DEPARTMENT OF CIVIL AVIATION

MAURITIUS CIVIL AIRWORTHINESS REQUIREMENTS

PART 145
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MCAR-145.1 General

(a) Pursuant to Regulation 22 of the Civil Aviation Regulations, the MCAR-145 prescribes the requirements for the approval of a maintenance organisation. The issue of a maintenance organisation approval shall be dependent upon the organisation demonstrating compliance with the requirements of the MCAR-145 and all other applicable requirements published by the Authority.

(b) No aircraft may fly unless a certificate of release to service has been issued by an organisation for maintenance carried out on the aircraft or an aircraft component intended for fitment to such an aircraft.

(c) No organisation may certify for release to service an aircraft unless approved in accordance with MCAR-145 or accepted in accordance with MCAR-145.10(d). Except where stated otherwise in subparagraph (f), no organisation may maintain such an aircraft unless approved in accordance with this MCAR-145 or working under the quality system of an appropriately approved MCAR-145 approved maintenance organisation or accepted in accordance with MCAR-145.10(d).

(d) No organisation may certify for release to service an aircraft component intended for fitment to an aircraft unless approved in accordance with this MCAR-145 or accepted in accordance with MCAR-145.10(d).

Except where stated otherwise in subparagraph (f), no organisation may maintain such an aircraft component unless approved in accordance with this MCAR-145 or working under the quality system of an appropriately approved MCAR-145 approved maintenance organisation or accepted in accordance with MCAR-145.10(d).

(e) A maintenance organisation approval may be granted for maintenance activity varying from that for an aircraft component to that for a complete aircraft or any combination thereof.

(f) An organisation working under the quality system of either an appropriately approved MCAR-145 maintenance organisation or an organisation accepted in accordance with MCAR-145.10(d) is limited to the work scope permitted by the MCAR-145.65(b) procedures and may not carry out the maintenance of an aircraft or maintenance of a complete engine, engine module or APU.

(g) Notwithstanding sub-paragraph (c), an organisation holding a Line Station Approval (LSA) may also certify for release to service an aircraft in a line maintenance environment located outside Mauritius subject to the limitations specified in that LSA approval.
(h) Notwithstanding sub-paragraph (d), the Authority may permit the use of aircraft components accompanied by an equivalent release document on a Mauritius aircraft subject to conditions notified by the Authority.

**MCAR-145.3**

**Effectivity**

(a) The MCAR-145 is issued in March 2008.

(b) It became effective on 23rd March 2008.

**MCAR-145.5 Definitions**

(a) For the purpose of this MCAR-145, the following definitions shall apply:

‘Accountable manager’ means the manager who has corporate authority for ensuring that all maintenance required by the customer can be financed and carried out to the standard required by the Authority.

‘Aircraft’ means any machine that can derive support in the atmosphere from the reactions of the air other than the reactions of the air against the earth’s surface.

‘Aircraft component’ means any assembly/item/component/part of an aircraft up to and including a complete powerplant and/or any operational/emergency equipment.

‘Approved by the Authority’ means approved by the Authority directly or in accordance with a procedure approved by the Authority.

‘Approved standard’ means a manufacturing/design/maintenance/quality standard approved by the Authority.

‘The Authority’ means the Director of Civil Aviation.

“Certifying staff” means those personnel who are authorised by the approved maintenance organisation in accordance with a procedure acceptable to the Authority to certify aircraft or aircraft components for release to service.

‘Inspection’ means the examination of an aircraft/aircraft component to establish conformity with an approved standard.

‘Location’ means a place from which an organisation carries out activities or wishes to carry out activities for which a MCAR-145 approval is required.

‘Maintenance’ means any one or combination of overhaul, repair, inspection, replacement, modification or defect rectification of an aircraft/aircraft component.
‘Maintenance data’ means any information necessary to ensure that the aircraft or aircraft component can be maintained in a condition such that airworthiness of the aircraft or serviceability of aircraft components, operational and emergency equipment as appropriate, is assured.

‘Maintenance Organisation Exposition’ means the document(s) that contains the material required by MCAR-145.70 to show how the organisation complies with MCAR-145, and is equivalent to the requirements to have an Maintenance Control Manual (MCM) as per ICAO Annex 8 as applicable.

‘Modification’ means the alteration of an aircraft / aircraft component in conformity with an approved standard.

‘Organisation’ means an organisation registered as a legal entity. Such an organisation may conduct business from more than one address and may hold more than one MCAR-145 approval.

‘Overhaul’ means the restoration of an aircraft/aircraft component by inspection and replacement in conformity with an approved standard to extend the operational life.

‘Quality policy’ means the overall intentions and direction of an organisation as regards quality, as approved by the accountable manager.

‘Repair’ means the restoration of an aircraft/aircraft component to a serviceable condition in conformity with an approved standard.

‘MCAR-145 certification authorisation’ means the authorisation issued to certifying staff by the MCAR-145 approved maintenance organisation and which specifies the fact that they may sign MCAR-145.50 certificate of release to service within the limitation stated in such authorisation on behalf of the MCAR-145 maintenance organisation.

MCAR-145.10 Applicability

(a) This MCAR-145 prescribes the requirements for issuing approvals to organisations for the maintenance of:

(1) Mauritius aircraft and aircraft components intended for fitment on a Mauritius aircraft; and

(2) Reserved

(b) This MCAR-145 prescribes the general operating rules for approved maintenance organisations. The approval, when granted, will apply to the whole organisation headed by the accountable manager.
(c) Organisations regardless of their location may only be granted approval if the Authority is satisfied that there is a need for such approval to maintain aircraft/aircraft components and when in compliance with this MCAR-145.

(d) Reserved

MCAR-145.15

Application and Issue

(a) An application for maintenance organisation approval or for the amendment of an existing maintenance organisation approval shall be made in a form and manner prescribed by the Authority and submitted with the required number of copies of the maintenance organisation’s exposition or amendment thereto.

(b) An applicant who meets the requirements of this MCAR-145 and has paid any charges prescribed by the Authority is entitled to a maintenance organisation approval.

(c) The applicant referred to in (a) should be made at least 40 days prior to the start of any proposed maintenance, to enable the Authority plan the mandatory audit.

MCAR-145.20

Extent of Approval

The grant of approval is indicated by the issue of a certificate of approval to the organisation by the Authority. The certificate of approval will specify the extent of approval. The MCAR-145 approved maintenance organisation’s exposition must specify the scope of work deemed to constitute approval.

MCAR-145.21

Display of Certificate

The MCAR-145 approved maintenance organisation shall display the certificate in a prominent place within the organisation’s premises and shall produce the certificate to the Authority upon request.
MCAR-145.25 Facility Requirements

(a) Facilities appropriate for all planned work, ensuring in particular, protection from the weather elements must be provided. Specialised workshops and bays must be segregated as appropriate; to ensure that environmental and work area contamination is unlikely to occur.

(b) Office accommodation appropriate for the management of the sub-paragraph (a) planned work including in particular, the management of quality, planning and technical records must be provided.

(c) The working environment must be appropriate for the task carried out and in particular special requirements observed. Unless otherwise dictated by the particular task environment, the working environment must be such that the effectiveness of personnel is not impaired.

(d) Secure storage facilities must be provided for aircraft components, equipment, tools and material. Storage conditions must ensure segregation of serviceable aircraft components and material from unserviceable aircraft components, material, equipment and tools. The condition of storage must be in accordance with the manufacturer’s instructions to prevent deterioration and damage of stored items. Access to storage facilities must be restricted to authorised personnel.

MCAR-145.30 Personnel Requirements

(a) A senior person or group of persons acceptable to the Authority, whose responsibilities include ensuring that the MCAR-145 approved maintenance organisation is in compliance with MCAR-145 requirements, must be nominated. Such person(s) must be directly responsible to the accountable manager who must be acceptable to the Authority.

(b) The accountable manager must nominate a sub-paragraph (a) senior person, with responsibility for monitoring the MCAR-145.65(c) quality system including the associated feedback system. Such senior person must have right of direct access to the accountable manager to ensure that the accountable manager is kept properly informed on quality and compliance matters.

(c) The MCAR-145 approved maintenance organisation must have a maintenance man-hour plan showing that the organisation has sufficient staff to plan, perform, supervise, inspect and quality monitor the organisation in accordance with the approval. In addition the organisation must have a procedure to reassess work intended to be carried out when actual staff availability is less than the planned staffing level for any particular work shift or period.

(d) The competence of personnel involved in maintenance and/or quality audits must be established and controlled in accordance with a procedure and to a standard acceptable to the Authority. The Approved Maintenance Organisation must also
establish minimum qualification requirements and experience to discharge the duties for Managers, Certifying Staff, Auditors, Mechanics and specialized work.

(e) Reserved

(f) A MCAR-145 approved maintenance organisation maintaining aircraft must have:

(1) In the case of aircraft line maintenance, sufficient personnel and certifying staff qualified in accordance with MCAR-145.35, licensed in accordance with MCAR-66 and meeting any other requirements notified by the Authority.

(2) In the case of aircraft base maintenance, sufficient personnel and certifying staff qualified in accordance with MCAR-145.35, licensed in accordance with MCAR Section 7 and meeting any other requirements notified by the Authority.

(g) A MCAR-145 approved maintenance organization maintaining aircraft components must have certifying staff qualified in accordance with MCAR-145.35 plus any other requirements notified by the Authority.

(h) Notwithstanding sub-paragraphs (f) and (g), the MCAR-145 approved maintenance organisation may in the following circumstances use certifying staff qualified as specified in this sub-paragraph subject to compliance with the conditions stated for each circumstance:

(1) For a MCAR-145 approved maintenance organisation located outside Mauritius, the organisation may use certifying staff qualified in accordance with aviation regulations of a state acceptable to the Authority plus any other requirements notified by the Authority.

(2) Reserved

(3) Reserved.

(4) Reserved.

(5) For the unforeseen case of an aircraft grounded at a location not having an appropriately approved or accepted MCAR-145 maintenance organisation, the principal MCAR-145 approved or accepted maintenance organisation contracted to provide maintenance support and nominated by the operator for this purpose may with the approval of the Authority issue a one-off MCAR-145 certification authorisation to a person with not less than 5 years’ experience and holding a valid and appropriate aircraft maintenance licence rated for the aircraft type requiring certification subject to the MCAR-145 maintenance organisation obtaining and holding on file evidence of the experience and the licence.

Any such maintenance that could affect flight safety shall be rechecked by the nominated MCAR-145 approved or accepted maintenance organisation.
For the purposes of this sub-paragraph, unforeseen means that the aircraft grounding could not reasonably have been predicted by the operator because the defect was unexpected due to being part of a hitherto reliable system.

**MCAR-145.35 Certifying Staff**

(a) In addition to the appropriate MCAR-145.30(f) to (h) sub-paragraph(s), the MCAR-145 approved maintenance organisation must ensure that certifying staff receive Human Factors training and have an adequate understanding of the relevant aircraft and/or aircraft component(s) to be maintained, together with the associated organisation procedures before the issue or re-issue of the MCAR-145 certification authorisation. Relevant aircraft and/or aircraft component(s) means those aircraft and/or aircraft component(s) specified in the particular MCAR-145 certification authorisation.

(b) The MCAR-145 approved maintenance organisation must ensure that all aircraft release certifying staff are involved in at least 6 months of aircraft maintenance experience in the preceding 2-year period. For the purpose of this sub-paragraph, ‘involved in actual aircraft maintenance’ means the person has worked in an aircraft maintenance environment and has either exercised the privileges of the MCAR-145 certification authorisation and/or has actually carried out maintenance on at least some of the aircraft type systems specified in the particular MCAR-145 certification authorisation.

(c) The MCAR-145 maintenance organisation must ensure that all certifying staff receives sufficient continuation training in each 2-year period to ensure that such certifying staff have up-to date knowledge of relevant technology, organisation procedures and human factors issues.

(d) The MCAR-145 approved maintenance organisation must establish a programme for the continuation training and a procedure to ensure compliance with the relevant sub-paragraph(s) of MCAR-145.35 as the basis for issue of MCAR-145 certification authorisations to certifying staff.

(e) All prospective certifying staff must be assessed by the MCAR-145 approved maintenance organisation for their competence, qualification and capability to carry out their intended certifying duties in accordance with a procedure acceptable to the Authority before the issue or re-issue of a MCAR-145 certification authorisation.

(f) The MCAR-145 approved maintenance organisation must issue a MCAR-145 certification authorisation that clearly specifies the scope and limits of such authorisation to those staff that it nominates as certifying staff when satisfied that such staffs are in compliance with sub-paragraph (a), (c) and (e), plus (b) as applicable. Continued validity of the MCAR-145 certification authorisation is dependent upon compliance with subparagraphs (a) and (c), plus (b) as applicable.
(g) The manager or person responsible for the quality system must also remain responsible on behalf of the MCAR-145 approved maintenance organisation for issuing MCAR-145 certification authorisations to certifying staff. Such manager or person may nominate other persons to actually issue the MCAR-145 certification authorisations in accordance with a procedure acceptable to the Authority.

(h) The MCAR-145 approved maintenance organisation must maintain a record of all certifying staff which must include details of any aircraft maintenance licence held, all training completed and the scope of their MCAR-145 certification authorisation. The record must include those with limited or one-off MCAR-145 certification authorisation.

(i) Certifying staff must be provided with a copy of their MCAR-145 certification authorisation. The copy may be in either a documented or electronic format.

(j) Certifying staff must be able to produce their MCAR-145 certification authorisation to any authorised person within a reasonable time.

MCAR-145.40 Equipment, Tools and Material

(a) The MCAR-145 approved maintenance organisation must have the necessary equipment, tools and material to perform the approved scope of work.

(b) Where necessary, tools, equipment and particularly test equipment must be controlled and calibrated to standards acceptable to the Authority at a frequency to ensure serviceability and accuracy. Records of such calibrations and the standards used must be kept by the MCAR-145 approved maintenance organisation.

MCAR-145.45 Maintenance data

(a) The MCAR-145 approved maintenance organisation must hold and use applicable current maintenance data in the performance of maintenance including modifications and repairs. Applicable means relevant to any aircraft, aircraft component or process specified in the MCAR-145 approved maintenance organisation’s approval class rating schedule and any associated capability list.

(b) For the purposes of MCAR-145, applicable maintenance data is:

(1) Any applicable requirement, procedure, airworthiness directive, airworthiness notice or information issued by the Authority.

(2) Any applicable airworthiness directive issued by the original type certificate Authority.
(3) Any applicable data, such as but not limited to, maintenance and repair manuals, issued by an organisation under the approval of the Authority including type certificate and supplementary type certificate holders and any other organisation approved to publish such data by the Authority.

(4) Unless specified otherwise by the Authority, any applicable data, such as but not limited to, maintenance and repair manuals, issued by an organisation under the approval or authority of the original type certificate Authority.

(5) Any applicable standard, such as but not limited to, maintenance standard practices issued by any authority, institute or organisation and recognised by the Authority as a good standard for maintenance.

(6) Any applicable data issued in accordance with sub-paragraph (c).

(c) The MCAR-145 approved maintenance organisation may only modify maintenance instructions in accordance with a procedure in the maintenance organisation’s exposition where it can be shown that such modified maintenance instruction results in equivalent or improved maintenance standards and subject to the type certificate holder being informed. Maintenance instructions for the purpose of this sub-paragraph means an instruction on how to carry out the particular maintenance task. The MCAR-145 approved maintenance organisation may not carry out the engineering design of repairs and modifications under this sub-paragraph (c).

(d) A MCAR-145 approved maintenance organisation shall only carry out repairs in accordance with the approved type certificate holder’s published repair data or any other repair data approved by the Authority, unless otherwise approved by the Authority. The MCAR-145 approved maintenance organisation must establish a procedure to ensure that appropriate action is taken in the case of damage assessment and the need to use only approved repair data.

(e) Except where stated otherwise in subparagraph (e) (1), the MCAR-145 approved maintenance organisation must provide a common work card or worksheet system for use throughout relevant parts of the organisation and must either transcribe accurately the maintenance data contained in sub-paragraph (b), (c) and (d) onto such work cards or worksheets or make precise reference to the particular maintenance task(s) contained in such maintenance data. Work cards and worksheets may be computer generated and held on an electronic database subject to both adequate safeguards against unauthorised alteration and a back-up electronic database which is updated within 24 hours of any entry made to the main electronic database.

(1) Where the MCAR-145 approved maintenance organisation provides a maintenance service to an aircraft operator who require their work card or worksheet system to be used, then such work card or worksheet system may be used. In this case the MCAR-145 approved maintenance organisation must establish a procedure to ensure correct completion of the aircraft operator’s work cards or worksheets.
(f) The MCAR-145 approved maintenance organisation must ensure that all applicable maintenance data is readily available for use when required by maintenance personnel.

(g) The MCAR-145 approved maintenance organisation must ensure that maintenance data controlled by the organisation is kept up to date. In the case of operator/customer controlled and provided maintenance data, the MCAR-145 approved maintenance organisation must show that either it has written confirmation from the operator/customer that all such maintenance data is up to date or it has work orders specifying the amendment status of the maintenance data to be used or it can show that it is on the operator/customer maintenance data amendment list.

**MCAR-145.50**

**Certification of maintenance**

(a) Except where stated otherwise in subparagraphs (d), (e) and (f) a certificate of release to service must be issued by appropriately authorised certifying staff on behalf of the MCAR-145 approved maintenance organisation when satisfied that all maintenance required by the customer of the aircraft or aircraft component has been properly carried out by the MCAR-145 approved maintenance organisation in accordance with the procedures specified in the MCAR-145.70 maintenance organisation exposition taking into account the availability and use of the maintenance data specified in MCAR-145.45.

Note: An aircraft component which has been maintained off the aircraft requires the issue of a certificate of release to service for such maintenance and another certificate of release to service in regard to being installed properly on the aircraft when such action occurs.

(b) A certificate of release to service must contain basic details of the maintenance carried out, the date such maintenance was completed and the identity including approval reference of the MCAR-145 approved maintenance organisation and certifying staff issuing such a certificate.

