

DIRECTORATE OF SAFETY REGULATIONS AIRWORTHINESS

Advisory Circular

Revision: 1

Document No.: TCAA-AC-AWS011C

Title: Development of Maintenance Control Manual (MCM)

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1.0 PURPOSE

This Advisory Circular (AC) is issued to provide guidance information on preparing and submitting an Air Operators Maintenance Control Manual (MCM) to the Authority for approval in accordance with the Regulations.

2.0 REFERENCES

- 2.1 Part V of the Civil Aviation (Air Operator Certification and Administration) Regulations.
- 2.2 The Seventh Schedule of the Civil Aviation (Air Operator Certification and Administration) Regulations.
- 2.3 Regulation 30 of the Civil Aviation (Airworthiness) Regulations.
- 2.4 Advisory circular TCAA-AC-GEN002C Development of technical manuals

3.0 GUIDANCE AND PROCEDURES

3.1 General Information

- 3.1.1 The MCM is an air operator's manual for use and guidance by maintenance and operational personnel on maintenance issues. It states the organization management team and the organization commitment to comply with the regulatory requirement and to maintain the standards established during the approval certification process.
- 3.1.2 It explains in detail the operator's maintenance responsibilities, functions and obligations. It further explains the regulatory processes, methods, procedures and capabilities the operator employs to satisfy these regulatory requirements.
- 3.1.3 The MCM defines the operator's aircraft maintenance structure, quality system management, maintenance activity coordination, duties, responsibilities, qualification and training requirements of technical personnel.
- 3.1.4 Observe Human Factors principles as basic aspects requiring Human Factors optimization include:
- 3.1.4.1 written language, which involves not only correct vocabulary and grammar, but also the manner in which they are used;
- 3.1.4.2 typography, including the form of letters and printing and the layout, which has a significant impact on the comprehension of the written material;



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- 3.1.4.3 the use of photographs, diagrams, charts or tables replacing long descriptive text to help comprehension and maintain interest. The use of colour in illustrations reduces the discrimination workload and has a motivational effect;
- 3.1.4.4 consideration of the working environment in which the document is going to be used, when print and page size are determined.

Notes:

- (i) The MCM is normally presented with all other required manuals during the Formal Application phase of the Air Operator Certification.
- (ii) The MCM provides the reference datum by which the Authority conducts the operator's approval inspection, the compliance surveillance and audit functions.
- (iii) The general procedure, guidance and information that may be use to develop manuals in a format acceptable to the Authority are explained in the Development and Preparation of Manuals Advisory Circular No. TCAA-AC-GEN002C.

3.2 MCM Development and Preparation

- 3.2.1 An AOC holder's maintenance control manual shall include the following information which may be issued in one volume or separate parts depending on the size and capacity of the operators maintenance activities –
- a) a description of the administrative agreements between the AOC holder and an AMO;
- b) a description of the maintenance procedures and the procedures for completing and signing the certificate of release to service;
- c) a description of the procedures to ensure each aircraft an AOC holder operates is in an airworthy condition;
- d) a description of the procedures to ensure the operational emergency equipment for each flight is serviceable;
- e) the names and duties of the person or persons required to ensure that all maintenance is carried out in accordance with the maintenance control manual;
- f) a reference to the maintenance programme required by the Civil Aviation Regulations.



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- g) a description of the methods for completion and retention of the operator's maintenance records required by the Civil Aviation Regulations.
- h) a description of the procedures for monitoring, assessing and reporting maintenance and operational experience;
- i) a description of the procedures for obtaining and assessing continued airworthiness information and implementing any resulting actions from the organisation responsible for the type design, and shall implement any other actions considered necessary by the State of Registry;
- j) a system of ensuring that any fault, malfunctions, defects and other occurrences that cause or might cause adverse effects on the continuing airworthiness of aircraft shall be transmitted to the organization responsible for the type design of that aircraft and in accordance with the Civil Aviation Regulations;
- k) a description of the procedures for implementing mandatory continuing airworthiness information as required by the Civil Aviation (Airworthiness) Regulations.
- l) a description of establishing and maintaining a system of analysis and continued monitoring of the performance and efficiency of the maintenance programme in order to correct any deficiency in that programme as required by the Civil Aviation Regulations.
- m) a description of aircraft types and models to which the manual applies;
- n) a description of procedures for ensuring that un-serviceability affecting airworthiness are recorded and rectified;
- o) a description of the procedures for reporting to the State of Registry and the state of the operator of significant in- service occurrences; and
- p) a description of the operators safety management system as required by the Civil Aviation Regulations.

