



TECHNICAL GUIDANCE MATERIAL

MAINTENANCE ORGANIZATION MANUAL OF PROCEDURES REVIEW AND APPROVAL

Subject: TECHNICAL GUIDANCE MATERIAL FOR MAINTENANCE ORGANIZATION MANUAL OF PROCEDURES REVIEW AND APPROVAL

Effective Date: **26 JUNE 2013**

REFERENCES:

1. CAR 145.02.1
2. CAR 145.02.2
3. CA145-04
4. AW009
5. ICAO Annex 6, Part 1, Chapter 8 Aeroplane maintenance, 8.7 Approved maintenance organization
ICAO Doc. 9760 Part IV: Annex 6, Operations of Aircraft, Supporting Guidance Material, Chapter 4:
Approval of Maintenance Organizations, 4.4 Maintenance organization's procedures manual

A. PURPOSE:

This guidance material outlines the process for the review and approval of maintenance organization manual of procedures.

Organization Manual of Procedures review and approval

1. Requirements

- 1.1 An AMO MOP and any subsequent amendments thereto shall be approved by the Authority prior to use.
- 1.2 The AMO MOP shall specify the scope of work required of the AMO in order to satisfy the relevant requirements needed for an approval of an aircraft or aeronautical product for return to service.
- 1.3 The AMO MOP shall include the provisions of Safety Management System established in compliance with the Safety Program of the State in order to achieve an acceptable level of safety in the maintenance of aircraft
- 1.4 The MOP and any other manual it identifies must:
 - 1.4.1 Include instructions and information necessary to allow the personnel concerned to perform their duties and responsibilities with a high degree of safety;
 - 1.4.2 Be in a form that is easy to revise and contain a system which allows personnel to determine current revision status; Have the date of the last revision printed on each page containing the revision;
 - 1.4.3 Not be contrary to any applicable regulations or the AMO's specific operating provisions; and
 - 1.4.4 Include a reference to appropriate civil aviation regulations.
- 1.5 The AMO shall provide an approved MOP for use by the organisation, containing the following information —

- a) A statement signed by the accountable manager confirming that the maintenance organisation MOP and any associated manuals define the AMO's compliance with the regulations and will be complied with at all times.
- b) A procedure to establish and maintain a current list of the titles and names of the management personnel accepted by the Authority. The list of personnel may be separate from the MOP but must be kept current and available for review by the Authority when requested.
- c) Duties and responsibility of the management personnel and the matters on which they may deal directly with the Authority on behalf of the AMO.
- d) An organisation chart showing associated chains of responsibility of the management personnel.
- e) The personnel authorized to sign the maintenance release and the scope of their authorization
- f) A description of the procedures used to establish the competence of maintenance personnel.
- g) A general description of human resources employed by the organization.
Note: Subparagraphs (1) to (7) constitutes the management part of the maintenance organisation MOP and therefore could be produced as one document and made available to person(s) to familiarize themselves with its contents.
- h) A general description and layout of the facilities located at each address specified in the AMO's approval certificate.
- i) A general description of the AMO's scope of work relevant to the extent of approval.
- j) The notification procedure for AMO to use when requesting the approval of changes to the organisation of the AMO from the Authority.
- k) The amendment procedure for the AMO MOP, including the submission to the Authority.
- l) A description of the method used for the completion and retention of the maintenance records.
- m) A description of the procedure for preparing the maintenance release and the circumstances under which the release is to be signed.
- n) A description, when applicable, of additional procedures for complying with an AOC holder's maintenance procedures and requirements.
- o) A description of the procedures for complying with the service information reporting requirement.
- p) A description of the procedure for receiving, amending and distributing within the maintenance organisation all necessary airworthiness data from the type certificate holder or the type design organisation.
- q) The AMO's procedures, acceptable to the Authority, to ensure good maintenance practices and compliance with all relevant requirements in this subsection.
- r) The AMO's procedures to establish and maintain an independent quality system to monitor compliance with the adequacy of the procedures to ensure good quality maintenance practices and airworthy aircraft and aeronautical products. Compliance monitoring must include a feedback system to the accountable manager to ensure, as necessary, corrective action. Such a system shall be acceptable to the Authority.
- s) A Safety Management System
- t) A list of operators, if appropriate, to which the AMO provides an aircraft maintenance service.
- u) A list of organisations performing maintenance on behalf of the AMO.
- v) A list of the AMO's line maintenance locations and procedures, if applicable.

2. Content of MOP

- 2.1 The purpose of the MOP is to set forth the procedures, means and methods of the organisation.
- 2.2 Compliance with its contents will assure compliance with the requirements of MOP approval regulations/requirements, which is a pre-requisite to obtaining and retaining an approved maintenance organisation certificate.
- 2.3 A list of certifying staff may be produced as a separate document or as an appendix to the MOP.
- 2.4 The regulation 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 MOP.