(c) Reserved

(d) Notwithstanding sub-paragraph (a) when a MCAR-145 maintenance organisation approved to maintain the aircraft is unable to complete all maintenance required by the customer, being the aircraft operator, within the aircraft operator’s limitations, then such fact must be entered in the aircraft certificate of release to service before issue of such certificate.
(e) Notwithstanding sub-paragraph (a), when an aircraft is grounded at a location other than the main maintenance base due to the non-availability of an aircraft component with the appropriate release certificate, it is permissible to temporarily fit an aircraft component without the appropriate release certificate for a maximum of 60 flight hours or until the aircraft first returns to the main line station or main maintenance base, whichever is sooner, subject to the aircraft operator’s agreement and said component having a suitable serviceable tag but otherwise in compliance with the AOC Requirements and MCAR-145 requirements. Such aircraft components must be removed by the specified time unless an appropriate release certificate has been obtained in the meantime.

(f) Notwithstanding sub-paragraphs (a), (d) and (e), a certificate of release to service must not be issued in the case of any non-compliance known to the MCAR-145 approved maintenance organisation which could hazard flight safety.

MCAR-145.55

Maintenance records

(a) The MCAR-145 approved maintenance organisation must record all details of work carried out in a form acceptable to the Authority.

(b) The MCAR-145 approved maintenance organisation must provide a copy of each certificate of release to service to the aircraft operator, together with a copy of any specific approved repair/modification data used for repairs/modifications carried out.

(c) The MCAR-145 approved maintenance organisation must retain a copy of all detailed maintenance records and any associated maintenance data for 2 years from the date the aircraft or aircraft component to which the work relates was released from the MCAR-145 maintenance organisation. The records shall be retrievable within a time acceptable to the Authority.

Note: Where an AOC Holder contracts a MCAR-145 organisation to keep the aircraft operator’s certificates of release to service and any associated data, the retention period will be that required by the AOC Requirements and not that specified by in 145.55(c).

MCAR-145.60

Reporting of Unairworthy Conditions

(a) The MCAR-145 approved maintenance organisation must report to the Authority and the aircraft type certificate holder any condition of the aircraft or aircraft component identified by the MCAR-145 approved maintenance organisation that could seriously hazard the aircraft.
(b) Reports must be made in a form and manner prescribed by the Authority and contains all pertinent information about the condition known to the MCAR-145 approved maintenance organisation.

(c) Where the MCAR-145 approved maintenance organisation is contracted by the aircraft operator to carry out maintenance, the MCAR-145 approved maintenance organisation must also report to the aircraft operator any such condition affecting the aircraft operator’s aircraft or aircraft component.

(d) Reports must be made as soon as practicable but in any case within 3 days of the MCAR-145 approved maintenance organisation identifying the condition to which the report relates.

MCAR-145.65

Maintenance Procedures and Quality System

(a) The MCAR-145 approved maintenance organisation must establish a quality policy for the organisation to be included in the MCAR-145.70 maintenance organisation exposition.

(b) The MCAR-145 approved maintenance organisation must establish procedures acceptable to the Authority to ensure good maintenance practices and compliance with all relevant requirements in this MCAR-145 which must include a clear work order or contract such that aircraft and aircraft components may be released to service in accordance with MCAR-145.50.

(c) The MCAR-145 approved maintenance organisation must establish a quality system that includes:

   (1) Independent audits in order to monitor compliance with required aircraft/aircraft component standards and adequacy of the procedures to ensure that such procedures invoke good maintenance practices and airworthy aircraft/aircraft components. In the smallest organisations, the independent audit part of the quality system may be contracted to another MCAR-145 approved maintenance organisation or a person with appropriate technical knowledge and proven satisfactory audit experience acceptable to the Authority; and

   (2) A quality feedback reporting system to the person or group of persons specified in MCAR-145.30(a) and ultimately to the accountable manager that ensures proper and timely corrective action is taken in response to reports resulting from the independent audits established to meet MCAR-145.65(c)(1).
MCAR-145.70

Maintenance organisation exposition

(a) The MCAR-145 approved maintenance organisation must provide a maintenance organisation exposition for use by the MCAR-145 approved maintenance organisation, containing the following information:

(1) A statement signed by the accountable manager confirming that the maintenance organisation exposition and any reference associated manuals defines the MCAR-145 approved maintenance organisation’s compliance with MCAR-145 and will be complied with at all times. When the accountable manager is not the chief executive officer of the MCAR-145 approved maintenance organisation then such chief executive officer must countersign the statement.

(2) The organisation’s MCAR-145.65(a) quality policy.

(3) The title(s) and name(s) of the senior person(s) accepted by the Authority in accordance with MCAR-145.30(a) and 145.30(e) above the grade of Certifying Staff.

(4) The duties and responsibilities of the senior person(s) specified in subparagraph (3) including matters on which they may deal directly with the Authority on behalf of the MCAR-145 approved maintenance organisation.

(5) An organisation chart showing associated chains of responsibility of the senior person(s) specified in subparagraph (3).

(6) A list of certifying staff.

(7) A general description of manpower resources.

(8) A general description of the facilities located at each address specified in the MCAR-145 approved maintenance organisation’s certificate of approval.

(9) A specification of the MCAR-145 approved maintenance organisation’s scope of work relevant to the extent of approval.

(10) The notification procedure of MCAR-145.85 for MCAR-145 approved maintenance organisation changes.

(11) The maintenance organisation exposition amendment procedure.

Note: Sub-paragraphs (1) to (11) inclusive constitutes the management part of the maintenance organisation exposition.
(12) The MCAR-145 approved maintenance organisation’s procedures and quality system as required by MCAR-145.25 to MCAR-145.95 inclusive.

(13) A list of aircraft operators, if appropriate, to which the MCAR-145 approved maintenance organisation provides a maintenance service.

(14) A list of organisations, if appropriate, as specified in MCAR-145.75 (b).

(15) A list of line stations, if appropriate, as specified in MCAR-145.75(d).

(16) A list of contracted MCAR-145 approved maintenance organisations, if appropriate.

(b) The information specified in sub-paragraphs (6) and (12) to (16) inclusive, whilst a part of the maintenance organisation exposition, may be kept as separate documents or on separate electronic data files subject to the management part of said exposition containing a clear cross-reference to such documents or electronic data files.

(c) The maintenance organisation exposition shall be amended as necessary to keep the information contained therein up to date. The maintenance organisation exposition and any subsequent amendments must be approved by the Authority.

(d) Copies of all amendments to the maintenance organisation exposition shall be furnished promptly to all organisations and persons to whom the manual has been issued.

MCAR-145.75

Privileges of the approved maintenance organisation

The MCAR-145 approved maintenance organisation may only carry out the following tasks as permitted by and in accordance with the MCAR-145 approved maintenance organisation exposition:

(a) Maintain any aircraft or aircraft component for which it is approved at the locations identified in the certificate of approval and/or in the MCAR-145 approved maintenance organisation exposition.

(b) Arrange for maintenance of any aircraft component within the limitations of MCAR-145.1(f) for which it is approved at another organisation that is working under the quality system of the MCAR-145 approved maintenance organisation.

(c) Maintain any aircraft or aircraft component for which it is approved at any location subject to the need for such maintenance arising either from the unserviceability of
the aircraft or from the necessity of supporting occasional line maintenance subject to conditions specified in the procedures acceptable to the Authority and included in the MCAR-145 approved maintenance organisation exposition.

(d) Maintain any aircraft or aircraft component for which it is approved at a location identified as a line maintenance location capable of supporting minor maintenance and only if the MCAR-145 approved maintenance organisation exposition both permits such activity and lists such locations.

(e) Issue certificates of release to service in respect of paragraphs (a) to (d) on completion of maintenance in accordance with MCAR-145.50.

MCAR-145.80 Limitations on the approved maintenance organisation

(a) The MCAR-145 approved maintenance organisation may only maintain an aircraft or aircraft component for which it is approved when all necessary facilities, equipment, tooling, material, maintenance data and certifying staff are available.

(b) The MCAR-145 approved maintenance organisation shall use only aircraft components/parts/materials acceptable to the Authority.

(c) Acceptable in relation to (b) above means having a release tag from EASA. FAA OR Transport Canada, for any other release approval from the authority must be sought.

MCAR-145.85 Changes to the approved maintenance organisation

(a) The MCAR-145 approved maintenance organisation must notify the Authority of any proposal to carry out any of the following changes, before such changes take place, to enable the Authority to determine continued compliance with this MCAR-145 and to amend, if necessary, the certificate of approval, except that in the case of proposed changes in personnel not known to the management beforehand, these changes must be notified at the earliest opportunity.

(1) The name of the organisation.

(2) The location of the organisation.

(3) Additional locations of the organisation.

(4) The accountable manager.

(5) Any of the senior persons specified in MCAR-145.30(a).

(6) The facilities, equipment, tools, material, procedures, work scope and certifying staff that could affect the approval.
(b) The Authority may prescribe the conditions under which the MCAR-145 approved maintenance organisation may operate during such changes unless the Authority determines that the approval should be suspended.

(c) Any new appointment to personnel referred to in 145.30(a) must be agreed by the Authority before assigning the duties and responsibilities

MCAR-145.90

Continued validity of approval

Unless the approval has previously been surrendered, superseded, suspended, revoked or expired by virtue of exceeding any expiry date that may be specified in the certificate of approval, the continued validity of approval is dependent upon

(a) The MCAR-145 approved maintenance organisation remaining in compliance with this MCAR-145;

(b) The Authority being granted access to the MCAR-145 approved maintenance organisation to determine continued compliance with this MCAR-145; and

(c) The payment of any charges prescribed by the Authority. Failure to pay entitles the Authority to suspend, but does not automatically render the approval invalid.

(d) Aircraft Maintenance Organisation has the responsibility to request renewal of its approval if an expiry date is included in its approval. Such request must be made at least 40 days prior to the expiry, otherwise the approval will be revoked.

MCAR-145.95

Equivalent safety case

(a) The Authority may exempt a MCAR-145 approved maintenance organisation from a requirement in this MCAR-145 when satisfied that a situation exists not envisaged by a MCAR-145 requirement and subject to compliance with any supplementary condition(s) that the Authority considers necessary to ensure equivalent safety.

(b) The Authority may exempt an organisation from a requirement in MCAR-145 on an individual case by case permission basis only subject to compliance with any supplementary condition(s) the Authority considers necessary to ensure equivalent safety.
SECTION 2

ACCEPTABLE MEANS OF COMPLIANCE (AMC) AND INTERPRETATIVE/EXPLANATORY MATERIAL (IEM)

1 GENERAL

1.1 This section contains Acceptable Means of Compliance (AMC) and Interpretative/Explanatory Material (IEM) that has been included in the MCAR-145 to assist the MCAR-145 approved maintenance organisation in meeting the necessary requirements.

1.2 Where a particular MCAR requirement does not have an Acceptable Means of Compliance or any Interpretative/Explanatory Material, it is considered that no supplementary material is required.

1.3 In addition, Advisory Circulars issued by the Authority may contain further Acceptable Means of Compliance and/or Interpretative/Explanatory Material.

2 PRESENTATION

2.1 The Acceptable Means of Compliance and Interpretative/Explanatory Material are presented in full-page width on loose pages, each page being identified by the date of issue or the change number under which it is amended or re-issued.

2.2 A numbering system has been used in which the Acceptable Means of Compliance and Interpretative Material uses the same number as the paragraph in MCAR to which it refers. The number is preceded by the letters AMC or IEM to distinguish the material from the MCAR itself.

2.3 The acronyms AMC and IEM also indicate the nature of the material and for this purpose the two types of material are defined as follows:

(a) Acceptable Means of Compliance (AMC) illustrate a means, or several alternative means, but not necessarily the only possible means by which a requirement can be met. It should however, be noted that where a new AMC is developed, any such AMC (which may be additional to an existing AMC) may be amended into the document or issued as a separate Advisory Circular.

(b) Interpretative/Explanatory Material (IEM) helps to illustrate the meaning of a requirement.

2.4 Explanatory notes not forming part of the AMC text appear in a smaller typeface.
AMC 145.1

General

1 Working under the quality system of an appropriately approved MCAR-145 organisation refers to the case of one organisation, not itself appropriately approved to MCAR-145 that carries out maintenance of aircraft components or a specialised service as a subcontractor for an appropriately approved MCAR-145 maintenance organisation and referred to in Appendix 5 under the more common name as subcontracting.

To be appropriately approved to subcontract the MCAR-145 organisation should have a procedure for the control of such subcontractors as stated in AMC-145.65(b) and described in Appendix 5.

Any MCAR-145 approved maintenance organisation that carries out maintenance for another MCAR-145 approved maintenance organisation where the maintenance comes within the approval scope of the MCAR-145 approved maintenance organisation that carries out the maintenance is not considered to be subcontracting for the purpose of this paragraph.

2 As a guide, line maintenance is any maintenance that must be carried out before flight to ensure that the aircraft is fit for the intended flight. Taking into account the wide range of aircraft, and considering their different maintenance programmes, it is not appropriate to use hours, letter checks, or calendar time as a divider between line and base maintenance. Line maintenance may generally include:

   (a) Troubleshooting

   (b) Defect rectification

   (c) Component replacement with use of external test equipment if required. Component replacement may include components such as engines and propellers

   (d) Scheduled maintenance and/or checks including visual inspections which will detect obvious unsatisfactory conditions/discrepancies but do not require extensive in depth inspection. It may also include internal structure, systems and powerplant items which are visible through quick opening access panels/doors

   (e) Minor repairs and modifications which do not require extensive disassembly and can be accomplished by simple means. For temporary or occasional cases (ADs, SBs) the quality manager may accept base maintenance tasks to be performed by a line maintenance organisation provided all requirements are fulfilled. The Authority will prescribe the conditions under which these tasks may be performed.
Maintenance tasks falling outside these criteria are considered to be base maintenance.

Aircraft maintained in accordance with “progressive” type programmes need to be individually assessed in relation to this paragraph. In principle, the decision to allow some “progressive” checks to be carried out is determined by the assessment that all tasks within the particular check can be carried out safely to the required standards at the designated line maintenance station.

**IEM 145.1**

**General**

A Line Station Approval (LSA) approval is an approval granted by the Authority for an organisation not otherwise approved under MCAR-145 to carry out line maintenance at a location outside MAURITIUS.

**IEM 145.5**

**Definitions**

1. With regard to the accountable manager definition, it is normally intended to mean the chief executive officer of the MCAR-145 approved maintenance organisation, who by virtue of position has overall (including in particular financial) responsibility for running the organisation. The accountable manager may be the accountable manager for more than one organisation and is not required to be necessarily knowledgeable on technical matters as the maintenance organisation exposition defines the maintenance standards.

   When the accountable manager is not the chief executive officer, the Authority will need to be assured that such an accountable manager has direct access to the CEO and has a sufficiency of “maintenance funding” allocation.

2. ‘Restoration’ should be understood to mean the work necessary to return the aircraft/aircraft component to an approved standard.

3. The smallest MCAR-145 approved maintenance organisations are those that employ full time between 1 and 20 staff actively engaged in maintenance or the control of maintenance. Full time means not less than 35 hours per week except during vacation periods.

**IEM 145.10**

**Applicability**

Issue 1 Dated 21 March 2008
1 Where the organisation uses facilities both inside and outside Mauritius such as satellite facilities, line stations, sub-contractors etc., such facilities may be included in the approval without being identified on the approval certificate subject to the maintenance organisation exposition identifying the facilities and containing procedures to control such facilities and the Authority being satisfied that they form an integral part of the MCAR-145 approved maintenance organisation.

2 DCA publishes a list of all MCAR-145 approved maintenance organisations and all organisations accepted under MCAR-145.10(d) on the DCA website at http://civil-aviation.gov.mu.

AMC 145.10

Applicability

1 Potential applicants should show the Authority that there is a need to hold the MCAR-145 maintenance organisation approval by producing evidence that a MCAR-145 approved maintenance organisation or AOC Holder would like to use the potential applicant’s facilities to support an aircraft registered in MAURITIUS. The evidence should be in the form of a letter(s) from the customer giving reasons for the need.

2 Reserved

AMC 145.15

Application and Issue

“In a form and manner” means that form DCA AWF12 should be obtained from the DCA Airworthiness & Flight Operations Division and completed by the accountable manager. Normally only one copy of the maintenance organisation exposition is required to be submitted except when additional copies are requested by the Authority in a particular case.

IEM 145.20

Extent of approval

Appendix 1 contains a table listing all classes and ratings possible under MCAR-145.
AMC 145.25(a)

Facility Requirements (General)

1  For base maintenance of aircraft, this means that aircraft hangars should be both available and large enough to accommodate aircraft on planned base maintenance. Where the hangar is not owned by the MCAR-145 organisation, it may be necessary to establish proof of tenancy. In addition, sufficiency of hangar space to carry out planned base maintenance will need to be demonstrated by the preparation of a projected aircraft hangar visit plan relative to the maintenance programme. The aircraft hangar visit plan should be updated on a regular basis.

2  For line maintenance of aircraft, hangars are not essential but it is recommended that access to hangar accommodation be demonstrated for usage during inclement weather for minor scheduled work and lengthy defect rectification.

3  For aircraft component maintenance, this means that aircraft component workshops should be large enough to accommodate the components on planned maintenance.

4  Protection from the weather elements relates to the normal prevailing local weather elements that are expected throughout any twelve month period. The structures of aircraft hangars and aircraft component workshops should be to a standard that prevents the ingress of rain, hail, ice, snow, wind and dust etc. Aircraft hangar and aircraft component workshop floors should be sealed to minimise dust generation.

AMC 145.25(b)

Facility Requirements (Office Accommodation)

1  Office accommodation in this case means, office accommodation such that the incumbents, whether they be management, planning, technical records, quality or certifying staff, can carry out their designated tasks in a manner that contributes to good aircraft maintenance standards. In addition, aircraft maintenance staff should be provided with an area where they may study maintenance instructions and complete maintenance records in a proper manner.