Note: An AOC holder shall not provide for use of its personnel in commercial air transport, a Maintenance Control Manual or its part that has not been reviewed and approved by the Authority.



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3.3 The MCM Content Format

- 3.3.1 An AOC holder or applicant for an AOC shall submit and maintain a Maintenance Control Manual containing at least the information set out in the Seventh Schedule of the Civil Aviation (Air Operator Certification and Administration) Regulations.
- 3.3.2 The manual may be put together in one volume or separate subject user volumes provided all applicable subjects are covered as indicated in the Seventh Schedule.

3.4 MCM Approval

- 3.4.1 The MCM should be submitted to the Authority for approval (this is normally during the Formal Application phase of the AOC certification). It should be submitted with the Statement of Compliance document which identifies in what section of the MCM the applicable requirements of the Regulations have been complied with.
- 3.4.2 If discrepancies are found the Authority will notify the air operator or applicant in writing about the observed discrepancies and recommendations, outlining what will be required to correct the discrepancies. If it becomes apparent that the amendment of the manuals is likely to delay commencement of the inspection as indicated in the Schedule of Events, the applicant is notified.

Note: Normally the certification process cannot proceed until the Authority is satisfied and has accepted the MCM.

3.4.3 When the Authority is satisfied that the MCM meets the requirements the List of Effective Pages will be stamped approved by the Authority and returned to the operator A copy of the approved MCM will be retained by the Authority

3.5 Amendments to the Approved MCM

- 3.5.1 The operator shall submit all proposed amendments to the MCM to the Authority for approval before implementation.
- 3.5.2 The Authority will review all amendments to the manuals. The Authority shall not limit this review to the amendments alone but also the impact of the changes on the overall manual system.
- 3.5.3 Continuous review of the manuals by the operator is necessary because both the aviation environment and the operations are constantly changing.
- 3.6 In general, procedures for a specific task or activity should address the following question:



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Who does what, how, when and in coordination with whom? Note.— This list is indicative and not exhaustive.

WHO:

- a) Define, as clearly as possible, the entities (e.g. CAA department or job position concerned) in charge of each task.
- b) Define who has the authority to decide, particularly with respect to enforcement aspects.
- c) Define who has the authority to approve the results, reports, etc. or to sign letters, reports, licences, certificates, etc.

WHAT:

- a) Define each step of the process and each task to be performed.
- b) Indicate the expected result (report, licence, certificate, etc.).
- c) When applicable, indicate (and attach to the procedure) the template to be used or the format of the result.
- d) As necessary, establish the link with other procedures.

HOW:

- a) Provide the necessary practical details and methodology, as applicable, for each task.
- b) Indicate the sequence of actions.
- c) Indicate the type of documents to be reviewed and how.
- d) Describe ways and means to ensure the traceability of the activity (including the documents, often copies thereof, to be retained).
- e) Refer to applicable checklists or forms used for the conduct of the activity at the points in the procedure where they are to be used.

WHEN:

- a) If the procedure is part of a process, the step of the process at which the said procedure takes place.
- b) For repetitive action (e.g. continuing surveillance), the periodicity and the maximum interval between two actions.
- c) The maximum time period for completion of each task or the deadline for completion of each step.

IN COORDINATION WITH WHOM — If external entities participate in the activity, they need to be identified as clearly as possible.

Director Safety Regulation

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