determined by the operator at least once every minute, when in distress, in accordance with Appendix 1 to ANTR OPS 1.822.

XXXXI. Life Jackets (ANTR OPS 1.825)

(a) One life jacket or equivalent individual flotation device for each person on board, stowed in a position easily accessible from the seat or berth of the person. Life jackets for infants may be substituted by other approved flotation devices.

(b) Each life jacket and equivalent individual flotation device shall be equipped with a means of electric illumination for the purpose of facilitating the location of persons.

XXXXII. Extended Overwater Flights (ANTR OPS 1.830)

(a) Sea Plane

(1) one life jacket, or equivalent individual flotation device, for each person on board, stowed in a position easily accessible from the seat or berth of the person for whose use it is provided with a safety belt or restraint system fastened;

(2) equipment for making the sound signals prescribed in the International Regulations for Preventing Collisions at Sea, where applicable; and

(3) one sea anchor (drogue).

(b) Land Planes

one life jacket or equivalent individual flotation device for each person on board, stowed in a position easily accessible from the seat or berth of the person

(when flying over water and at a distance of more than 93 km (50 NM) away from the shore, in the case of landplanes / when flying en route over water beyond gliding distance from the shore / when taking off or landing at an aerodrome where, in the opinion of the State of the Operator, the take-off or approach path is so disposed over water that in the event of a mishap there would be a likelihood of a ditching)

(c) All aeroplanes on long-range over-water flights

In addition to the equipment prescribed in Para (a) & (b) above, whichever is applicable, the following equipment shall be installed in all aeroplanes when used over routes on which the aeroplane may be over water and at more than a distance corresponding to 120 minutes at cruising speed or 740 km (400 NM), whichever is the lesser, away from land suitable for making an emergency landing in the case of aircraft operated in accordance with (b)(1)(i) or (b)(1)(ii), and 30 minutes or 185 km (100 NM), whichever is the lesser, for all other aeroplanes:

(1) life-saving rafts in sufficient numbers to carry all persons on board, stowed so as to facilitate their ready use in emergency, provided with such life-saving equipment including means of sustaining life as is appropriate to the flight to be undertaken;

(2) a survivor locator light in each life raft.

(3) equipment for making the pyrotechnical distress signals described in ANTR OPS 1.835; and

(4) at least two survival ELTs [ELT(S)]

(5) on all aeroplanes of a maximum certificated take-off mass of over 27 000 kg, a securely attached underwater locating device operating at a frequency of 8.8 kHz., unless. This automatically activated underwater locating device shall operate for a minimum of 30 days and shall not be installed in wings or empennage.

XXXXIII. Survival Equipment (ANTR OPS 1.835)

(a) Designated area identified by the State concerned in which search and rescue would be especially difficult:

(1) Signalling equipment
(to make the pyrotechnical distress signals described in ICAO Annex 2);

(2) At least one ELT(S) capable of transmitting on the distress frequencies
[prescribed in ICAO Annex 10, Volume V, Chapter 2 (Appendix 1 to ANTR OPS 1.820)]; and

(3) Additional survival equipment
[for the route to be flown taking account of the number of persons on board (See AMC OPS 1.835(c))],

(b) The additional equipment specified in sub-paragraph (a)(3) need not be carried when the aeroplane:

(1) Remains within a distance from an area where search and rescue is not especially difficult corresponding to:

(i) 120 minutes at the one engine inoperative cruising speed for aeroplanes capable of continuing the flight to an aerodrome with the critical engine(s) becoming inoperative at any point along the route or planned diversion routes;
or
(ii) 30 minutes at cruising speed for all other aeroplanes,

(2) Remains within a distance no greater distance than that corresponding to 90 minutes at cruising speed from an area suitable for making an emergency landing, for aeroplanes certified in accordance with the applicable airworthiness standard.

XXXXIV. Seaplanes and Amphibians – Miscellaneous Equipment (ANTR OPS 1.840)

(a) The operator shall not operate a seaplane or an amphibian on water unless it is equipped with:

(1) A sea anchor and other equipment necessary to facilitate mooring, anchoring or manoeuvring the aircraft on water, appropriate to its size, weight and handling characteristics; and

(2) Equipment for making the sound signals prescribed in the International Regulations for preventing collisions at sea, where applicable.