2  It is acceptable to combine any or all of the above requirements into one office subject to the staff having sufficient room to carry out assigned tasks.

AMC 145.25(c)

Facility Requirements (Working Environment)

1  Hangars used to house aircraft together with office accommodation should be such as to ensure the working environment permits personnel to carry out work tasks in an effective manner.
2 Temperatures should be maintained such that personnel can carry out required tasks without undue discomfort.

3 Dust and any other airborne contamination should be kept to a minimum and not be permitted to reach a level in the work task area where visible aircraft / component surface contamination is evident.

4 Lighting should be such as to ensure each inspection and maintenance task can be carried out.

5 Noise levels should not be permitted to rise to the point of distracting personnel from carrying out inspection tasks. Where it is impractical to control the noise source, such personnel should be provided with the necessary personal equipment to stop excessive noise causing distraction during inspection tasks.

6 Where a particular maintenance task requires the application of specific environmental conditions different to the foregoing, then such conditions should be observed. Specific conditions are identified in the approved maintenance instructions.

7 The working environment for line maintenance should be such that the particular maintenance or inspection task can be carried out without undue distraction. It therefore follows that where the working environment deteriorates to an unacceptable level in respect of temperature, moisture, hail, ice, snow, wind, light dust / other airborne contamination, the particular maintenance or inspection tasks should be suspended until satisfactory conditions are re-established.

8 For both base and line maintenance where dust / other airborne contamination results in visible surface contamination, all susceptible systems should be sealed until acceptable conditions are reestablished.

AMC 145.25(d)

Facility Requirements (Storage Facilities)

1 Storage facilities for serviceable aircraft components, equipment, tools and materials should be clean, well-ventilated and maintained at an even dry temperature to minimise the effects of condensation. Manufacturers’ storage recommendations should be followed for those aircraft components identified in such published recommendations. Storage limiting periods should be observed.

2 Storage racks should be strong enough to hold aircraft components and provide sufficient support for large aircraft components such that the component is not distorted during storage.

3 All aircraft components, wherever practicable, should remain packaged in protective material to minimise damage and corrosion during storage.
A secure quarantine store or facility should be provided to isolate those aircraft components, tools or material where the status of serviceability has not been or cannot be determined.

AMC 145.30(a)

Personnel requirements (Senior Persons)

1. The person or persons nominated should represent the maintenance management structure of the organisation and be responsible for all functions specified in MCAR-145. It therefore follows that, dependent upon the size of the MCAR-145 organisation, the MCAR-145 functions may be sub-divided under individual managers (and in fact may be further sub-divided) or combined in any number of ways.

2. In essence however, the MCAR-145 organisation should have, dependent upon the extent of approval, a base maintenance manager, a line maintenance manager, a workshop manager and a quality manager, all of whom should report to the accountable manager except in the smallest MCAR-145 organisations, where any one manager may assume more than one manager’s functions apart from that of Quality Manager.

3. Procedures should make clear who deputises for any particular manager in the case of lengthy absence of said manager(s). The length of absence to justify deputising is the period beyond which the organisation cannot function properly due to such absence.

4. The accountable manager is responsible for ensuring that all necessary resources are available to accomplish maintenance in accordance with MCAR-145.65(b) to support the organisation’s MCAR-145 approval.

5. The base maintenance manager is responsible for ensuring that all maintenance required to be carried out in the hangar, plus any defect rectification carried out during base maintenance, is carried out to the design and quality standards specified in MCAR-145.65(b). The base maintenance manager is also responsible for any corrective action resulting from the quality compliance monitoring of MCAR-145.65(c).

6. The line maintenance manager is responsible for ensuring that all maintenance required to be carried out on the line including defect rectification is carried out to the standards specified in MCAR-145.65(b) and also responsible for any corrective action resulting from the quality compliance monitoring of MCAR-145.65(c).

7. The workshop manager is responsible for ensuring that all work on aircraft components is carried out to the standards specified in MCAR-145.65(b) and also responsible for any corrective action resulting from the quality compliance monitoring of MCAR-145.65(c).

8. The quality manager’s responsibility is specified in MCAR-145.30(b).
9 The organisation may adopt any title for the foregoing managerial positions but should identify to the Authority the titles and persons chosen to carry out these functions.

10 Where a MCAR-145 organisation chooses to appoint managers for all or any combination of the identified MCAR-145 functions because of the size of the undertaking, it is necessary that these managers report ultimately through either the base maintenance manager or line maintenance manager or workshop manager or quality manager, as appropriate, to the accountable manager.

11 The Authority therefore requires the managers specified above to be identified and their credentials submitted on form DCA form 4 to the Authority. The accountable manager should have a basic understanding of MCAR-145 and the responsibilities associated with being the accountable manager. To be accepted, the quality manager must meet all qualification and experience requirements prescribed by AMC 145.30(b). To be accepted, all other such managers should have relevant knowledge and satisfactory experience related to aircraft/aircraft component maintenance as appropriate in accordance with the relevant Requirements published by the Authority.

For the purpose of MCAR 145.30(e), the Authority will have to approve the details required, which should be annexed to the MOE.

Note: Certifying staff may report to any of the managers specified depending upon which type of control the MCAR-145 approved maintenance organisation uses (for example - licensed engineers / independent inspection / dual function supervisors etc.) so long as the quality compliance monitoring staff specified in the MCAR-145.65(c)(1) remain independent of all.

AMC 145.30(b)

Personnel requirements (Quality manager)

1 Monitoring the quality system includes requesting remedial action as necessary by the AMC-145.30(a) accountable manager, base maintenance manager, line maintenance manager and workshop manager as appropriate.

2 A Quality Manager should possess at least the following qualifications:

   (a) For organisations holding an ‘A’ class rating, be the holder of an aircraft maintenance engineer’s licence acceptable to the Authority or an otherwise equivalent qualification acceptable to the Authority.

   (b) Preferably have a relevant degree or diploma in a relevant discipline.

   (c) Have at least 3 years’ experience in quality assurance in related aviation environment.
(d) Passed the DCA Air Legislation examination paper, as appropriate.

AMC 145.30(c)

Personnel requirements (Man-hour planning)

1  Having sufficient staff means that the MCAR-145 approved maintenance organisation employs or contracts such staff of which at least half the staff that performs maintenance in each workshop, hangar or flight line should be employed to ensure organisation stability. Contract staff, being part-time or full-time should be made aware that when working for the MCAR-145 approved maintenance organisation they are subjected to compliance with the organisation’s procedures specified in the maintenance organisation exposition relevant to their duties. For the purpose of this sub-paragraph, employed means the person is directly employed as an individual by the MCAR-145 approved maintenance organisation whereas contracted means the person is employed by another organisation and contracted by that organisation to the MCAR-145 approved maintenance organisation.

2  The maintenance man-hour plan should take into account any maintenance carried out on aircraft/aircraft components from outside Mauritius.

3  The maintenance man-hour plan should relate to the anticipated maintenance work load except that when the MCAR-145 approved maintenance organisation cannot predict such workload, due to the short term nature of its contracts, when such plan should be based upon the minimum maintenance workload needed for commercial viability. Maintenance work load includes all necessary work such as, but not limited to, planning, maintenance record checks, production of worksheets/cards in paper or electronic form, accomplishment of maintenance, inspection and the completion of maintenance records.

4  In the case of aircraft base maintenance, the maintenance man-hour plan should relate to the AMC145.25(a) aircraft hangar visit plan.

5  In the case of aircraft component maintenance, the maintenance man-hour plan should relate to the AMC-145.25(a) aircraft component planned maintenance.

6  The quality monitoring compliance function man-hours should be sufficient to meet the requirement of MCAR-145.65(c) which means taking into account relevant AMC-145.65(c) sub-paragraphs. Where quality monitoring staff performs other functions, the time allocated to such functions needs to be taken into account in determining quality monitoring staff numbers.

7  The maintenance man-hour plan should be reviewed at least every 3 months and updated when necessary.
MCAR-145 approved maintenance organisations located in Mauritius and holding A or B class ratings are to submit the maintenance man-hour plans to the Authority every 3 months.

Significant deviation from the maintenance man-hour plan should be reported through the departmental manager to the quality manager and the accountable manager for review. Significant deviation means more than a 25% shortfall in available man-hours during a calendar month for any one of the functions specified in MCAR-145.30(c).

The referenced maintenance man-hour plan and any associated procedure should be specified in the maintenance organisation exposition.

AMC 145.30(d)

Personnel requirements (Personnel competency)

The referenced procedure requires amongst others, that planners, mechanics, specialised services staff, supervisors and certifying staff are assessed for competence by ‘on the job’ evaluation and/or by examination relevant to their particular job role within the organisation before unsupervised work is permitted.

To assist in the assessment of competence, job descriptions are recommended for each job role in the organisation. Basically, the assessment should establish that:

(a) Planners are able to interpret maintenance requirements into maintenance tasks, and have an appreciation that they have no authority to deviate from the maintenance data.

(b) Mechanics are able to carry out maintenance tasks to any standard specified in the maintenance data and will notify supervisors of mistakes requiring rectification to re-establish required maintenance standards.

(c) Specialised services staff are able to carry out maintenance tasks to the standard specified in the maintenance data and will both inform and await instructions from their supervisor in any case where it is not possible to complete the specialised maintenance in accordance with the maintenance data.

(d) Supervisors are able to ensure that all required maintenance tasks are carried out and where not completed or where it is evident that a particular maintenance task cannot be carried out to the maintenance data, then such problems will be reported to the MCAR-145.30(b) person for appropriate action. In addition, for those supervisors who also carry out maintenance tasks, that they understand such tasks should not be undertaken when incompatible with their management responsibilities.
(e) Certifying staff are able to determine when the aircraft or aircraft component is ready to release to service and when it should not be released to service.

3 Particularly, in the case of planners, specialised services staff, supervisors and certifying staff, a knowledge of organisation procedures relevant to their particular role in the organisation is important.

4 Quality audit staff are able to monitor compliance with MCAR-145 identifying non-compliance in an effective and timely manner in order that the MCAR-145 approved maintenance organisation may remain in compliance MCAR-145.

AMC 145.30(f)(1)

Personnel requirements (MCAR-66 Category A certifying staff)

1 Reserved

2 Reserved

AMC 145.35(a)

Certifying Staff (General)

1 Adequate understanding of the relevant aircraft and/or aircraft component(s) to be maintained together with the associated organisation procedures means that the person has received training and passed an examination or has relevant maintenance experience and passed an examination on the product type and associated organisation procedures such that the person understands how the product functions, what are the more common defects with associated consequences.

2 Alternatively such training and examination may be reduced or eliminated when AMC 145.35(e) subparagraph 3 is taken into account.

3 Training of certifying staff may be performed by the MCAR-145 approved maintenance organisation or by an institute selected by the organisation. In either case, the MCAR-145 approved maintenance organisation should establish the curriculum and standards for training. Consideration should also be given to the establishment of pre-qualification standards for the personnel intended for training so as to ensure that the trainee has a reasonable chance of successfully completing any course.

4 Human factors training includes instruction in, but is not limited to, human performance, factors influencing human error (such as fatigue, stress, assertiveness, awareness, resources, knowledge, teamwork, norms, complacency, pressure, distraction, communication, etc.) and error management, including error prevention and error containment.
5 Non-certifying maintenance staff should be provided with adequate training including associated organisation procedures specific to the tasks that such staff may be required to perform.

AMC 145.35(c)

Certifying Staff (Continuation training)

1 Continuation training is a two way process to ensure that certifying staff remain current in terms of procedures, human factors and technical knowledge and that the MCAR-145 approved maintenance organisation receives feedback on the adequacy of its procedures and maintenance instructions. Due to the interactive nature of this training, consideration should be given to the possibility that such training has the involvement of the quality department to ensure that feedback is actioned. Alternatively, there should be a procedure to ensure that feedback is formally passed from the training department to the quality department to initiate action.

2 Continuation training should cover changes in relevant requirements such as MCAR-145, changes in organisation procedures and the modification standard of the products being maintained plus human factor issues identified from any internal or external analysis of incidents. It should also address instances where staff failed to follow procedures and the reasons why particular procedures are not always followed. In many cases the continuation training will reinforce the need to follow procedures and ensure that incomplete or incorrect procedures are identified to the company in order that they can be corrected. This does not preclude the possible need to carry out a quality audit of such procedures.

3 Continuation training should be of sufficient duration in each 2 year period to meet the intent of MCAR-145.35(c) and may be split into a number of separate elements. MCAR-145.35(c) relates such training to keeping certifying staff updated in terms of relevant technology, procedures and human factors issues which means it is one part of ensuring quality. Therefore sufficient duration should be related to relevant quality audit findings and other internal / external sources of information available to the organisation on human errors in maintenance.

This means that in the case of a MCAR-145 approved maintenance organisation that maintains aircraft with few relevant quality audit findings, continuation training could be limited to days rather than weeks, whereas a similar organisation with a number of relevant quality audit findings, such training may take several weeks. For a MCAR-145 approved maintenance organisation that maintains aircraft components, the duration of continuation training would follow the same philosophy but should be scaled down to reflect the more limited nature of the activity. For example certifying staff who release hydraulic pumps may only require a few hours of continuation
training whereas those who release turbine engine may only require a few days of such training.

The content of continuation training should be related to relevant quality audit findings and it is recommended that such training is reviewed at least once in every 24 month period.

4 The method of training is intended to be a flexible process and could, for example, include internal short duration courses, seminars, etc. The elements, general content and length of such training should be specified in the MCAR-145 maintenance organisation exposition.

5 Continuation training should also be provided for non-certifying maintenance staff.

AMC 145.35(d)

Certifying staff (Continuation training procedures)

1 The programme for continuation training should list all certifying staff and when training will take place, the elements of such training and an indication that it was carried out reasonably on time as planned. Such information should subsequently be transferred to the certifying staff record as required by MCAR-145.35(h).

2 The referenced procedure should be specified in the maintenance organisation exposition.

AMC 145.35(e) Certifying staff (Determination of competency)

1 All prospective certifying staff are required to be assessed for competence, qualification and capability related to intended certifying duties. There are a number of ways in which such assessment may be carried out but the following points need to be considered to establish an assessment procedure that fits the particular MCAR-145 approved maintenance organisation.

2 Competence and capability can be assessed by working the person under the supervision of either another certifying person or a quality auditor for sufficient time to arrive at a conclusion. Sufficient time could be as little as a few weeks if the person is fully exposed to relevant work. It is not practical to assess against the complete spectrum of intended duties and this should not be done. When the person has been recruited from another MCAR-145 approved maintenance organisation and was a certifying person in that organisation for a similar product then it is reasonable to accept a written confirmation from the person responsible for running the quality system about the person.
3 Qualification assessment means collecting copies of all documents that attest to qualification, such as the licence and/or any authorisation held. This should be followed by a confirmation check with the organisation(s) that issued such document(s) and finally a comparison check for differences between the product type ratings on the qualification documents and the relevant product types maintained by the MCAR-145 approved maintenance organisation. This latter point may reveal a need for product type differences training.

4 Unless otherwise agreed with the Authority, the MCAR-145 approved maintenance organisation must seek the Authority’s acceptance of a potential certifying staff prior to the initial issue or extension of the MCAR-145 certification authorisation. The Authority would require proof that all specified requirements for a certifying staff have been met. Forms DCA form 4 and DCA form 4A should be used. The MCAR-145 certification authorisation may only be issued after the Authority has indicated its acceptance.

5 The relevant procedures should be specified in the maintenance organisation exposition.

AMC 145.35(f)

Certifying staff (Scope of certification authorisation)

The MCAR-145 certification authorisation should be in a style that makes its scope clear to certifying staff and any authorised person that may require to examine the authorisation. Where codes are used to define scope, a code translation should be readily available.

AMC 145.35(h)

Certifying staff (Records)

1 The following minimum information should be kept on record in respect of each certifying person:

(a) Name
(b) Date of birth
(c) Basic training
(d) Type training
(e) Continuation training
(f) Experience
(g) Qualifications relevant to the authorisation and licence

(h) Scope of authorisation and licence

(i) Date of first issue of the authorisation and licence

(j) If appropriate - expiry date of the authorisation and licence

(k) Identification number of the authorisation and licence

2 The record may be kept in any format but should be controlled by the organisation’s quality department. This does not mean that the quality department should run the record system.

3 Persons authorised to access the system should be maintained at a minimum to ensure that records cannot be altered in an unauthorised manner or that such confidential records become accessible to unauthorised persons.

4 The certifying person should be given reasonable access on request to his/her own records.

5 The Authority is an authorised person when investigating the records system for initial and continued approval or when the Authority has cause to doubt the competence of a particular certifying person.

6 The organisation should keep the record for at least two years after the certifying person has ceased employment with the organisation or withdrawal of the authorisation, whichever is the sooner. In addition, the certifying staff should be furnished on request with a copy of their record on leaving the organisation.

IEM 145.35(j)

Certifying staff

Certifying staff are not required to carry the MCAR-145 certification authorisation. Authorised person means any official or business person or organisation with a valid reason for seeing the MCAR-145 certification authorisation. Valid reasons include the need to check such authorisations for validity, scope and authenticity.
AMC 145.40(a)

Equipment, Tools and Material (General)

1 Once the applicant for MCAR-145 approval has determined the intended scope of approval for consideration by the DCA, it will be necessary to show that all tools and equipment as specified in the approved data can be made available when needed. All such tools and equipment that are required to be controlled in terms of servicing or calibration by virtue of being necessary to measure specified dimensions and torque figures etc, should be clearly identified and listed in a control register including any personal tools and equipment that the organisation agrees can be used. Where the manufacturer specifies a particular tool or equipment, then that tool or equipment should be used unless otherwise agreed by the Authority in a particular case via a procedure specified in the maintenance organisation exposition to use alternative tooling/equipment.

2 The availability of equipment and tools means permanent availability except in the case of any tool or equipment that is so rarely needed that its permanent availability is not necessary.