- 2.5 Personnel are expected to be familiar with those parts of the manuals that are relevant to the maintenance work they carry out.
- 2.6 The organisation should specify in the MOP who should amend the manual particularly in the case where there are several parts.
- 2.7 The quality manager should be responsible for monitoring the amendment of the MOP, unless otherwise agreed by the CAA, including associated procedures manuals and submission of the proposed amendments to the CAA. However the CAA may agree via a procedure stated in the amendment section of the MOP that some defined class of amendments may be incorporated without prior approval.
- 2.8 The MOP should cover four main parts:
 - (a) The management MOP 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, inspection, certifying staff and quality audit personnel.
 - (d) Contracted operator procedures and paperwork.
- 2.9 The accountable manager's manual statement embraces 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 manual and any associated referenced manuals defines the organisation and procedures upon which the CAA approval is based. These procedures are approved by the undersigned and should be complied with, as applicable, when work/orders are being progressed under the terms of the approval. It is accepted that these procedures do not override the necessity of complying with any new or amended regulation published by the Director of Civil Aviation from time to time where these new or amended regulations are in conflict with these procedures. It is understood that the CAA will approve this organisation whilst the Director is satisfied that the procedures are being followed and work standards maintained. It is further understood that the Director of Civil Aviation reserves the right to suspend, limit or revoke the approval of the organisation if the CAA 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).....'

NOTE: Whenever the accountable manager changes it is important to ensure that the new accountable manager signs the paragraph 9 statement at the earliest opportunity. Failure to carry out this action could invalidate the approval.

- 2.10 When an organisation is approved against any other Regulations (foreign) containing a requirement for a manual, a supplement covering the differences will suffice to meet the requirements except that the supplement should have an index showing where those parts missing from the supplement are covered.
- 2.11 The MOP shall include or produced as a separate document a quality assurance system for the control and supervision of the maintenance of aircraft and aircraft components, covered by the application and made available to person(s) to familiarize themselves with its contents.
- 2.12 The organization must submit to the Authority an MOP issued in accordance with the following content:

**PART 1
MANAGEMENT**

- 1.1 Corporate commitment by the accountable manager.
- 1.2 Safety and quality policy.

- 1.3 Management personnel.
- 1.4 Duties and responsibilities of the management personnel.
- 1.5 Management organisation chart.
- 1.6 List of certifying staff.
- 1.7 Human resources.
- 1.8 General description of the facilities at each address intended to be approved.
- 1.9 Organisations intended scope of work.
- 1.10 Notification procedure to the competent authority regarding changes to the organisation's activities/approval/location/personnel.
- 1.11 MOP amendment procedures including, if applicable, delegated procedures.

PART 2

MAINTENANCE PROCEDURES

- 2.1 Purchasing procedure
- 2.2 Supplier evaluation and subcontract control procedure.
- 2.3 Acceptance/inspection of aircraft components and material from outside contractors.
- 2.4 Storage, tagging and release of aircraft components and material to aircraft maintenance.
- 2.5 Acceptance of tools and equipment.
- 2.6 Calibration of tools and equipment.
- 2.7 Use of tooling and equipment by staff (including alternate tools).
- 2.8 Cleanliness standards of maintenance facilities.
- 2.9 Repair procedure.
- 2.10 Maintenance, structural repair and Parts manuals
- 2.11 Aircraft maintenance programme compliance, Airworthiness directives procedure modification procedure and Technical record control..
- 2.12 Maintenance documentation in use and completion of same.
- 2.13 Rectification of defects arising during base maintenance.
- 2.14 Release to service procedure.
- 2.15 Records for the operator.
- 2.16 Return of defective aircraft components to store and defective components to outside contractors.
- 2.17 Reference to specific maintenance procedures such as -
 - i. Engine running procedures,
 - ii. Aircraft pressure run procedures,
 - iii. Aircraft towing procedures,
 - iv. Aircraft taxiing procedures.
- 2.18 Reporting of defects to the CAA/operator/manufacturer.
- 2.19 Control of computer maintenance record systems.
- 2.20 Control of man-hour planning versus scheduled maintenance work.
- 2.21 Control of critical tasks.
- 2.22 Procedures to detect and rectify maintenance errors.
- 2.23 Shift/task handover procedures
- 2.24 Procedures for notification of maintenance data inaccuracies and ambiguities, to the type certificate holder.
- 2.25 Production planning procedures
- 2.26 Maintenance instructions and relationship to aircraft/aircraft component manufacturers' instructions including updating and availability to staff.

PART 2

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 return of defective parts removed from aircraft.
- L2.6 Line procedure for pooled parts and loan parts.
- L2.7 Line procedure control of critical tasks.

PART 3

QUALITY SYSTEM PROCEDURES

- 3.1 Quality audit of organisation procedures.
- 3.2 Quality audit of aircraft.
- 3.3 Quality audit remedial action procedure.
- 3.4 Management analyses and overview
- 3.5 Certifying staff competence and training procedures.
- 3.6 Certifying staff records.
- 3.7 Quality audit personnel.
- 3.8 Qualifying inspectors and mechanics.
- 3.9 Concession control for deviation from organisations' procedures.
- 3.10 Aircraft or aircraft component maintenance tasks exemption process control.
- 3.11 Qualification procedure for specialised activities such as NDT welding etc.
- 3.12 Control of manufacturers' and other maintenance working teams.
- 3.13 Human factors training procedure
- 3.14 Competence assessment of personnel.