XXXXV. Additional Requirements for operations of Single-Engine Turbine-Powered Aeroplanes at Night and/or in Instrument Meteorological Conditions (IMC) (ANTR OPS 1.842)

(a) an engine trend monitoring system, and those aeroplanes for which the individual certificate of airworthiness is first issued on or after 1 January 2005 shall have an automatic trend monitoring.

(b) To minimize the probability of in-flight engine failure, the engine shall be equipped with:

(1) an ignition system that activates automatically, or is capable of being operated manually, for take-off and landing, and during flight, in visible moisture;

(2) a magnetic particle detection or equivalent system that monitors the engine, accessories gearbox, and reduction gearbox, and which includes a flight deck caution indication; and

(3) an emergency engine power control device that permits continuing operation of the engine through a sufficient power range to safely complete the flight in the event of any reasonably probable failure of the fuel control unit.

(c) Single-engine turbine-powered aeroplanes approved to operate at night and/or in IMC shall be equipped with the following systems and equipment intended to ensure continued safe flight and to assist in achieving a safe forced landing after an engine failure, under all allowable operating conditions:

(1) two separate electrical generating systems, each one capable of supplying all probable combinations of continuous in-flight electrical loads for instruments, equipment and systems required at night and/or in IMC;

(2) a radio altimeter;

(3) an emergency electrical supply system of sufficient capacity and endurance, following loss of all generated power, to as a minimum:

(i) maintain the operation of all essential flight instruments, communication and navigation systems during a descent from the maximum certificated altitude in a glide configuration to the completion of a landing;

(ii) lower the flaps and landing gear, if applicable;

(iii) provide power to one pitot heater, which must serve an air speed indicator clearly visible to the pilot;

(iv) provide for operation of the landing light;

(v) provide for one engine restart, if applicable; and

(vi) provide for the operation of the radio altimeter;

(4) two attitude indicators, powered from independent sources;

(5) a means to provide for at least one attempt at engine-start;

(6) airborne weather radar;

(7) a certified area navigation system capable of being programmed with the positions of aerodromes and safe forced landing areas, and providing instantly available track and distance information to those locations;

(8) for passenger operations, passenger seats and mounts which meet dynamically-tested performance standards and which are fitted with a shoulder harness or a safety belt with a diagonal shoulder strap for each passenger seat;

(9) in pressurized aeroplanes, sufficient supplemental oxygen for all occupants for descent following engine failure at the maximum glide performance from the maximum certificated altitude to an altitude at which supplemental oxygen is no longer required;

(10) a landing light that is independent of the landing gear and is capable of adequately illuminating the touchdown area in a night forced landing; and

(11) an engine fire warning system.

XXXXVI. Turbine Aeroplane – Runway Overrun Awareness and Alerting System (ROAAS)

- ANTR OPS 1.787

(1) All turbine-engined aeroplanes of a maximum certificated take-off mass in excess of 5 700 kg, for which the individual certificate of airworthiness is first issued on or after 1 January 2026, shall be equipped with a runway overrun awareness and alerting system (ROAAS)

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SECTION – II B

AIRCRAFT CERTIFICATE OF AIRWORTHINESS FOR EXPORT

I. INTRODUCTION

The Certificate of Airworthiness for export is issued to a complete aircraft indicating that the aircraft meets the requirement of type design and is in a safe condition for flight.

The Certificate of Airworthiness for export usually referred to as "C of A for Export" or “Export C of A” is not a statutory document, either internationally under ICAO, or nationally under the Civil Aviation Law.

The C of A for Export indicates that the aircraft could be issued / renewed with a Certificate of Airworthiness in accordance with the Requirements subject to consideration being given to any Special Requirements/Derogations to Bahrain Civil Aviation Requirements agreed with the importing Civil Aviation Authority.