3 The MCAR-145 organisation approved for base maintenance should have sufficient aircraft access equipment and inspection platforms/docking such that the aircraft may be properly inspected.

4 The necessary material to perform the scope of work means readily available raw material and aircraft components in accordance with the manufacturer’s recommendation unless the organisation has an established spares provisioning procedure.

AMC 145.40(b)

Equipment, Tools and Material (Calibration)

1 The control of these tools and equipment requires that the organisation has a procedure to inspect/ service and, where appropriate, calibrate such items on a regular basis and indicate to users that the item is within any inspection or service or calibration time-limit. A clear system labeling all tooling, equipment and test equipment is therefore necessary giving information on when the next inspection of service or calibration is due and if the item is unserviceable for any other reason where it may not be obvious. A register should be maintained for all precision tooling and equipment together with a record of calibrations and standards used.
Inspection, service or calibration on a regular basis should be in accordance with the equipment manufacturer’s instructions except where the MCAR-145 organisation can show by results that a different time period is appropriate in a particular case.

Standards acceptable to the Authority include acceptable national or international standards and approved original equipment manufacturer’s standards.

The MCAR-145 approved maintenance organisation may send its tools and equipment for inspection/calibration/servicing only to original equipment manufacturers and organisations accredited by the local national standards. Organisations accredited by ILAC would be acceptable to DCA.

Where in-house calibration is practiced, the MCAR-145 approved maintenance organisation must have such capability listed in the exposition together with the associated control procedures. Such procedures should include the following:

(a) A capability list controlled by quality department.
(b) A system of issuing and keeping test reports/results.
(c) Monitoring of environmental conditions.
(d) Personnel training and qualification.
(e) Segregation of master equipment from normal ones.
(f) Traceability to approved standards.

AMC 145.45(b)

Maintenance Data

Except as specified in sub-paragraph 5, each MCAR-145 approved maintenance organisation should hold and use the following minimum maintenance data relevant to the organisation’s approval class rating:

All maintenance related MCAR and associated AMCs and IEMs, all DCA maintenance related Airworthiness Notices and Advisory Circulars and all applicable airworthiness directives.

In addition to sub-paragraph 1, a MCAR-145 approved maintenance organisation with an approval class rating in category A - Aircraft, should hold and use the following maintenance data where published:
The appropriate sections of the operator’s aircraft maintenance programme, aircraft maintenance manual, repair manual, supplementary structural inspection document, corrosion control document, service bulletins, service letters, service instructions, modification leaflets, NDI manual, parts catalogue, type certificate data sheet and any other specific document issued by the type certificate or supplementary type certificate holder as maintenance data, except that in the case of operator or customer provided maintenance data it is not necessary to hold such provided data when the work order is completed other than the need to comply with MCAR-145.55(c).

3 In addition to sub-paragraph 1, a MCAR-145 approved maintenance organisation with an approval class rating in category B - Engines/APUs, should hold and use the following maintenance data where published:

The appropriate sections of the engine/APU maintenance and repair manual, service bulletins, service letters, modification leaflets, NDI manual, parts catalogue, type certificate data sheet and any other specific document issued by the type certificate holder as maintenance data, except that in the case of operator or customer provided maintenance data it is not necessary to hold such provided data when the work order is completed other than the need to comply with MCAR-145.55(c).

4 In addition to sub-paragraph 1, a MCAR-145 approved maintenance organisation with an approval class rating in category C - Components other than complete engines/APUs, should hold and use the following maintenance data where published:

The appropriate sections of the vendor maintenance and repair manual, service bulletins and service letters plus any document issued by the type certificate holder as maintenance data on whose product the component may be fitted when applicable, except that in the case of operator or customer provided maintenance data it is not necessary to hold such provided data when the work order is completed other than the need to comply with MCAR-145.55(c).

5 Appropriate sections of the sub-paragraphs 2 to 4 additional maintenance data means in relation to the maintenance work scope at each particular maintenance facility. In other words for example, a base maintenance facility should have almost complete set(s) of the maintenance data whereas a line maintenance facility may need only the maintenance manual and the parts catalogue.

6 A MCAR-145 approved maintenance organisation only approved in class rating category D - Specialised services, should hold and use the following maintenance data where published in respect of the particular specialised service(s) specified in the approval schedule:

MCAR-145 plus associated AMCs and IEMs and the specialised service(s) process specification, except that in the case of operator or customer provided maintenance data it is not necessary to hold such provided data when the work order is completed other than the need to comply with MCAR-145.55(c).
AMC 145.45(c)

Maintenance data (Modification of maintenance instructions)

The referenced procedure should address the need for a practical demonstration by the mechanic to the quality personnel of the proposed modified maintenance instruction. The quality personnel should approve (or not approve) the modified maintenance instruction and ensure that the type certificate holder or the supplementary type certificate holder is informed of the modified maintenance instruction. The procedure should include a paper/electronic traceability of the complete process from start to finish and ensure that the relevant maintenance instruction clearly identifies the modified maintenance instructions. Modified maintenance instructions should only be used in the following circumstances;

(a) Where the type certificate / supplementary type certificate holders original intent can be carried out in a more practical or more efficient manner.

(b) Where the type certificate / supplementary type certificate holders original intent cannot be achieved by following the maintenance instructions. For example, where a component cannot be replaced following the original maintenance instructions.

(c) For the use of alternative tools / equipment.

AMC 145.45(d)

Maintenance data (Classification of repairs)

1 A MCAR-145 approved maintenance organisation is required by MCAR-145.45 (d) to establish a procedure to process minor or major repairs. To satisfy the requirement, the organisation should describe the actions to be taken when the need for damage assessment and / or repair action arises. At minimum, the procedure should address the need to assess damage against published approved repair data and the action to be taken if damage is beyond the limits or outside the scope of such data. This could involve any one or more of the following options: Repair by replacement of damaged parts, requesting technical support from the type certificate holder or from a Design Organisation Approval holder or obtain the Authority’s approval of the particular repair data.

2 The reference in sub-paragraph 1 to published approved repair data means the data specified in MCAR-145.45(b).

3 For the purpose of MCAR-145.45(d) reference to minor or major repair relates only to design criteria and not to maintenance criteria.
AMC 145.45(e)

Maintenance data (Workcards/worksheets)

1 Relevant parts of the organisation means with regard to aircraft base maintenance, aircraft line maintenance, engine workshops, mechanical workshops and avionic workshops. Therefore, for example engine workshops should have a common system throughout such engine workshops that may be different to that in aircraft base maintenance.

2 Complex maintenance tasks should be transcribed onto the work cards or worksheets and sub-divided into clear stages to ensure a record of the accomplishment of the maintenance task. Of particular importance is the need to differentiate and specify, when relevant, disassembly, accomplishment of task, reassembly and testing. In the case of a lengthy maintenance task involving a succession of personnel to complete such task, it may be necessary to use supplementary work cards or worksheets to indicate what was actually accomplished by each individual person.

AMC 145.45(f)/(g)

Maintenance data (Up-to-date data)

1 To keep data up to date, a procedure should be set up to monitor the amendment status of all data and maintain a check that all amendments are being received by being a subscriber to any document amendment scheme.

2 Data being made available to personnel maintaining aircraft means that the data should be available in close proximity to the aircraft being maintained, for supervisors, mechanics and certifying staff to study.

3 Where computer systems are used, the number of computer terminals should be sufficient in relation to the size of the work programme to enable easy access, unless the computer system can produce paper copies. Where microfilm or microfiche readers/printers are used, a similar requirement is applicable.

AMC 145.50(a)

Certification of maintenance (Requirements for release to service)

1 A certificate of release to service is necessary before flight at the completion of any package of maintenance specified by the aircraft operator in accordance with such operator’s responsibility in the AOC Requirements. The package of maintenance may include any one or combination of the following elements: a check or inspection from the operator’s aircraft maintenance programme, Airworthiness Directives, overhauls, repairs, modifications, aircraft component replacements and defect rectification.
New defects or incomplete maintenance work orders identified during the above maintenance should be brought to the attention of the aircraft operator for the specific purpose of obtaining agreement to rectify such defects or completing the missing elements of the maintenance work order. In the case where the aircraft operator declines to have such maintenance carried out MCAR-145.50(d) will apply.

2 A certificate of release to service is necessary before flight at the completion of any defect rectification whilst the aircraft operates flight services between scheduled maintenance.

3 A certificate of release to service is necessary at the completion of any maintenance on an aircraft component whilst off the aircraft.

4 The authorised release certificate identified as form DCA AWF 95 (see Appendix 3) constitutes the aircraft component certificate of release to service when an aircraft component is maintained by one MCAR-145 organisation for another MCAR-145 organisation.

5 When a MCAR-145 organisation maintains an aircraft component for use by the same organisation, a DCA AWF 95 may not be necessary depending upon the organisation’s release procedures defined in the maintenance organisation exposition.

6 In respect of aircraft base maintenance, the inspection and release to service should be carried out as follows:

   (a) The person who carried out the particular base maintenance task should sign that he has accomplished the task only when satisfied by self inspection that the task has been properly carried out in accordance with the approved maintenance instructions.

   (b) If the aircraft maintenance programme requires a specific inspection in addition to the one performed under para 6(a), this duplicate inspection should be accomplished by another competent person, who should sign for the second inspection when satisfied.

   (c) The base maintenance certifying staff should issue release to service for the aircraft when satisfied that the complete maintenance process has been carried out in accordance with the approved procedures.

7 In respect of aircraft line maintenance, the inspection and release to service should be carried out as follows:
(a) The person who carried out the scheduled line maintenance tasks and unscheduled defect rectification should carry out the inspection function. Such person should issue a release to service for the tasks completed only when satisfied by self inspection that the tasks have been properly carried out in accordance with the approved maintenance instructions.

(b) For the purpose of Regulation 18 and 19 of the Civil Aviation Regulations, a Certificate of Release to Service is required for a preflight inspection or transit as applicable.

8 In respect of aircraft component workshop maintenance, the inspection and release to service should be carried out as follows:

(a) The person who carries out a maintenance task specified in the maintenance instructions should sign that he has accomplished the task only when satisfied by self inspection that the task has been properly carried out in accordance with the approved maintenance instructions.

(b) The workshop component certifying staff should issue release to service (including the ARC as appropriate) for the aircraft component after the completion of all tasks when satisfied that the complete maintenance process has been carried out in accordance with the approved procedures including additional inspection, when required.

AMC 145.50(b)

Certification of maintenance (Details of a certificate of release to service)

1 The certificate of release to service should contain the following statement:
“Certifies that the work specified except as otherwise specified was carried out in accordance with MCAR-145 and the Civil Aviation Regulations and in respect to that work the aircraft/aircraft component is considered ready for release to service.”
Note: The Release to Service statement in Block 19 of the ARC – form DCAAWF 95 – is slightly at variance with the above statement in that it refers to particular boxes on the form.

2 The certificate of release to service should relate to the task specified in the manufacturer’s or AOC Holder’s instruction or the aircraft maintenance programme which itself may cross-refer to a manufacturer’s / operator’s instruction in a maintenance manual, service bulletin, etc.

3 Where such instructions include a requirement to ensure a dimension or test figure is within a specific tolerance as opposed to a general tolerance, the dimension or test figure should be recorded unless the instruction permits the use of GO/NO GO gauges. It is not normally sufficient to state that the dimension or the test figure is within tolerance.
4 The date such maintenance was carried out should include when the maintenance took place relative to any life or overhaul limitation in terms of date/flying hours/cycles/landings etc., as appropriate.

5 When extensive maintenance has been carried out, it is acceptable for the certificate of release to service to summarise the maintenance so long as there is a unique cross-reference to the work-pack containing full details of maintenance carried out. Dimensional information should be retained in the work-pack record.

6 Reserved

7 For the Purpose of MCAR 145-50(b), an A &C Category licence issued by DCA is considered equivalent to a BI issued under EASA part 66, However the B1 Licence holder cannot exercise the privileges of the extended Electrical module for the time being. For DCA licence issued under the MCAR PART 66 syllabus the Authority may consider to extend the privileges.

AMC 145.50(d)

Certification of maintenance (Incomplete maintenance)

1 Being unable to establish full compliance with MCAR-145.50(a) means that the maintenance required by the aircraft operator could not be completed due either to running out of available aircraft maintenance downtime for the scheduled check or by virtue of the condition of the aircraft requiring additional maintenance downtime.

2 As stated in the AOC Requirements, the aircraft operator is responsible for ensuring that all required maintenance has been carried out before flight and therefore MCAR-145.50(d) requires such operator to be informed in the case where full compliance with MCAR-145.50(a) cannot be achieved within the operator’s limitations. If the operator agrees to the deferment of full compliance, then the certificate of release to service may be issued subject to details of the deferment, including the operator’s authority, being endorsed on the certificate.

NOTE: Whether or not the aircraft operator does have the authority to defer maintenance is an issue between the aircraft operator and the Authority.

3 The procedure should draw attention to the fact that MCAR-145.50(a) does not normally permit the issue of a certificate of release to service in the case of non-compliance and should state what action the mechanic, supervisor and certifying staff should take to bring the matter to the attention of the relevant department or person responsible for technical co-ordination with the aircraft operator so that the issue may be discussed and resolved with the aircraft operator. In addition, the appropriate MCAR-145.30(a) person(s) should be kept informed in writing of such possible non-compliance situations and this should be included in the procedure.
4 The referenced procedure should be specified in the maintenance organisation exposition.

AMC 145.50(e)

Certification of maintenance (Use of component without a suitable release certificate)

1 Suitable serviceable tag means a tag which clearly states that the aircraft component is serviceable; that clearly specifies the organisation releasing the component together with the approval or authorisation reference.

2 Compliance with all other AOCR and MCAR-145 requirements means making an appropriate entry in the aircraft technical log, checking for compliance with type design standards, modifications, repairs, airworthiness directives, life limitations and condition of the aircraft component plus information on where, when and why the aircraft was grounded.

AMC 145.50(f)

Certification of maintenance (Hazard to flight safety)

A non-compliance known to the MCAR-145 approved maintenance organisation which could hazard flight safety means any instances where safe operation could not be assured or which could lead to an unsafe condition. It typically includes, but is not limited to, significant cracking, deformation, corrosion or failure of primary structure, any evidence of burning, electrical arcing, significant hydraulic fluid or fuel leakage and any emergency system or total system failure. An Airworthiness Directive overdue for compliance is also considered a hazard to flight safety. As stated in MCAR-145.50(f) a certificate of release to service may not be issued under these circumstances.

AMC 145.55(a)

Maintenance records

1 Properly executed and retained records provide owners, operators and maintenance personnel with information essential in controlling unscheduled and scheduled maintenance, and trouble shooting to eliminate the need for re-inspection and rework to establish airworthiness. As a minimum, records necessary to prove all requirements have been met for issuance of the certificate of release to service including sub-contractor’s release documents should be retained. The prime objective is to have secure and easily retrievable records with comprehensive and legible contents. The aircraft record should contain basic details of all serialised aircraft components and all other significant aircraft components installed, to ensure traceability to such installed aircraft component documentation and associated MCAR-145.45 maintenance data.
2 Some gas turbine engines are assembled from modules and a true total time in service for a total engine is not kept. When owners and operators wish to take advantage of the modular design, then total time in service and maintenance records for each module is to be maintained. The maintenance records as specified are to be kept with the module and should show compliance with any mandatory requirements pertaining to that module.

3 Reconstruction of lost or destroyed records can be done by reference to other records which reflect the time in service, research of records maintained by repair facilities and reference to records maintained by individual mechanics, etc. When these things have been done and the record is still incomplete, the owner/operator may make a statement in the new record describing the loss and establishing the time in service based on the research and the best estimate of time in service. The reconstructed records should be submitted to the Authority for acceptance.

Note: Additional maintenance may be required.

4 The maintenance record can be either a paper or computer system or any combination of both.

5 Paper systems should use robust material which can withstand normal handling and filing. The record should remain legible throughout the required retention period.

6 Computer systems may be used to control maintenance and/or record details of maintenance work carried out. Computer systems used for maintenance should have at least one backup system which should be updated at least within 24 hours of any maintenance. Each terminal is required to contain programme safeguards against the ability of unauthorised personnel to alter the database.

IEM 145.55(b)

Maintenance records

A self-explanatory paragraph that requires the MCAR-145 organisation to give the operator the certificate of release to service including basic details of maintenance carried out, whereas MCAR-145.55(c) requires the MCAR-145 organisation to retain the record of all maintenance.

AMC 145.55(c)

Maintenance records
1. The records should be stored in a safe way with regard to fire, flood and theft.

2. Computer backup discs, tapes, etc. should be stored in a different location from that containing the working discs, tapes, etc., in an environment that ensures they remain in good condition.

3. Where a MCAR-145 organisation terminates its operation, all retained maintenance records covering the last 2 years should be distributed to the last operator/customer of the respective aircraft or component. If it is impossible to trace the operator/customer, the maintenance records should be stored as required by the Authority.

**IEM 145.60(a)**

**Reporting of unairworthy conditions**

In respect of the MCAR-145 organisation, a condition that could seriously hazard the aircraft is normally limited to:

(a) Serious cracks, permanent deformation, burning or serious corrosion of structure found during scheduled maintenance of the aircraft or engine or propeller or helicopter rotor system.

(b) Failure of any emergency system during scheduled testing.

Note: (1) The AOC Requirements will cover other conditions to be reported by the operator.

(2) Reserved.

**IEM 145.65(a)**

**Maintenance procedures and quality system (Quality policy)**

One example of a typical quality policy can be found in IEM 145.70(a)(10).
AMC 145.65(b)

Maintenance procedures and quality system (Maintenance procedures)

1 The maintenance procedures should cover all aspects of carrying out the maintenance activity including the provision and control of specialised services and in reality lay down the standards to which the MCAR-145 approved maintenance organisation intends to work. Such standards need at a minimum to be those required by MCAR-145.