PART 4 (If applicable)

- 4.1 Contracted operators.
- 4.2 Operator procedures and paperwork.
- 4.3 Operator record completion.

PART 5 (as an appendix or supplement to the MOP)

- 5.1 Sample of documents.
- 5.2 List of Sub-contractors and suppliers
- 5.3 List of Line maintenance locations
- 5.4 List of contracted organisations

3. Approval of MOP

- 3.1 Apart from needing to ensure that the Manual of the organization addresses the subject headings listed in Part 2 of this procedure. The organisation should write the Manual to reflect the preferred procedures and not to please the CAA. The CAA inspector is required to establish that the procedures specified in the Manual are in compliance with the intent of the requirements and then to establish if these are the same procedures intended for use within the facility. The approving inspector is also required to ensure that the document is clear and concise.
- 3.2 The CAA must establish a clear procedure to indicate acceptance of the Manual because subsequent to the initial approval of the organisation, there will be a need for the organisation to amend the manual without affecting the Approval. It is recommended that a simple Manual status sheet is maintained which contains information on when an amendment was received by the CAA and when it was approved.
- 3.3 Verification that the organisation complies with the exposition procedures should be established by the Inspector approving the MOP.
- 3.4 The approval of MOP must be performed by the Authority using the approval recommendation report form CA145-04. The initial approval of the manual is to be accompanied by a MOP approval certificate CA145-08.

4. MOP amendments

- 4.1 The Approved Maintenance Organisation will have reason on occasions to amend the Manual and therefore as this document is an approved document forming one essential element of the AMO Approval, the CAA must ensure that it has an adequate control over the approval of any manual amendments.
- 4.2 The recommended method of Manual amendment approval is to require an approval status page/ record of revision and List of effective pages at the front of the Manual which lists each page and states against each amendment when it was approved by the CAA and the document reference of that approval.
- 4.3 Amendments to the Manual cannot be approved unless they have been received by the CAA.
- 4.4 The Approved Maintenance Organisation must submit each Manual amendment to the CAA for approval. The CAA, when satisfied, must indicate its approval in writing and the Approved Maintenance Organisation must make reference to the approval in the approval status page.

5. Changes in senior personnel

- 5.1 The Approved Maintenance Organisation will have reason on occasions to change one or more of the senior personnel all of whom have to be acceptable to the CAA. Such change "Acceptance of senior management" is an essential element of the Approval and therefore the CAA must ensure that it has adequate control over this process.
- 5.2 A change of accountable manager requires the Approved Maintenance Organisation to submit in writing such fact to the CAA. The CAA will normally accept the accountable manager and in the letter of acceptance request an urgent amendment to the accountable manager exposition statement. In other words, it is essential that the new accountable manager signs the statement of commitment to compliance with the AMO approval requirements as a matter of urgency. The only basis on which the CAA may reject an accountable manager is where there is clear evidence that he/she previously held a senior position in any Approved Organisation and abused that position by not complying with the particular requirements.
- 5.3 A change of any of the senior personnel other than the accountable manager requires the Approved Maintenance Organisation to submit a notification letter in respect of the particular person to the CAA. If satisfied with the qualifications and experience of the person in relation to the particular position the CAA must indicate acceptance in writing to the Approved Maintenance Organisation.
- 5.4 Changes in senior personnel will require an amendment to the MOP.

6. MOP APPROVAL RECOMMENDATION FORM CA145-04


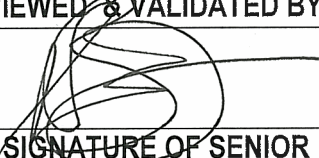
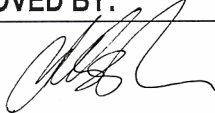
The inspector reviewing the MOP for approval shall complete the form CA145-04. In cases where the manual is found to be contravening with the regulations or where the procedures do not align with the AMO practice, the inspector shall raise findings report. Each finding should be recorded whether it has been rectified or not and should be identified by a simple cross reference to the Part 2 requirement. All non-rectified findings should be copied in writing to the organisation for the necessary corrective action.

7. MOP APPROVAL INFORMATION

The approval of the MOP/amendments shall be signed by the responsible inspector. The initial approval of the manual is to be accompanied by the MOP approval certificate CA145-08. The inspector shall also sign the list of effective pages and the record of revision page as a sign that the manual is approved manual. The inspector shall include the following information when approving the manual;

- 1) Name of the Inspector:
- 2) Signature of recommending Inspector:
- 3) Date of recommendation:
- 4) Form review (quality check):

For CAA record purposes, the inspector shall ensure that the client submits a CAA copy of their manual for record keeping.

DEVELOPED BY:		
	GCINOKUHLE MKHONZA	26 JUNE 2013
SIGNATURE OF SPECIALIST: AIRWORTHINESS	NAME IN BLOCK LETTERS	DATE
REVIEWED & VALIDATED BY:		
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APPROVED BY:		
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SIGNATURE OF GENERAL MANAGER: AIRCRAFT SAFETY	NAME IN BLOCK LETTERS	DATE

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