BCAA may issue an Export Certificate of Airworthiness and such certificate shall be issued only, if the importing state regulations require the need for export C of A. Applicant shall submit the request for the issue of export C of A along with requisite fees as applicable and show the compliance with applicable airworthiness requirements for issue of C of A as stipulated by BCAA including the special requirements of the importing State.

II. REQUIREMENTS

When the aircraft does not meet certain requirements of the importing country, the exporter should obtain a written statement from the regulatory authority of the importing country indicating acceptance of the deviation. This statement should accompany each application for an export Airworthiness approval.

Any additional design requirements considered necessary by the importing State in addition to the requirements of the exporting State (BCAA) to provide a level of safety and environmental quality (including noise) equivalent to what is provided by the importing Country’s certification basis are referred to as special conditions. These additional conditions should be included in the Type Certificate data sheet. When any of the conditions cannot be satisfied, the exporters must obtain a statement from the regulatory authority of the importing country indicating that it will accept the deviation.

If the importing State has any specific certification requirements in place in addition to those adopted or required by the exporting State (BCAA), the importing State may agree that they should be listed as exceptions to the Export Certificate of Airworthiness. Exceptions therefore are a matter of agreement between the States concerned.

The Export C of A shall be granted upon fulfilling the requirements applicable to the renewal of C of A of an aircraft stipulated in Section-II to this CAP.

The C of A for Export does not, by itself, give authority for the aircraft to be flown; such authority may normally be obtained in accordance with (a) or (b):

(a) The Authority responsible for airworthiness in the country in which the aircraft is to be registered (hereinafter referred to as the Responsible Authority) may issue a Certificate of Airworthiness.

(b) The BCAA may (in conjunction with the C of A for Export) issue a Certificate of Airworthiness such as would cover the delivery of the aircraft to its destination.

III. PROCESS FOR ISSUE OF CERTIFICATE OF AIRWORTHINESS FOR EXPORT

1. APPLICATION

The Certificate of Airworthiness for Export is issued for the complete aircraft upon receiving an application (**ALD/AIR/F127**) request from the owner. A third party cannot sign on the owner's behalf without written power of attorney. This application must be submitted to the BCAA. The application must be complete in all respect to process the same without delay.

IDERA form and its supporting documents shall accompany the application for issue of Certificate of Airworthiness for Export (as applicable).

2. DEROGATIONS

Derogations are normally agreed with the importing Authority and the CAA prior to the issue of an Export C of A.

If derogations or special requirements are stated on the C of A for Export, the current C of A must be revoked prior to the issue of the C of A for Export, as the aircraft would no longer qualify for a Bahrain C of A.

3. NO DEROGATIONS

If no derogations or special requirements are stated on the Export C of A, the applicant may retain the current C of A, in which case, the applicant would be advised of the necessity to return the C of A to the CAA following de-registration of the aircraft.

4. LOGBOOK ENTRY

The logbook should be underlined, signed and dated at the last entry to indicate the aircraft hours at the time of issue of C of A for Export.

5. DE-REGISTRATION

Once the C of A for Export is issued, the aircraft can be de-registered. The process requires an application for De-registration of Aircraft (**Form ALD/AIR/F071**) from the owner or his notarised representative.

6. ISSUANCE OF EXPORT C OF A

Certificate of Airworthiness for Export (**Form ALD/AIR/F040**) is used and the following exceptions will be listed on the front of the C of A for Export:

(a) Significant deviations from the Approved build standard.

(b) Derogations from the Bahrain CAA requirements, Additional Requirements, and Special Conditions.

(c) Mandatory modifications and inspections with which compliance has not been shown.

(d) In respect of equipment prescribed in the ANTR;

(1) Such equipment which is fitted, but has not been approved by the CAA.

(2) Equipment appropriate to the certification Category, where this is not fitted.

Note: Any item listed shall be confirmed, in writing, to be acceptable to the Responsible Authority prior to the issue of the C of A for Export.

7. CHARGES

Charges for the issue of a C of A for Export are included under charges for de-registration of an aircraft.

If the cost of the investigation exceeds this figure, the CAA may make a further charge to recover cost especially when functions are performed abroad.

Note: Refer to CAP 18 – Schedule of Charges