2 Specialised services includes any specialised activity, such as, but not limited to Non-Destructive Testing requiring particular skills and/or qualification. Requirements published by the Authority on qualifications of personnel should be followed, and in addition, there is a need to establish maintenance procedures that cover the control of any specialised process.

3 Appendix 5 contains a procedure for subcontracting that meets the intent of part of MCAR-145.1(c), (d) and (f) as specified in AMC-145.1.

4 In the case of aircraft line and base maintenance, procedures should be established to ensure that no one person be required to carry out and inspect in relation to a maintenance task involving some element of disassembly / reassembly of several aircraft components of the same type fitted to more than one system on the same aircraft during a particular maintenance check. The purpose of this procedure is to minimise the rare possibility of an error being repeated whereby the identical aircraft components are not reassembled thereby compromising more than one system. One example is the remote possibility of failure to reinstall engine gearbox access covers or oil filler caps on all engines of a multi-engined aircraft resulting in major oil loss from all engines.

The referenced procedure, if applicable, should be specified in the Maintenance Organisation Exposition.

5 The maintenance procedures should address MCAR-145.25 to MCAR-145.95 inclusive as also specified in MCAR-145.70 (a)(11) and sub-paragraphs (1) to (4) inclusive. The Appendix 2 example exposition contains typical procedures that, where appropriate, should be addressed.

6 A MCAR-145 approved maintenance organisation in carrying out maintenance will find that modifications and/or repairs constitute part of that maintenance. Some modifications and repairs may involve the fabrication of some aircraft components. Fabrication for modification and repair purposes under the MCAR-145 approval may be accepted subject to the following limitations:
AMC 145.65(c)(1)

Maintenance procedures and quality system (Quality audits)

1 The primary objectives of the quality system are to enable the MCAR-145 approved maintenance organisation to ensure that it can deliver a safe product and that the MCAR-145 approved maintenance organisation remains in compliance with the requirements.

2 An essential element of the quality system is the independent audit.

3 The independent audit is an objective process of routine sample checks of all aspects of the MCAR-145 approved maintenance organisation’s ability to carry out all maintenance to the required standards and includes some product sampling as this is the end result of the maintenance process. It represents an objective overview of the complete maintenance related activities and is intended to complement the MCAR-145.50 (a) requirement for certifying staff to be satisfied that all required maintenance has been properly carried out before issue of the certificate of release to service. Independent audits should include a percentage of random audits carried out on a sample basis when maintenance is being carried out. This means some audits during the night for those organisations that work at night.

4 Except as specified in sub-paragraphs 7 and 9, the independent audit should ensure that all aspects of MCAR-145 compliance are checked every 12 months and may be carried out as a complete single exercise or subdivided over the 12 month period in accordance with a scheduled plan. The independent audit does not require each procedure to be checked against each product line when it can be shown that the particular procedure is common to more than one product line and the procedure has been checked every 12 months without resultant findings. Where findings have been
identified, the particular procedure should be rechecked against other product lines
until the findings have been rectified after which the independent audit procedure may
revert back to 12 monthly for the particular procedure.

5  Except as specified otherwise in sub-paragraphs 7, the independent audit should
sample check one product on each product line every 12 months as a demonstration of
the effectiveness of maintenance procedures compliance. It is recommended that
procedures and product audits be combined by selecting a specific product example,
such as an aircraft or engine or instrument and sample checking all the procedures and
requirements associated with the specific product example to ensure that the end
result should be an airworthy product.

For the purpose of the independent audit a product line includes any product under an
Appendix 1 approval class rating as specified in the MCAR-145 approval schedule
issued to the particular organisation.

It therefore follows for example that a MCAR-145 approved maintenance
organisation with a capability to maintain aircraft, repair engines, brakes and
autopilots would need to carry out 4 complete audit sample checks each year except
as specified otherwise in subparagraphs 5, 7 or 9.

6  The sample check of a product means to witness any relevant testing and visually
inspect the product and associated documentation. The sample check should not
involve repeat disassembly or testing unless the sample check identifies findings
requiring such action.

7  Except as specified otherwise in sub-paragraph 9, if a MCAR-145 approved
maintenance organisations falling under the category of a “smallest MCAR-145
approved maintenance organisation” chooses to contract the independent audit
element of the quality system in accordance with MCAR-145.65 (c)(1), it is
conditional on the audit being carried out twice in every 12 month period.

8  Except as specified otherwise in sub-paragraph 9, where the MCAR-145 approved
maintenance organisation has line stations listed as per MCAR-145.75 (d) the quality
system should describe how these are integrated into the system and include a plan to
audit each listed line station at a frequency consistent with the extent of flight activity
at the particular line station. Except as specified otherwise in sub-paragraph 9 the
maximum period between audits of a particular line station should not exceed 24
months.

9  Except as specified otherwise in sub-paragraph 5, the Authority may agree to allow
the MCAR-145 approved maintenance organisation to increase any of the audit time
periods specified in this AMC145.65(c)(1) by up to 100% provided that there are no
safety related findings and subject to being satisfied that the MCAR-145 approved
maintenance organisation has a good record of rectifying findings in a timely manner.
10 A report should be raised each time an audit is carried out describing what was checked and the resulting findings against applicable requirements, procedures and products.

11 The independence of the audit should be established by always ensuring that audits are carried out by personnel not responsible for the function, procedure or products being checked. It therefore follows that a MCAR-145 approved maintenance organisation should have a dedicated quality group whose functions include conducting audits, raising finding reports and following up to check that findings are being rectified. In addition, the MCAR-145 approved maintenance organisation may use competent personnel from one section/department not responsible for the production function, procedure or product to audit the section/department that is responsible subject to the overall planning and implementation being under the control of the quality manager.

The smallest MCAR-145 approved maintenance organisations may contract the independent audit element of the quality system to another MCAR-145 approved maintenance organisation or a competent person acceptable to the Authority.

12 The referenced procedure should be specified in the Maintenance Organisation Exposition.

AMC 145.65(c)(2)

Maintenance procedures and quality system (Quality feedback)

1 An essential element of the quality system is the quality feedback system.

2 The quality feedback system may not be contracted to outside persons. The principal function of the quality feedback system is to ensure that all findings resulting from the independent quality audits of the organisation are properly investigated and corrected in a timely manner and to enable the accountable manager to be kept informed of any safety issues and the extent of compliance with MCAR145.

3 The independent quality audit reports referenced in AMC 145.65(c)(1) sub-paragraph 10 should be sent to the relevant department(s) for rectification action giving target rectification dates. Rectification dates should be discussed with such department(s) before the quality department or nominated quality auditor confirms such dates in the report. The relevant department(s) are required by MCAR-145.65 (c)(2) to rectify findings and inform the quality department or nominated quality auditor of such rectification.
The accountable manager should hold regular meetings with staff to check progress on rectification except that in the large organisations such meetings may be delegated on a day to day basis to the quality manager subject to the accountable manager meeting at least twice per year with the senior staff involved to review the overall performance and receiving at least a half yearly summary report on findings of non-compliance.

All records pertaining to the independent quality audit and the quality feedback system should be retained for at least 2 years after the date of clearance of the finding to which they refer or for such periods as to support changes to the AMC-145.65(c)(1) sub-paragraph 9 audit time periods, whichever is the longer.

The referenced procedure should be specified in the Maintenance Organisation Exposition.

**IEM 145.70(a)**

**Maintenance organisation exposition**

1. The purpose of the Maintenance Organisation Exposition (MOE) is to set forth the procedures, means and methods of the MCAR-145 approved maintenance organisation.

2. Compliance with its contents will assure compliance with the MCAR-145 requirements, which is a prerequisite to obtaining and retaining an approved maintenance organisation certificate.

3. MCAR-145.70(a)(1) to (a)(11) constitutes the ‘management’ part of the exposition and therefore should be made available to the MCAR-145.30(a) person(s) who should be reasonably familiar with its contents. MCAR-145.70(a)(6) List of Certifying Staff and MCAR-145.70(a)(9) scope of work (such as a capability list) may be produced as a separate document subject to the agreement of the Authority.

4. MCAR-145.70(a)(12) constitutes the working procedures of the organisation and therefore as stated in the requirement may be produced as any number of separate procedures manuals. It should be remembered that these documents should be cross-referenced from the management MOE.

5. Personnel are expected to be familiar with those parts of the manuals that are relevant to the maintenance work they carry out.

6. The MCAR-145 approved maintenance organisation will need to specify in the MOE who should amend the manual particularly in the case where there are several parts.
7 The Quality Manager should be responsible for monitoring the amendment of the MOE, unless otherwise agreed by the Authority, including associated procedures manuals and submission of the proposed amendments to the Authority unless the Authority has agreed via a procedure stated in the amendment section of the exposition that some defined class of amendments may be incorporated without prior Authority approval.

8 In reality, therefore, the exposition has to cover four main parts:

(a) The management MOE covering the parts specified earlier.

(b) The maintenance procedures covering all aspects of how aircraft components may be accepted from outside sources and how aircraft will be maintained to the required standard.

(c) The quality system procedures including the methods of qualifying mechanics, inspectors, certifying staff and quality audit personnel.

(d) Contracted aircraft operators’ procedures and paperwork.

9 The accountable manager’s MCAR-145.70(a)(1) exposition statement should embrace the intent of the following paragraph and in fact this statement may be used without amendment. Any modification to the statement should not alter the intent.

“This exposition and any associated referenced manuals define the organisation and procedures upon which the Civil Aviation Authority of Mauritius (DCA) MCAR-145 approval is based as required by MCAR-145.70. These procedures are approved by the undersigned and must be complied with, as applicable, when work/orders are being progressed under the terms of the MCAR-145 approval.

It is accepted that these procedures do not override the necessity of complying with any new or amended regulation published by the DCA from time to time where these new or amended regulations are in conflict with these procedures.

It is understood that the DCA will approve this organisation whilst the DCA is satisfied that the procedures are being followed and work standards maintained. It is further understood that the DCA reserves the right to suspend, limit or revoke the MCAR-145 approval of the organisation if the DCA has evidence that procedures are not followed or standards not upheld.

Signed ………………………

Dated……………………

Accountable Manager and ……………………… (quote position)

For and on behalf of ……………………… (quote organisation’s name)’’
Whenever the accountable manager changes it is important to ensure that the new accountable manager signs the paragraph 9 statement at the earliest opportunity as part of the acceptance by the Authority.

Failure to carry out this action could invalidate the MCAR-145 Approval.

10 The MCAR-145.65(a) quality policy should embrace the intent of the following paragraph:

“Only by providing the standard of quality and service demanded by our customers, and constantly striving to maintain and improve the standard, can we continue to be a respected provider of services.

The basic quality requirements to achieve the standard are laid down in the exposition. Quality standards are the responsibility of all personnel and it is the duty of all personnel to comply with this policy, to strive to both maintain and improve quality standards at every opportunity.”

11 When an organisation holds other DCA approvals which contains a requirement for an exposition, a supplement covering the differences will suffice to meet the requirements except that the supplement must have an index showing where the common parts are covered.

12 MCAR-145 approved maintenance organisations located in Mauritius should use the exposition format prescribed in Appendix 2, however, additional supplements addressing the requirements of another authority may be permitted to be included in the maintenance organisation exposition.

13 However, organisations located outside Mauritius approved by another authority against the regulations of that authority (such as the FAA/EASA OR National Authority) may use a common exposition provided that all MCAR-145 requirements are met and the ‘management’ part of the MCAR-145.70 maintenance organisation exposition be addressed in a unique section of the common exposition. Differences between the MCAR-145 requirements and the requirements of the other authority/authorities should be identified and indicated. The common exposition should have an index showing where those parts pertaining to the MCAR-145 are covered.

IEM 145.80

Limitations on the approved maintenance organisation

This paragraph is intended to cover the situation where the larger MCAR-145 organisation may temporarily not hold all the necessary tools, equipment, etc. for an aircraft type or variant specified in the organisation’s approval. This paragraph means that the Authority need not amend the approval to delete the aircraft type or variants on the basis that it is a
temporary situation and there is a commitment from the organisation to re-acquire tools, equipment, etc. before maintenance on the type may recommence.

**IEM 145.85**

**Changes to the approved maintenance organisation**

The primary purpose of this paragraph is to enable the MCAR-145 organisation to remain approved if agreed with the Authority during negotiations about any of the specified changes. Without this paragraph the approval would automatically be suspended in all cases.

**IEM 145.95**

**Equivalent safety case**

Once a MCAR-145.95(a) equivalent safety case has been accepted by the Authority, such equivalent safety cases may be published as amended MCARs, AMCs, IEMs or Advisory Circulars.
ORGANISATIONS APPROVAL CLASS AND RATING SYSTEM

1  Except as stated otherwise for the smallest MCAR-145 approved maintenance organisations in paragraph 13, Table 1 outlines the full extent of approval possible under MCAR-145 in a standardised form. An organisation may be granted an approval ranging from a single class and rating with limitations to all classes and ratings with limitations.

2  In addition to Table 1 the MCAR-145 approved maintenance organisation is required by MCAR-145.20 to indicate scope of work in the maintenance organisation exposition. MCAR-145.70(a)(9) also refers to the same scope of work and it should be noted that a capability list is deemed to be one form of scope of work. See also paragraph 10.

3  Within the approval class(es) and rating(s) granted by the Authority, the scope of work specified in the maintenance organisation exposition defines the exact limits of approval. It is therefore essential that the approval class(es) and rating(s) and the organisations scope of work are compatible.

4  **Category A class rating**

   (a)  The MCAR-145 approved maintenance organisation may carry out maintenance on the aircraft and any component (including engines/APUs) only whilst such components are fitted to the aircraft, except that such components can be temporarily removed for maintenance when such removal is expressly permitted by the aircraft maintenance manual to improve access for maintenance subject to a control procedure in the maintenance organisation exposition acceptable to the Authority.

   (b)  The limitation section will specify the scope of such maintenance thereby indicating the extent of approval.

   (c)  Category A class ratings are subdivided into 'Base' or 'Line' maintenance. A MCAR-145 approved maintenance organisation may be approved for either 'Base' or 'Line' maintenance or both. It should be noted that a 'Line' facility located at a main base facility requires a 'Line' maintenance approval.

5  **Category B class rating**

   (a)  The MCAR-145 approved maintenance organisation may carry out maintenance on the uninstalled engine/APU and engine/APU components only whilst such components are fitted to the engine/APU except that such components can be temporarily removed for maintenance when such removal
is expressly permitted by the engine/APU manual to improve access for maintenance.

(b) The limitation section will specify the scope of such maintenance thereby indicating the extent of approval.

(c) A MCAR-145 approved maintenance organisation with a category B class rating may also carry out maintenance on an installed engine during 'base' and 'line' maintenance subject to a control procedure in the maintenance organisation exposition acceptable to the Authority. The maintenance organisation exposition scope of work should reflect such activity where permitted by the Authority.

6 Category C class rating

(a) The MCAR-145 approved maintenance organisation may carry out maintenance on uninstalled components (excluding engines and APUs) intended for fitment to the aircraft or engine/APU.

(b) The limitation section will specify the scope of such maintenance thereby indicating the extent of approval.

(c) Table 2 identifies the ATA specification 100 chapter for the category C component rating.

(d) A MCAR-145 approved maintenance organisation with a category C class rating may also carry out maintenance on an installed component during base and line maintenance or at an engine/APU maintenance facility subject to a control procedure in the maintenance organisation exposition acceptable to the Authority. The maintenance organisation exposition scope of work should reflect such activity where permitted by the Authority.

7 Category D class rating

(a) This is a self contained class rating not necessarily related to a specific aircraft, engine or other component.

(b) The D1 - Non Destructive Testing (NDT) and D2 – Other Specialised Services ratings are only necessary for a MCAR-145 approved maintenance organisation that carries out NDT or other specialised services as a particular task for another organisation.

(c) A MCAR-145 approved maintenance organisation with a class rating in A or B or C category may carry out NDT or other specialised services on products it is maintaining subject to the maintenance organisation exposition containing relevant procedures, without the need for a D class rating.

8 Reserved
9 **Reserved**

10 The 'limitation' section is intended to give the Authority maximum flexibility to customise the approval to a particular organisation. Table 1 specifies the types of limitation possible and whilst maintenance is listed last in each class rating it is acceptable to stress the maintenance task rather than the aircraft or engine type or manufacturer, if this is more appropriate to the organisation. An example could be avionic systems installations and maintenance.

11 Table 1 makes reference to series, type and group in the limitation section of class A and B. Series means a specific type series such as Airbus 300 or 310 or 319 or Boeing 737-300 series or RB211-524 series etc. Type means a specific type or model such as Airbus 310-240 type or RB 211-524 B4 type etc. Any number of series or types may be quoted. Group means for example Cessna single piston engine aircraft or Lycoming non-supercharged piston engines etc.

12 When a lengthy capability list is used which could be subject to frequent amendment, then such amendment should be in accordance with a procedure acceptable to the Authority and included in the maintenance organisation exposition. The procedure should address the issues of who is responsible for capability list amendment control and the actions that need to be taken for amendment. Such actions include ensuring compliance with MCAR-145 for products or services added to the list.

13 The smallest MCAR-145 approved maintenance organisations can only hold a limited scope of approval

<table>
<thead>
<tr>
<th>CLASS</th>
<th>RATING</th>
<th>LIMITATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIRCRAFT</td>
<td>A2 AEROPLANES</td>
<td>PISTON ENGINED LINE &amp; BASE 5700 KG AND BELOW</td>
</tr>
<tr>
<td>AIRCRAFT</td>
<td>A2 AEROPLANES</td>
<td>TURBINE ENGINED LINE 5,700 KG AND BELOW</td>
</tr>
<tr>
<td>AIRCRAFT</td>
<td>A3 HELICOPTERS</td>
<td>SINGLE ENGINED LINE &amp; BASE 2,730 KG AND BELOW</td>
</tr>
<tr>
<td>ENGINES</td>
<td>B2 PISTON</td>
<td>LESS THAN 450 HP</td>
</tr>
<tr>
<td>COMPONENTS OTHER THAN COMPLETE ENGINES OR APU</td>
<td>C1 TO C20</td>
<td>AS PER CAPABILITY LIST</td>
</tr>
<tr>
<td>SPECIALISED</td>
<td>D1 NDT</td>
<td>NDT METHODS TO BE SPECIFIED</td>
</tr>
<tr>
<td>SPECIALISED</td>
<td>D2 SPECIALISED</td>
<td>SPECIALISED SERVICES TO SERVICES BE SPECIFIED</td>
</tr>
</tbody>
</table>
It should be noted that such an organisation may be further limited by the Authority in the scope of approval dependent upon the capability of the particular organisation.
<table>
<thead>
<tr>
<th>Class</th>
<th>Rating</th>
<th>Limitation</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIRCRAFT</td>
<td>A1 Aeroplanes above 5,700 kg</td>
<td>Will state aeroplane series or type and/or type and/or the maintenance task(s)</td>
</tr>
<tr>
<td></td>
<td>A2 Aeroplanes 5,700 kg and below</td>
<td>Will state aeroplane manufacturer or group or series or type and/or the maintenance task(s)</td>
</tr>
<tr>
<td></td>
<td>A3 Helicopters</td>
<td>Will state helicopter manufacturer or group or series or type and/or the maintenance task(s)</td>
</tr>
<tr>
<td>ENGINES</td>
<td>B1 Turbine</td>
<td>Will state engine series or type and/or the maintenance task(s)</td>
</tr>
<tr>
<td></td>
<td>B2 Piston</td>
<td>Will state engine manufacturer or group or series or type and/or the maintenance task(s)</td>
</tr>
<tr>
<td></td>
<td>B3 Auxiliary Power Unit</td>
<td>Will state engine manufacturer or series or type and/or the maintenance task(s)</td>
</tr>
<tr>
<td>COMPONENTS OTHER THAN COMPLETE</td>
<td>C1 Air cond &amp; press</td>
<td>Will state aircraft type or aircraft manufacturer or component manufacturer or particular component and/or cross refer to a capability list in the exposition and/or the maintenance task(s)</td>
</tr>
<tr>
<td></td>
<td>C2 Auto flight</td>
<td></td>
</tr>
<tr>
<td>ENGINES OR APU</td>
<td>C3 Comms &amp; navigation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>C4 Doors – hatches</td>
<td></td>
</tr>
<tr>
<td></td>
<td>C5 Electrical Power</td>
<td></td>
</tr>
<tr>
<td></td>
<td>C6 Equipment</td>
<td></td>
</tr>
<tr>
<td></td>
<td>C7 Engine / APU</td>
<td></td>
</tr>
<tr>
<td></td>
<td>C8 Flight Controls</td>
<td></td>
</tr>
<tr>
<td></td>
<td>C9 Fuel - Airframe</td>
<td></td>
</tr>
<tr>
<td></td>
<td>C10 Helicopter - rotors</td>
<td></td>
</tr>
<tr>
<td></td>
<td>C11 Helicopter - trans</td>
<td></td>
</tr>
<tr>
<td></td>
<td>C12 Hydraulic</td>
<td></td>
</tr>
<tr>
<td></td>
<td>C13 Instruments</td>
<td></td>
</tr>
<tr>
<td></td>
<td>C14 Landing Gear</td>
<td></td>
</tr>
<tr>
<td></td>
<td>C15 Oxygen</td>
<td></td>
</tr>
<tr>
<td></td>
<td>C16 Propellers</td>
<td></td>
</tr>
<tr>
<td></td>
<td>C17 Pneumatic</td>
<td></td>
</tr>
<tr>
<td></td>
<td>C18 Protection ice/rain/fire</td>
<td></td>
</tr>
<tr>
<td></td>
<td>C19 Windows</td>
<td></td>
</tr>
<tr>
<td></td>
<td>C20 Structures</td>
<td></td>
</tr>
<tr>
<td>SPECIALISED SERVICES</td>
<td>D1 Non Destructive Testing</td>
<td>Will state particular NDT method(s)</td>
</tr>
<tr>
<td>DISTRIBUTOR (SUB-PART D)</td>
<td>MD1 General aeronautical parts</td>
<td>(excluding MD2)</td>
</tr>
<tr>
<td></td>
<td>MD2 Special aeronautical parts</td>
<td>(e.g. life limited parts)</td>
</tr>
<tr>
<td>CLASS</td>
<td>RATING</td>
<td>ATA CHAPTERS</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>------------------------</td>
<td>-----------------------------------</td>
</tr>
<tr>
<td>COMPONENTS OTHER THAN COMPLETE ENGINES OR APUs</td>
<td>C1 Air cond &amp; press</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>C2 Auto flight</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>C3 Comms &amp; navigation</td>
<td>23, 34</td>
</tr>
<tr>
<td></td>
<td>C4 Doors – hatches</td>
<td>52</td>
</tr>
<tr>
<td></td>
<td>C5 Electrical Power</td>
<td>24, 33</td>
</tr>
<tr>
<td></td>
<td>C6 Equipment</td>
<td>25, 38, 44, 45</td>
</tr>
<tr>
<td></td>
<td>C7 Engine / APU</td>
<td>49, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83</td>
</tr>
<tr>
<td></td>
<td>C8 Flight Controls</td>
<td>27, 55, 57.40, 57.50, 57.60, 57.70</td>
</tr>
<tr>
<td></td>
<td>C9 Fuel - Airframe</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>C10 Helicopter - rotors</td>
<td>62, 64, 66, 67</td>
</tr>
<tr>
<td></td>
<td>C11 Helicopter - trans</td>
<td>63, 65</td>
</tr>
<tr>
<td></td>
<td>C12 Hydraulic</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>C13 Instruments</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>C14 Landing Gear</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td>C15 Oxygen</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>C16 Propellers</td>
<td>61</td>
</tr>
<tr>
<td></td>
<td>C17 Pneumatic</td>
<td>36, 37</td>
</tr>
<tr>
<td></td>
<td>C18 Protection ice/rain/fire</td>
<td>26, 30</td>
</tr>
<tr>
<td></td>
<td>C19 Windows</td>
<td>56</td>
</tr>
<tr>
<td></td>
<td>C20 Structures</td>
<td>53, 54, 57.10, 57.20, 57.30</td>
</tr>
</tbody>
</table>
SECTION 2
APPENDIX 2 MAINTENANCE ORGANISATION EXPOSITION

The exposition should contain the information, as applicable, specified in this Appendix. The information may be presented in any subject order so long as all applicable subjects are covered. Where an organisation uses a different format, for example, to allow the exposition to serve for more than one DCA approval, then the exposition should contain a cross reference Annex using this list as an index with an explanation as to where in the exposition the subject matter can be found. Small MCAR-145 approved maintenance organisations may combine the various items to form a simple exposition more relevant to their needs.

To facilitate the tracking of changes, each page should be identified by the part number, page number, date of issue or date of latest amendment, and amendment number (if applicable). The latest amendment on a page should be highlighted by marginal lines against the amended areas on the left hand side of the page.

The exposition should be in English or include an English translation.

PART 1 MANAGEMENT

1.1 Brief description and history of the company
1.2 Corporate commitment by the accountable manager.
1.3 Quality policy.
1.4 Management personnel.
1.5 Duties and responsibilities of the management personnel.
1.6 Management organisation chart.
1.7 List of certifying staff.
1.8 Manpower resources.
1.9 General description of the facilities at each address intended to be approved.
1.10 Organisation’s intended scope of work (such as a capability list).
1.11 Notification procedure to the Authority regarding changes to the organisation’s activities/approval/location/personnel.
1.12 Exposition amendment procedures including, if applicable, delegated procedures.

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PART 2 MAINTENANCE PROCEDURES

2.1 Supplier evaluation and subcontract control procedure.
2.2 Acceptance/inspection of aircraft components and material from outside contractors.
2.3 Storage, tagging and release of aircraft components and material to aircraft maintenance.
2.4 Acceptance of tools and equipment (including alternate tools).
2.5 Calibration of tools and equipment.
2.6 Use of tooling and equipment by staff (including alternate tools).
2.7 Cleanliness standards of maintenance facilities.
2.8 Maintenance instructions and relationship to aircraft/aircraft component manufacturers' instructions including updating and availability to staff.
2.9 Repair procedure.
2.10 Aircraft maintenance programme compliance.
2.11 Airworthiness Directives procedure.
2.12 Optional modification procedure.
2.13 Maintenance documentation in use and its completion.
2.14 Technical records control.
2.15 Rectification of defects arising during base maintenance.
2.16 Release to service procedure.
2.17 Records for the AOC operator.
2.18 Reporting of defects to the Authority / Operator / Manufacturer.
2.19 Return of defective aircraft components to store.
2.20 Defective components to outside contractors.
2.21 Control of computer maintenance record systems.
2.22 Control of man-hour planning against scheduled maintenance work.

2.23 Control of critical tasks per AMC 145.65 (b)(4).

2.24 Reference to specific maintenance procedures such as Engine running procedures, Aircraft pressure run procedures, Aircraft towing procedures.

PART L2

ADDITIONAL LINE MAINTENANCE PROCEDURES

L2.1 Line maintenance control of aircraft components, tools, equipment etc. L2.2 Line maintenance procedures related to servicing/fuelling/de-icing etc. L2.3 Line maintenance control of defects and repetitive defects. L2.4 Line procedure for completion of technical log.

L2.5 Line procedure for pooled parts and loan parts. L2.6 Line procedure for return of defective parts removed from aircraft. L2.7 Line procedure control of critical tasks per AMC-145.65 (b)(4).

PART 3

QUALITY SYSTEM PROCEDURES

3.1 Quality audit of organisation procedures.

3.2 Quality audit of aircraft and aircraft components.

3.3 Quality audit remedial action procedure.

3.4 Certifying staff qualification and training procedures.

3.5 Certifying staff records.

3.6 Quality audit personnel.

3.7 Qualifying inspectors.

3.8 Qualifying mechanics.

3.9 Aircraft or aircraft component maintenance tasks exemption process control.

3.10 Concession control for deviation from organisations' procedures.

3.11 Qualification procedure for specialised activities such as NDT, welding etc.
3.12 Control of manufacturers' and other maintenance working teams.

PART 4

CONTRACTED AOC OPERATORS

4.1 Contracted AOC operators.

4.2 AOC operator procedures and paperwork.

4.3 AOC operator record completion.

4.4 Procedures for issuing the one-off authorisation as per 145.30(h)(5), if nominated by the operator.

PART 5

APPENDICES

5.1 Samples of documents.

5.2 List of suppliers

5.3 List of Sub-contractors as per MCAR-145.75 (b).

5.4 List of Line maintenance locations as per MCAR-145.75 (d).

5.5 List of contracted MCAR-145 organisations as per MCAR-145.70(a)(16).

PART 6

AOCR MAINTENANCE PROCEDURES

This section is reserved for those MCAR-145 approved maintenance organisations who are also AOC operators. The details of such procedures can be found in Chapter 8 of the AOCR.
SECTION 2

APPENDIX 3

THE AUTHORISED RELEASE CERTIFICATE – FORM DCA AWF 95

1 INTRODUCTION

1.1 This appendix only covers the use of form DCA AWF 95 for maintenance purposes. Use of the ARC for manufacture is covered in Section 4 of the Mauritius Airworthiness Requirements.

2 PURPOSE AND SCOPE

2.1 The purpose of the Certificate is to release assemblies/items/components/parts (hereafter referred to as “item(s)”) after manufacture and to release maintenance work carried out on such items under the approval of the Department of Civil Aviation of Mauritius (DCA) to allow items removed from one aircraft/aircraft component to be fitted to another aircraft/aircraft component.

2.2 The Certificate referenced form DCA AWF 95 is called the authorised release certificate (ARC).

2.3 The Certificate is to be used for export/import purposes, as well as for domestic purposes, and serves as an official certificate for items from the manufacturer/maintenance organisation to users. The certificate is not a delivery or shipping note.

2.4 It can only be issued by organisations approved by the Authority within the scope of the approval or by the Authority itself.

2.5 The Certificate may be used as a rotatable tag by utilising the available space on the reverse side of the Certificate for any additional information and despatching the item with two copies of the Certificate so that one copy may be eventually returned with the item to the maintenance organisation. The alternative solution is to use existing rotatable tags and also supply a copy of the Certificate.

2.6 Under no circumstances may a certificate be issued for any item when it is known that the item has a defect considered a serious hazard to flight safety.

2.7 A Certificate should not be issued for any item when it is known that the item is unserviceable except in the case of an item undergoing a series of maintenance processes at several MCAR-145 approved maintenance organisations and the item needs a Certificate for the previous maintenance process carried out for the next MCAR-145 approved maintenance organisation to accept the item for subsequent
maintenance processes. As mentioned for Block 13, a clear statement of limitation should be endorsed in Block 13.

2.8 Aircraft may not be released using the Certificate.

3 GENERAL

3.1 The Certificate must comply with the format attached including block numbers in that each block must be located as per the layout. The size of each block may however be varied to suit the individual application, but not to the extent that would make the Certificate unrecognisable. The overall size of the Certificate may be significantly increased or decreased so long as the certificate remains recognisable and legible. If in doubt consult the Authority.

3.2 All printing must be clear and legible to permit easy reading.

3.3 The Certificate must either be pre-printed or computer generated but in either case the printing of lines and characters must be clear and legible. Pre-printed wording is permitted in accordance with the attached model but no other certification statements are permitted.

3.4 Completion of the Certificate shall be in English.

3.5 The details to be entered on the Certificate can be either machine/computer printed or handwritten using block letters and should permit easy reading.

3.6 Abbreviations should be restricted to a minimum.

3.7 The space remaining on the reverse side of the Certificate may be used by the originator for any additional information but must not include any certification statement.

3.8 The original Certificate should accompany the items and correlation should be established between the Certificate and the items. A copy of the Certificate must be retained by the organisation that manufactured or maintained the item. Where the Certificate format and data is entirely computer generated, subject to acceptance by the Authority it is permissible to retain the Certificate format and data on a secure database.

Note: There is no restriction in the number of copies of the Certificate sent to the customer or retained by the originator.

3.9 The Certificate that accompanies the item may be attached to the item by being placed in an envelope for durability.
4 COMPLETION OF THE RELEASE CERTIFICATE BY THE ORIGINATOR

Except as otherwise stated, there must be an entry in all blocks to make the document a valid certificate.

Block 1 Pre-printed “MAURITIUS”.

Block 2 Pre-printed as shown in the sample copy of the Certificate.

Block 3 A unique number should be pre-printed in this block for Certificate control and traceability purposes except that in the case of a computer generated document, the unique number need not be pre-printed where the computer is programmed to produce the number.

Block 4 The full name and address plus mailing address if different of the approved organisation releasing the items covered by this Certificate. This block may be preprinted. Logos, etc., are permitted if the logo can be contained within the block.

Block 5 The purpose of this block is to reference work order/contract/invoice or any other internal organisational process such that a fast traceability system can be established.

Block 6 This block is provided for the convenience of the organisation issuing the Certificate to permit easy cross-reference to the “Remarks” Block 13 by the use of item numbers. Completion is not mandatory. Where a number of items are to be released on the Certificate, it is permissible to use a separate listing cross-referring Certificate and list to each other. The total number of pages of the list should be reflected in the Certificate. The list should also be properly paginated and each page must bear the endorsement of the originator.

Block 7 The name or description of the item shall be given. Preference should be given to use of the Illustrated Parts Catalogue (IPC) designation.

Block 8 State the part number. Preference shall be given to use of the IPC number designation.

Block 9 Used to indicate the type-approved products for which the released items are eligible for installation. Completion of block is optional but if used, the following entries are permitted:

(a) The specific or series aircraft, engine, propeller, or auxiliary power unit model, or a reference to a readily available catalogue or manual which contains such information. For example: “A300”.
(b) “Various”, if known to be eligible for installation on more than one model of type-approved product, unless the originator wishes to restrict usage to a particular model installation when it should so state.

(c) “Unknown”, if eligibility is unknown, this category being primarily for use by maintenance organisations.

Note: Any information in block 9 does not constitute authority to fit the item to a particular aircraft, engine, propeller or auxiliary power unit. The User/Installer must confirm via documents such as the Parts Catalogue, Service Bulletins etc., that the item is eligible for the particular installation.

Block 10  State the number of items being released.

Block 11  State the item Serial Number and/or Batch Number if applicable, if neither is applicable, state “N/A”.

Block 12  The following words in quotation marks, with their definitions, indicate the status of the item being released. One or a combination of these words shall be stated in this block:

1  “OVERHAULED” The restoration of a used item by inspection, test and replacement in conformity with an approved standard to extend the operational life.

2  “INSPECTED/TESTED” The examination of an item to establish conformity with an approved standard.

3  “MODIFIED” The alteration of an item in conformity with an approved standard.

4  “REPAIRED” The restoration of an item to a serviceable condition in conformity with an approved standard.

5  “RETREADED” The restoration of a used tyre in conformity with an approved standard.

6  “REASSEMBLED” The reassembly of an item in conformity with an approved standard.

The above statements must be supported by reference in Block 13 to the approved data/manual/specification used during maintenance.
Block 13  It is mandatory to state any information in this block either directly or by reference to supporting documentation that identifies particular data or limitations relating to the items being released that are necessary for the User/Installer to make the final airworthiness determination of the item. Information should be clear, complete, and provided in a form and manner which is adequate for the purpose of making such a determination.

Each statement must be clearly identified as to which item it relates. If there is no statement, state “None”.

Some examples of the information to be quoted are as follows:

- The identity and revision/issue of maintenance documentation used as the approved standard
- Airworthiness Directives carried out and/or found carried out, as appropriate
- Repairs carried out and/or found carried out, as appropriate
- Modifications carried out and/or found carried out, as appropriate
- Replacement parts installed and/or parts found installed, as appropriate
- Deviations from customer work order
- Identity of national regulation if not MCAR-145
- Usage restriction for repaired items
- Concessions applicable
- Life limited parts history
- Exceptions to the notified special requirements of the importing country
- Release statements to satisfy a foreign maintenance requirement
- Release statements to satisfy the conditions of an international maintenance agreement such as, but not limited to, the Technical Arrangement on Aviation Maintenance with Transport Canada
Note: The latter two statements allow the possibility of dual release against both MCAR-145 and a foreign maintenance requirement or the single release by a MCAR-145 approved maintenance organisation against a foreign maintenance requirement.

However care should be exercised to tick the relevant box(es) in Block 19 to validate the release. It should also be noted that the dual release requires the approved data to be approved/accepted by both the Authority and the appropriate foreign authority and the single release requires the approved data to be approved/accepted by only the appropriate foreign authority.

Blocks 14 – 18 Must not be used for maintenance tasks by MCAR-145 approved maintenance organisations and should be crossed out. These blocks are specifically reserved for the release/certification of newly manufactured items by manufacturing organisations approved under Section 6 of the MCAR.

Block 19 Contains the required MCAR-145.50(b) release to service statement for all maintenance by MCAR-145 approved maintenance organisations. When non MCAR-145 maintenance is being released Block 13 should specify the particular national regulation. In any case the appropriate box should be ‘ticked’ to validate the release.

The certification statement ‘except as otherwise stated in Block 13’ is intended to address the following situations:

(a) The case where the maintenance could not be completed
(b) The case where the maintenance deviated from the standard required by MCAR-145
(c) The case where the maintenance was carried out in accordance with a non MCAR-145 requirement

Whichever case or combination of cases should be specified in Block 13.

Block 20 For the signature of the certifying staff authorised by the MCAR-145 approved maintenance organisation. This signature can be computer printed subject to the Authority being satisfied that only the signatory can direct the computer and that a signature is not possible on a blank computer generated form. A rubber stamp signature is not allowed. An impression of the authorised person’s stamp may be made in addition to the signature.

Block 21 The MCAR-145 approved maintenance organisation approval number given by the Authority.
Block 22  The name of the Block 20 signatory and personal authorisation reference shall be typed or printed in a legible form.

Block 23  The date of signing the Block 19 release to service. The format should be d/m/y. The release to service should be signed at the completion of maintenance.

Note that the User Responsibility Statements are on the reverse side of the Certificate. These statements may be added to the front of the Certificate below the bottom line by reducing the depth of the form.

5  EFFECTIVITY

5.1  Except as stated in paragraph 5.2 the ARC form DCA AWF 95 should be used for the release of all parts from the date that the maintenance organisation received its MCAR-145 approval.

5.2  Reserved
USER / INSTALLER RESPONSIBILITIES

NOTE:

It is important to understand that the existence of the Certificate alone does not automatically constitute authority to install the part/component/assembly.

Where the user/installer works in accordance with the national regulations of an Airworthiness Authority different from the Department of Civil Aviation of Mauritius (DCA), it is essential that the user/installer ensures that his/her Airworthiness Authority accepts parts/components/assemblies from the DCA.

Statements 14 and 19 do not constitute installation certification. In all cases, the aircraft maintenance record must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.

(Reverse)
A. TYPICAL LARGE ORGANISATION

1. The Engineering Director may be the accountable manager if it is a Corporate Board position and meets the other requirements for accountable manager. Typically such a position is entitled Vice President (Engineering).

2. Quality Audit personnel must remain independent of the Maintenance Manager. Release to Service personnel may report instead to the quality Manager position.

3. Technical records personnel may report instead to the Aircraft (Workshop) Manager.
B TYPICAL SMALL ORGANISATION

CARM – 145 Organisation Corporate Board
  Accountable Manager
  Maintenance Engineer
  Quality Audit Engineer
SECTION 2

APPENDIX 5

NON MCAR-145 ORGANISATIONS WORKING UNDER THE QUALITY SYSTEM OF A MCAR-145 APPROVED MAINTENANCE ORGANISATION (SUB-CONTRACTING)

1 INTRODUCTION

1.1 MCAR-145.1(c), (d) and (f) permits an organisation that is not appropriately approved in accordance with MCAR-145 to carry out certain maintenance under the quality system of an appropriately approved MCAR-145 organisation. AMC 145.1 and this Appendix provide an acceptable means of compliance.

1.2 As working under the quality system of a MCAR-145 approved maintenance organisation is more commonly referred to as sub-contracting, this latter phrase will be used throughout this Appendix.

2 FUNDAMENTALS OF MCAR-145 SUB-CONTRACTING

2.1 The fundamental reasons for allowing a MCAR-145 approved maintenance organisation to subcontract certain maintenance tasks are:

(a) To permit the acceptance of specialised maintenance services, such as, but not limited to, plating, heat treatment, plasma spray, fabrication of specified parts for minor repairs / modifications, etc., without the need for direct Authority approval in such cases.

(b) To permit the acceptance of component maintenance.

2.2 When maintenance is carried out under the sub-contract control system it means that for the duration of such maintenance, the MCAR-145 approval has been temporarily extended to include the subcontractor. It therefore follows that those parts of the subcontractor’s facilities, personnel and procedures involved with the MCAR-145 approved maintenance organisation’s products undergoing maintenance should meet MCAR-145 requirements for the duration of that maintenance and it remains the MCAR-145 organisation’s responsibility to ensure such requirements are satisfied.

2.3 For the criteria specified in sub-paragraph 2.1, the MCAR-145 approved maintenance organisation is not required to have complete facilities for maintenance that it needs to sub-contract but it should have its own expertise to determine that the sub-contractor meets the necessary standards. However a MCAR-145 approved maintenance organisation cannot be approved unless it has the in house facilities, procedures and expertise to carry out the majority of maintenance for which it wishes to be approved in terms of the number of class ratings.
2.4 The MCAR-145 approved maintenance organisation may find it necessary to include several specialist sub-contractors to enable it to be approved to completely certify the release to service of a particular product. Examples could be specialist welding, electro-plating, painting etc. To authorise the use of such sub-contractors, the Authority will need to be satisfied that the MCAR-145 approved maintenance organisation has the necessary expertise and procedures to control such sub-contractors.

2.5 A MCAR-145 approved maintenance organisation working outside the scope of its approval schedule is deemed to be not approved. Such an organisation may in this circumstance operate only under the sub-contract control of another appropriately approved MCAR-145 organisation.

2.6 MCAR-145.1 (f) limits the extent of sub-contracting.

2.7 Authorisation to sub-contract is indicated by the Authority accepting the maintenance organisation exposition containing a specific procedure on the control of sub-contractors plus a list of subcontractors as required by MCAR-145.70 (a)(14) and MCAR-145.75 (b).

3 PRINCIPAL MCAR-145 PROCEDURES FOR THE CONTROL OF SUB-CONTRACTORS NOT MCAR-145 APPROVED

3.1 A pre-audit procedure should be established whereby the MCAR-145 approved maintenance organisations’ subcontract control section, which may also be the MCAR-145.65(c) quality system independent audit section, should audit a prospective sub-contractor to determine whether those services of the sub-contractor that it wishes to use meets the intent of MCAR-145.

3.2 The MCAR-145 approved maintenance organisation needs to assess to what extent it will use the subcontractor’s facilities. As a general rule the MCAR-145 approved maintenance organisation should require its own paperwork, approved data and material/spare parts to be used, but it could permit the use of tools, equipment and personnel from the sub-contractor as long as such tools, equipment and personnel meet the requirement of MCAR-145. In the case of sub-contractors who provide specialised services it may for practical reasons be necessary to use their specialised services personnel, approved data and material subject to acceptance by the MCAR-145 approved maintenance organisation. Specialised service personnel should meet any published MCAR qualification standard except that where no MCAR qualification standard is published, existing national requirements should be followed.
3.3 Unless the sub-contracted maintenance work can be fully inspected on receipt by the MCAR-145 approved maintenance organisation it will be necessary for such MCAR-145 approved maintenance organisation to supervise the inspection and release from the sub-contractor. Such activities should be fully described in the MCAR-145 approved maintenance organisation procedure. The MCAR-145 approved maintenance organisation will need to consider whether to use its own staff or authorise the sub-contractor's staff.

3.4 The certificate of release to service may be issued either at the sub-contractor or at the MCAR-145 facility by staff issued a certifying staff certification authorisation in accordance with MCAR-145.30 (d) to (g), as appropriate, by the MCAR-145 approved maintenance organisation. Such staff would normally come from the MCAR-145 approved maintenance organisation but may otherwise be a person from the sub-contractor who meets the MCAR-145 approved maintenance organisation certifying staff standard which itself is approved by the Authority via the maintenance organisation exposition. The certificate of release to service will always be issued under the MCAR-145 approved maintenance organisation approval reference.

3.5 The sub-contract control procedure will need to record audits of the sub-contractor, to have a corrective action follow up plan and to know when sub-contractors are being used. The procedure should include a clear revocation process for sub-contractors who do not meet the MCAR-145 approved maintenance organisation’s requirements.

3.6 The MCAR-145 quality audit staff will need to audit the sub-contract control section and sample audit sub-contractors unless this task is already carried out by the quality audit staff as stated in subparagraph 3.1.

3.7 The contract between the MCAR-145 approved maintenance organisation and the sub-contractor should contain a provision for the Authority staff to have right of access to the sub-contractor.
MCAR-145.201

General

No person may certify that the Mauritius Airworthiness Requirements have been complied with in respect of the procurement, storage and re-issue of new aircraft parts and materials obtained under cover of acceptable documents from approved sources unless approved under this sub-part and subject to compliance with the procedures set up in this sub-part.

MCAR-145.205

Definitions

For the purpose of this sub-part, the MCAR-145.5 definitions shall apply unless otherwise defined as follows:

“Authorised Release Certificate” means the form DCA AWF 95.

“Copy” means certified true copy of the original.

“Re-issue” means the release to service of new aircraft components procured under cover of acceptable documents from approved sources and stored in accordance with prescribed conditions as specified by the Authority and/or manufacturers.

MCAR-145.210

Applicability

This sub-part prescribes the requirements for issuing approvals to organisations for the distribution of aircraft components and prescribes the general operating rules for approved distributors. The approval, when granted, will apply to the whole organisation headed by the accountable manager.

MCAR-145.215 Application and Issue

(a) An application for distributor approval or for the amendment of an existing distributor approval shall be made on form DCA AWF12 and in a manner prescribed by the Authority and submitted with the distributor organisation’s exposition or amendment thereto.

(b) An applicant who meets the requirements of this sub-part and has paid any charges prescribed by the Authority is entitled to a distributor approval.
MCAR-145.220

Extent of approval

The grant of approval is indicated by the issue of a certificate of approval to the organisation by the Authority. The certificate of approval will specify the extent of approval.

MCAR-145.221

Display of Certificate

An organisation certificated under this sub-part shall display the certificate in a prominent place within the organisation’s premises and shall produce the certificate to the Authority upon request.

MCAR-145.225

Facility requirements

(a) Facilities must be provided appropriate for all planned inspection, ensuring in particular, protection from the weather elements. Specialised inspection and storage areas must be segregated as appropriate, to ensure that environmental contamination is unlikely to occur.

(b) Office accommodation must be provided appropriate for the management of the sub-paragraph (a) planned inspection including in particular, the management of quality, planning and technical records.

(c) Storage facilities must be provided for aircraft parts and material. Storage conditions must be such as to provide security for serviceable parts, segregation of serviceable from unserviceable parts, and prevent deterioration of and damage to stored items.

(d) The storage environment must be appropriate for the parts and material under storage, in particular, special requirements must be observed.

(e) Quarantine storage facilities in accordance with the requirements of sub-paragraphs (c) and (d) shall be provided for aircraft parts and material awaiting confirmation of approval.
MCAR-145.230

Personnel requirements

(a) A senior person or group of persons acceptable to the Authority, whose responsibilities include ensuring that the subpart D approved distributor organisation is in compliance with sub-part D requirements, must be nominated. Such person(s) must ultimately be directly responsible to the accountable manager who must be acceptable to the Authority.

(b) The sub-part D approved distributor organisation must employ sufficient personnel to plan, perform and supervise the inspection in accordance with the approval.

(c) The competence of personnel involved in inspection must be established in accordance with a procedure and to a standard acceptable to the Authority.

(d) In addition to paragraph (c) certifying personnel must meet the qualification specified by the Authority and receive initial and continuation training in accordance with a programme acceptable to the Authority. The training programme established by the maintenance organisation shall include training in knowledge and skills related to human performance, and where necessary, include co-ordination with other maintenance personnel and flight crew.

MCAR-145.235

Record of Certifying Staff

(a) The sub-part D approved distributor organisation must maintain a record of all certifying staff which must include details of their qualifications, training experience and the scope of their approvals.

(b) Certifying staff must be provided with evidence of the scope of their approvals.

MCAR-145.245

Maintenance Data

(a) The sub-part D approved distributor organisation must be in receipt of all necessary maintenance data from the Authority, the aircraft component design organisation and any other design organisation, as appropriate, to support the inspection and storage procedures.

Note: The Authority may classify data from another authority or organisation as mandatory and may require the sub-part D approved distributor organisation to hold such data.
(b) Where the sub-part D approved distributor organisation produces its own maintenance data additional to that specified in paragraph (a) such additional maintenance data must be produced in accordance with a procedures acceptable to the Authority.

(c) All maintenance data must be kept up to date and made available to all personnel who need access to such data to perform their duties.

MCAR-145.250

Certification of Release

(a) An authorised release certificate form DCA AWF 96 may be issued by appropriately approved certifying staff on behalf of the sub-part D approved distributor organisation when satisfied that all required inspection and storage procedures of the new aircraft component have been properly carried out by the sub-part D approved distributor organisation in accordance with the procedures specified in the MCAR-145.270 distributor organisation exposition.

(b) The authorised release certificate must obtain basic details as specified in Appendix 2 of sub-part D.

MCAR-145.255

Technical Records

(a) The sub-part D approved distributor organisation must record all details of inspection carried out in a form acceptable to the Authority.

(b) The sub-part D approved distributor organisation must provide a copy of each authorised release certificate to the user.

(c) The sub-part D approved distributor organisation must retain a copy of all incoming, inspection and outgoing certificates and any associated maintenance data in a manner acceptable to the Authority. The records must be retrievable within a time acceptable to the Authority.

Note: Essential records shall not be destroyed without written authorization from the Authority.
MCAR-145.260

Reporting of unairworthy conditions

The sub-part D approved distributor organisation or any person receiving components, equipment or materials that have been certified on an Authorised Release Certificate - Airworthiness Approval Tag or similar document, and which have been found to be unsuitable for aircraft use due to unserviceability, manufacturing discrepancies, inadequate quality control during manufacture, overhaul, repair, inspection or processing, deterioration, or contamination during storage shall advise the Authority in writing of the following:

(a) A description of the items, including part, drawing specification or serial numbers as applicable and where possible a parts catalogue reference.

(b) The quantity received and quantity with discrepancies.

(c) Details of the discrepancies.

(d) Name of the person or organisation either in Mauritius or overseas from whom the items were received.

(e) In respect of items not received direct from the manufacturer -any additional details which could assist in tracing the history of the items, e.g. manufacturers identification markings, the name and address of the person or organisation who issued earlier certifications, etc.

MCAR-145.265

Inspection procedures and quality system

(a) The sub-part D approved distributor organisation must establish procedures acceptable to the Authority to ensure good inspection, handling and storage practices and compliance with all relevant requirements in this MCAR-145 such that aircraft components may be released to service in accordance with MCAR-145.250.

(b) In addition, except as provided for in paragraph (c), the sub-part D approved distributor organisation must establish an independent quality system to monitor compliance with and adequacy of the procedures to ensure good inspection, handling and storage practices and airworthy aircraft components. Compliance monitoring must include a feedback system to the person or group of persons specified in MCAR-145.230(a) and ultimately to the accountable manager to ensure, as necessary, corrective action. Such systems must be acceptable to the Authority.

(c) The smallest sub-part D approved distributor organisation may contract the paragraph (b) independent quality system to a MCAR-145 approved maintenance organisation (also approved under sub-part D) subject to agreement by the Authority.
(d) The sub-part D approved distributor organisation may procure aircraft parts and material only from approved sources for which it must establish an acceptable quality system to monitor their compliance with all relevant requirements.

MCAR-145.270

Distributor organisation exposition

(a) The sub-part D approved distributor organisation must provide a distributor organisation exposition for use by the subpart D approved distributor organisation, containing the following information:

(1) A statement signed by the accountable manager confirming that the distributor organisation exposition, and any associated manuals, defines the subpart D approved distributor organisation’s compliance with MCAR-145 sub-part D and will be complied with at all times.

(2) The title(s) and name(s) of the senior person(s) accepted by the Authority in accordance with MCAR-145.230(a).

(3) The duties and responsibilities of the senior person(s) specified in sub-subparagraph (2) including matters on which they may deal directly with the Authority on behalf of the sub-part D approved distributor organisation.

(4) An organisation chart showing associated chains of responsibility of the senior person(s) specified in subparagraph (2).

(5) A list of certifying staff.

(6) A general description of manpower resources.

(7) A general description of the facilities located at each address specified in the sub-part D approved distributor organisation’s certificate of approval.

(8) A specification of the sub-part D approved distributor organisation’s scope of inspection relevant to the extent of approval.

(9) The notification procedure of MCAR-145.285 for sub-part D approved distributor organisation changes.

(10) The distributor organisation exposition amendment procedure.

Note: Sub-paragraphs (1) to (10) inclusive constitutes the management part of the distributor organisation exposition.

(12) A list of approved sources as specified in MCAR-145.265(d).

(a) The distributor organisation exposition and any subsequent amendments must be approved by the Authority.

MCAR-145.275

Privileges of the approved distributor organisation

The sub-part D approved distributor organisation may only carry out the following tasks as permitted by and in accordance with the sub-part D approved distributor organisation exposition:

(a) Inspect, handle and store class of aircraft component for which it is approved at the locations identified in the certificate of approval.

(b) Issue authorised release certificates DCA AWF 96 in respect of paragraph (a) on dispatching aircraft component in accordance with MCAR-145.250.

MCAR-145.285

Changes to the approved distributor organisation

(a) The sub-part D approved distributor organisation must notify the Authority as soon as it is practicable of any of the following changes, to enable the Authority to determine continued compliance with this MCAR-145 and to amend, if necessary, the certificate of approval:

(1) The name of the organisation.

(2) The location of the organisation.

(3) Additional locations of the organisation.

(4) The accountable manager.

(5) Any of the senior persons specified in paragraph MCAR-145.30 (a).
(6) The facilities, equipment, material, procedures, scope of inspection and certifying staff that could affect the approval.

(b) The Authority may prescribe the conditions under which the sub-part D approved distributor organisation may operate during such changes unless the Authority determines that the approval should be suspended.

**MCAR-145.290**

**Continued validity of approval**

Unless the approval has previously been surrendered, superseded, suspended, revoked or expired by virtue of exceeding any expiry date that may be specified in the certificate of approval, the continued validity of approval is dependent upon

(a) The sub-part D approved distributor organisation remaining in compliance with this sub-part D; and

(b) The Authority being granted access to the sub-part D approved distributor organisation to determine continued compliance with this sub-part D; and

(c) The payment of any charges prescribed by the Authority.

**MCAR-145.295**

**Equivalent safety case**

The Authority may exempt a sub-part D approved distributor organisation from a requirement in this sub-part D when satisfied that there is such a need and subject to compliance with any supplementary condition the Authority considers necessary to ensure equivalent safety in the particular case.
APPROVAL OF DISTRIBUTORS ACCEPTABLE MEANS OF COMPLIANCE AND
INTERPRETATIONS (ACS)

ACS 145.201

General

This portion contains the Acceptable Means of Compliance and Interpretative Material that
has been included in the sub-part D to assist the sub-part D distributor organisation in
meeting the necessary requirements. Where the sub-part D paragraphs refer to an AMC in
Section 2 of the MCAR-145 (e.g. see AMC 145.5), the sub-part D distributor need only
extract whatever is applicable.

ACS 145.220

Extent of approval

1  Appendix 1 of Section 2 contains the two ratings available to the sub-part D
distributor organisation.

2  The sub-part D approved distributor organisation should note the scope of the two
ratings as follows:

CLASS MD1  General aeronautical parts/materials that do not belong to CLASS
MD2.

CLASS MD2  Special aeronautical parts refer to those parts/materials which require
specific handling or storage and/or have life limitations and/or are subject to
compliance with any maintenance data (e.g. ADs, SBs, etc.).

The Authority may limit a sub-part D approved distributor organisation to less than
the above scope of approval. It should be noted that although general or standard parts
with proper document cannot be issued with an ARC, they can still be kept in the
bonded stores subject to a system acceptable to the Authority.

ACS 145.225(a)

Facility requirements

1  Suitable accommodation of sufficient size and with adequate lighting, inspection
equipment and facilities shall be provided for the activities to be undertaken.
2 Protection from the weather elements relates to the normal prevailing local weather elements that are expected throughout any twelve month period. Floors should be sealed to minimise dust generation.

**ACS 145.225(b)**

**Facility requirements**

Refer to AMC 145.25(b).

**ACS 145.225(c)**

**Facility requirements**

1 Storage facilities should be such as to ensure the working environment permits personnel to carry out work tasks in an effective manner. Adequate security should be implemented through the restriction of entry to nominated personnel.

2 Temperature and humidity should be maintained such that personnel can carry out required tasks without undue discomfort and that aircraft parts and material are protected against deterioration, contamination and damage. There shall be an acceptable system of monitoring these environmental factors.

3 Dust and any other airborne contamination should be kept to a minimum and not be permitted to reach a level in the work task area where visible aircraft component surface contamination is evident.

4 Lighting should be adequate for each inspection task to be carried out.

5 Noise levels should not be permitted to rise to the point of distracting personnel from carrying out inspection tasks. Where it is impractical to control the noise source, such personnel should be provided with the necessary personal equipment to stop excessive noise causing distraction during inspection tasks.

6 Where a particular inspection task requires the application of specific environmental conditions different to the foregoing, then such conditions should be observed.

**ACS 145.225(d)/(e)**

**Facility requirements**

1 This means that secure storage facilities are required for serviceable aircraft components, whereas unserviceable aircraft components, material, tooling and equipment simply need to be separately stored. It is however required that separate and secure storage facilities be provided for unserviceable components, material, equipment and tooling.
2 Storage facilities for serviceable aircraft components should be clean, well-ventilated and maintained at an even dry temperature to minimise the effects of condensation. Manufacturers and standard recommendations should be followed for specific aircraft components.

3 Storage racks should be strong enough to hold aircraft components and provide sufficient support for large aircraft components such that the component is not distorted during storage.

4 All aircraft components, wherever practicable should remain packaged in protective material to minimise damage and corrosion during storage.

ACS 145.245

Maintenance Data

1 This primarily requires the sub-part D approved distributor organisation to hold copies of any inspection-related document issued by the Authority, the type certificate holder or other appropriate design organisation and referenced equipment information. Referenced means that identified by the type certificate holder. Some examples of inspection-related documents are MCAR-145, AOC, the associated advisory material, airworthiness directives, manufacturers’ maintenance manuals, service bulletins, service letters, service instructions, modification leaflets, etc.

2 To keep data up to date, a procedure should be set up to monitor the amendments status of all data and maintain a check that all amendments are being received by being a subscriber to any document amendment scheme.

3 Data being made available to personnel inspecting aircraft component means that the data should be available in close proximity to the aircraft component being inspected, for supervisors and certifying staff to study.

4 Where computer systems are used, the number of computer terminals should be sufficient in relation to the size of the work programme to enable easy access, unless the computer system can produce paper copies. Where microfilm or microfiche readers/printers are used, a similar requirement is applicable.
ACS 145.250(a)

Certification of Release

1  The authorised release certificate/airworthiness approval tag identified as DCA AWF 96 (see Appendix 2 of this sub-part D) constitutes the aircraft component certificate of release to service when a new aircraft component is released by a sub-part D distributor organisation.

2  An authorised release certificate may only be issued for new aircraft components with acceptable document as specified in Appendix I of this sub-part D. It is not meant for standard or used parts/ materials.

3  The issue of an authorised release certificate, where eligible, is dependent on the customer, who may request for the original certification instead.

Note: Certifying staff should meet the Authority requirements in respect of qualifications.

4  Before the issue of the authorised release certificate, the certifying staff must ensure evidence is available that:

   (a) The item complies with the information stated on the authorised release certificate;

   (b) The item is serviceable; and

   (c) Will substantiate any statement referring to the time in service or life of the item.

ACS 145.250(b)

Certification of release

1  The format of the authorised release certificate should be in accordance with that specified in Appendix 2 of this sub-part D.

2  The authorised release certificate should make reference to the original certification as well as any special requirements.

3  The person issuing the authorised release certificate should use his full signature and preferably a certification stamp.
ACS 145.265(a)  
**Inspection procedures and quality system**

1. The inspection procedures should cover all aspects of carrying out the inspection, handling and storage activities and in reality lay down the standards to which the sub-part D distributor organisation intends to work. The standards laid down by the aircraft component manufacturers must be taken into account.

2. The inspection procedures should address MCAR-145.225 to 145.260 inclusive and the limitations of MCAR-145.275 to 145.295 inclusive.

ACS 145.265(b)  
**Inspection procedures and quality system**

1. The quality system is in fact an independent system under the control of the MCAR-145.230(a) quality manager looking at the MCAR-145.265(a) inspection procedures and the correctness of the MCAR-145.295 equivalent safety case process.

2. The Authority expects the quality system to review all inspection procedures as described in the exposition in accordance with an approved programme. The quality system should show when audits are due, when they are completed and include a system of audit reports which can be seen by visiting DCA officers on request. The audit system should clearly establish a means by which audit reports containing observations about non-compliance or poor standards can be actioned. The means should ultimately lead to the accountable manager.

ACS 145.265(c)  
**Inspection procedures and quality system**

1. Contracting quality monitoring to a MCAR-145 approved maintenance organisation (also approved under sub-part D) means an organisation that holds an approval rating that at minimum covers the approved activities of the sub-part D organisation working to MCAR-145.265(c). The Authority will need to be satisfied that the arrangement is practical and that quality monitoring can be carried out.

2. - reserved

3. The para 1 organisation should conduct at least two full audits in every twelve month period of which one audit should be unannounced. It is the responsibility of the sub-part D approved distributor organisation to comply with the findings of the contracted MCAR-145 quality monitoring organisation.
CERTIFICATION REQUIREMENTS FOR NEW AIRCRAFT PARTS

1 PURPOSE AND SCOPE

The purpose of this Appendix is to inform the user/installer of the certification required of new aircraft parts from various countries as listed in Table 1. It should be noted that the list is by no means exhaustive and that the various authorities may change their documentation from time to time. It is the responsibility of the MCAR-145 or the sub-part D organisations to ensure that the documentation at the time of issue is in accordance with the relevant authorities’ requirements.

Should the MCAR-145 or sub-part D organisations become aware of any changes to Table 1, they should inform the Authority in writing at the following address: Airworthiness & Flight Operations Division Department of Civil Aviation of MAURITIUS SSR International Airport, PLAISANCE

Note: Amendments may take time to be carried out as it is not feasible to have piecemeal amendments. As such, the Authority may issue Advisory Circular to inform the organisations of any changes.

This Appendix addresses only aircraft components/parts/materials. Standard parts, as identified by the aircraft manufacturers, may require only Certificates of Conformance and should not be given any form of aviation certification.

2 GENERAL

Notwithstanding anything contained in Table 1, a document is not a document of a kind for the purpose of this sub-part D of MCAR-145 unless:

(a) It is the original or a certified true copy issued by the originator;

(b) It identifies the originator;

(c) It states the quantity of and fully describes each item the document covers, by name, part number and/or specification and serial number, if applicable; and

(d) It is duly endorsed by an appropriately qualified personnel in accordance with the requirements of the country of origin.
The Authority may reject any documentation should it have reason to believe that they have not been properly completed by the originator or that the appropriate requirements have not been complied with. All printing shall be clear and legible to permit easy reading. Should the documentation be in a language other than English, a translation into English would be required.

Abbreviations must be restricted to a minimum.

Where a separate listing is attached, there must be proper cross-referencing between Certificate and list. The total number of pages of the list should also be reflected in the Certificate. The list should also be properly paginated and each page must hear the endorsement of the originator.

**TABLE 1 - DOCUMENTS FOR NEW AIRCRAFT PARTS**

RESERVED
1 PURPOSE AND SCOPE

The purpose of the Certificate is to identify airworthiness and eligibility status of parts/components/assemblies (hereafter referred to as “part(s)”) re-issued by distributors under the approval of the Department of Civil Aviation of Mauritius (DCA).

The Certificate referenced DCA AWF 96 is called the authorised release certificate. The Certificate is to be used for export/import purposes, as well as for domestic purposes, and serves as an official certificate for the delivery of parts from the approved distributor to users.

It can only be issued by organisations approved by the Authority within the scope of the approval or by the Authority itself.

Note: Whole aircraft, engines or propellers may not be released using the Certificate.

2 GENERAL

The Certificate shall comply with the format attached including block numbers in that each block must be located as per the layout. The size of each block may however be varied to suit the individual application, but not to the extent that would make the Certificate unrecognisable. The size of the Certificate may be significantly increased or decreased so long as the certificate remains recognisable and legible. If in doubt consult the Authority.

All printing shall be clear and legible to permit easy reading.

The Certificate shall either be pre-printed or computer generated but in either case the printing of lines and characters must be clear and legible. Pre-printed wording is permitted in accordance with the attached model but no other certification statements are permitted.

Completion of the Certificate shall be in English.

The details to be entered on the Certificate can be either machine/computer printed or handwritten using block letters and must permit easy reading.

Abbreviations must be restricted to a minimum.
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The space remaining on the reverse side of the Certificate may be used by the originator for any additional information but may not include any certification statement.

The top copy Certificate or a certified true copy shall accompany the parts and correlation shall be established between the Certificate and the part(s). A copy of the Certificate shall be retained by the organisation that re-issued the part. Where the Certificate format and data is entirely computer generated, subject to acceptance by the Authority it is permissible to retain the Certificate format and data on a secure data base.

Note: There is no restriction in the number of copies of the Certificate sent to the customer or retained by the originator.

The Certificate that accompanies the part may be attached to the part by being placed in an envelope for durability.

COMPLETION OF THE RELEASE CERTIFICATE BY THE ORIGINATOR

Except as otherwise stated, there must be an entry in all blocks to make the document a valid certificate.

Refer to the attached copy of the Certificate:

Block 1 The country of origin is MAURITIUS. It must be pre-printed.

Block 2 The first line in this block shall be the Department of Civil Aviation of Mauritius. It must be pre-printed.

Block 3 A serial number must be pre-printed in this block for Certificate control and traceability purposes except that in the case of a computer generated document the serial number need not be pre-printed where the computer is programmed to produce the number. Nonetheless, for the later case, a pre-printed serial number is still required to account for the Certificates.

Block 4 The full name and address of the organisation releasing the part covered by this Certificate. This block must be pre-printed. Logos, etc., are permitted if the logo can be contained within the block.

Block 5 The purpose of this block is to reference work order/contract/invoice or any other internal organisational process such that a fast traceability system can be established.

Block 6 This block is provided for the convenience of the organisation issuing the Certificate to permit easy cross-reference to the “Remarks” Block 13 by the use of item numbers. Completion is not mandatory.
Where a number of items are to be released on the Certificate it is permissible to use a separate listing cross-referring Certificate and list to each other. The total number of pages of the list should be reflected in the Certificate. The list should also be properly paginated and each page must bear the endorsement of the originator.

Block 7  The name or description of the part shall be given. Preference should be given to use of the Illustrated Parts Catalogue (IPC) designation.

Block 8  State the part number. Preference shall be given to use of the IPC number designate.

Block 9  Used to indicate the type-approved products for which the released parts are eligible for installation. The following entries are permitted:

(a)  The specific or series aircraft, propeller, or engine model on which the part is eligible for installation or reference to a readily available catalogue or manual which contains such information. For example: “A300”.

(b)  “Various”, if known to be eligible for installation on more than one model of type-approved product, unless the originator wishes to restrict usage to a particular model installation when it should so state.

(c)  “Unknown”, if eligibility is unknown, this category being primarily for use by maintenance organisations.

Note: Any information in block 9 does not constitute authority to fit the part to a particular aircraft, engine or propeller. The User/Installer must confirm via documents such as the Parts Catalogue, Service Bulletins etc., that the part is eligible for the particular installation.

Block 10  State the number of parts being released.

Block 11  State the part Serial Number or Batch Number if applicable, if neither applicable, state “N/A”.

Block 12  The word “RE-ISSUED” must be pre-printed. It refers to the re-issue of new parts obtained under cover of acceptable document, as specified in Appendix 1 of this Subpart D, from approved sources.

Block 13  It is mandatory to state any information in this block either direct or by reference to supporting documentation that identifies particular data or limitations relating to the parts being released that are necessary for the User/Installer to make the final airworthiness determination of the part. Information should be clear, complete, and provided in a form and manner which is adequate for the purpose of making such a determination.
Each statement must be clearly identified as to which item it relates.

If there is no statement, state “None”.
Some examples of the information to be quoted are as follows:

- Modification standard
- Alternative approved parts supplied
- Compliance with, or non-compliance with AD’s, or Service Bulletins
- Information on life limited parts
- Condition of parts or reference to a document detailing this information
- Manufacturing date or cure date
- Shelf life data
- Shortages
- Exceptions to the notified special requirements of the importing country

Block 14  The Certificate can be used only for new parts re-issued by distributors. The certification statement must be pre-printed.

Block 15  The Certificate must be signed by a person who has the written approval to perform this function on behalf of the Authority.

A rubber stamp signature is not allowed.

An impression of the authorised person’s stamp may be made in addition to the signature.

Block 16  The name of the person signing the Certificate shall be typed or printed in a legible form.

Block 17  The date of signing the release statement.

Block 18  The sub-part D approved distributor organisation reference number given by the Authority. It shall be pre-printed.

Please note the User Responsibility Statements on the reverse side of the Certificate. These statements may be printed at the bottom of the front page of the Certificate if space allows.

Authority. It shall be pre-printed.

Please note the User Responsibility Statements on the reverse side of the Certificate. These statements may be printed at the bottom of the front page of the Certificate if space allows.
# Mauritius Civil Airworthiness Requirements

## Part 145

### Issue 1 Dated 21 March 2008

<table>
<thead>
<tr>
<th>1. Country</th>
<th>2. Department of Civil Aviation</th>
<th>3. Form Tracking Number</th>
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<tbody>
<tr>
<td>MAURITIUS</td>
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</table>

### 4. Approved Organisation Name and Address

### 5. Work Order/Contract/Invoice

<table>
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<td>RE-ISSUED</td>
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</table>

### 13. Remarks

### 14. Re-issued Parts Certifies that the part(s) identified above has (have) been received under procedures approved under the Mauritius civil Airworthiness Requirements and that supporting documents are held in the records of this company. Certifies that unless otherwise stated in Block 13, the part(s) conform(s) to the specifications and conditions required by your order.

### 15. Authorised Signature

### 16. Name

### DCA AWF 96

* Installer must cross check eligibility with applicable technical data

### USER / INSTALLER RESPONSIBILITIES

#### NOTE:

It is important to understand that the existence of the Certificate alone does not automatically constitute authority to install the part/component/assembly. Where the user/installer works in accordance with the national regulations of an Airworthiness Authority different from the Department of Civil Aviation of Mauritius (DCA), it is essential that the user/installer ensures that his/her Airworthiness Authority accepts parts/components/assemblies from the DCA.

Statement 14 does not constitute installation certification. In all cases, the aircraft maintenance record must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.

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(Reverse)

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