

# NEPALESE CIVIL AIRWORTHINESS REQUIREMENTS

## SECTION E

### MANUALS AND RECORDS

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#### CHAPTER E.2

ISSUE 4

JANUARY 2009

#### **OPERATOR'S MAINTENANCE CONTROL MANUAL/ MAINTENANCE PROCEDURE MANUAL**

##### **1. GENERAL**

- 1.1 Chapter C.1 of these Requirements prescribes that any organization performing maintenance on aircraft or aircraft component shall be approved for the purpose. The operator shall provide, for the use and guidance of maintenance and operational personnel concerned, a maintenance control manual, acceptable to Director General. The design of the manual shall observe human factors principles.
- 1.2 Chapter D.1 of these Requirements prescribes the conditions for grant of approval to a Maintenance Organization and requires that its organization and procedures shall be detailed in a Maintenance Control Manual and if the maintenance organization forms part of an aircraft operator's organization, it shall be covered by the Operator's Maintenance Procedure Manual
- 1.3 This Requirements, in accordance with Annex-6 to the Convention, prescribes that a Maintenance Control Manual or Maintenance Procedure Manual together with all amendments and/or revisions to it, as applicable be provided by each approved maintenance organization and it specifies the minimum content required for approval of such a manual including any mandatory requirement specified by the Director General.
- 1.4 Each approved maintenance organization shall ensure that there is provided, for the use and guidance of maintenance and operational personnel concerned, an approved Maintenance Control Manual or Maintenance Procedure Manual, as applicable containing the information specified in paragraph 2.
- 1.5 The approved maintenance organization shall ensure that his Maintenance Control Manual or Maintenance Procedure Manual, as applicable is amended or revised as is necessary to keep the information contained therein up to date.
- 1.6 The approved maintenance organization shall ensure good maintenance practices and compliance with the relevant requirements of Maintenance Control Manual or Maintenance Procedure Manual.
- 1.7 Copies of all revisions and amendments of the Maintenance Control Manual or Maintenance Procedure Manual shall be furnished promptly to all organizations or persons to whom the manual has been issued.

- 1.8 The Operator's approved Maintenance Control Manual or Maintenance Procedure Manual, as applicable shall be designated on the Certificate of Airworthiness for each aircraft.
- 1.9 The operator shall provide the state of operator and the state of registry with a copy of the operator's maintenance control manual, together with all amendments and/or to it and shall incorporate in it such mandatory materials as the state of operator of the state of registry may require.

## **2. CONTENTS**

- 2.1 An Operator's Maintenance Control Manual or Maintenance Procedure Manual shall contain:
- a) a description of the procedures required to ensure that:
    - 1) each aeroplane is maintained in an airworthy condition;
    - 2) the operational and emergency equipment necessary for the intended flight is serviceable;
    - 3) the Certificate of Airworthiness of each aeroplane remains valid;
  - b) a description of the administrative arrangements between the operator and the approved maintenance organization;
  - c) a description of the maintenance procedures and the procedures for completing and signing a maintenance release when maintenance is based on a system other than that of an approved maintenance organization;
  - d) the names and duties of the person or persons employed to ensure that all maintenance is carried out in accordance with the maintenance control manual;
  - e) a reference to the maintenance programme (refer to 6.4 of this chapter);
  - f) a description of the methods used for the completion and retention of the operator's maintenance records which show:
    - 1) the total time in service (hours, calendar time and cycles, as appropriate) of the aeroplane and all life-limited components;
    - 2) the current status of compliance with all mandatory continuing airworthiness information;
    - 3) appropriate details of modifications and repairs to the aeroplane or its major components;
    - 4) the time in service (hours, calendar time and cycles, as appropriate) since the last overhaul of the aeroplane or its components subject to a mandatory overhaul life;
    - 5) the current status of aeroplane's compliance with the maintenance programme; and
    - 6) the detailed maintenance records to show that all requirements for the signing of a maintenance release have been met;
  - g) procedures for monitoring and assessing maintenance and operational experience in order to improve the maintenance programme;
  - h) a description of the procedures for monitoring, assessing and reporting maintenance and operational experience to the State of Registry (only applicable to aeroplanes over 5 700 kg and helicopters over 2 730 kg maximum certificated take-off mass);

- i) a description of the procedures for complying with the service information reporting requirements of Annex 8, Part II, 4.3.5 and 4.3.8;
- j) a description of the procedures for assessing continuing airworthiness information and recommendations available from the organization responsible for the type design. Resulting actions considered necessary as a result of the assessment shall be in accordance with a procedure acceptable to the State of Registry (only applicable to aeroplanes over 5700 kg and helicopters over 2730 kg maximum certificated take-off mass);
- k) a description of the procedures for implementing action resulting from mandatory continuing airworthiness information;
- l) a description of establishing and maintaining a system maintaining of analysis and continued monitoring and performance and efficiency of the maintenance programmes, in order to correct any deficiency in that programme (refer to 6.7 of this chapter);
- m) a description of aircraft types and models to which the manual applies;
- n) a description of procedures for ensuring that unserviceabilities affecting airworthiness are recorded and rectified; and
- o) a description of the procedures for advising the State of Registry of significant in-service occurrences.

In Addition following description should be included in Operators Maintenance Control Manual

- i. Procedures to ensure that work interruptions do not adversely effect required inspections.
- ii. A general description of the organization's facilities.
- iii. A general description of the scope of work authorized, under the organization's terms of approval.
- iv. Details of maintenance program to be followed, including procedures for ensuring that all maintenance is performed when required or for obtaining an approved concession in exceptional circumstances.
- v. Methods used for designating critical items requiring inspections.
- vi. Procedures for the recording and certification of maintenance including the use of Technical (Flight) Logs and Aircraft, Engine and Propeller Log Books. A description of the method used for the completion and retention of the maintenance records.
- vii. Procedures to ensure that required maintenance or inspections are handled by appropriately trained, qualified and certificated/licensed personnel.
- viii. Procedures for issue of a Maintenance Release, control of Maintenance Release validity periods and identification of licensed engineers authorized to issue.
- ix. Procedures to ensure that inspections are completed satisfactorily before aircraft are released to service.
- x. Identification of the aircraft types operated and/or maintained and the approved Maintenance Schedule for each type. Procedures for control and amendment of Maintenance Schedules.

*Note: For preference the Maintenance Schedule for each aircraft type should be included in the manual.*

- xi. A description of the organization's maintenance procedures and quality assurance systems of inspection. Details of any reliability and quality assurance or quality control program operated by the Engineering Department.
- xii. Procedures for control of items subject to maintenance On Condition, Condition Monitoring, fixed time overhaul lives (TBOs) or retirement lives, and, if applicable, approved escalation programs.
- xiii. A description of procedures whereby information on faults, malfunctions, defects and other occurrences which cause or might cause adverse effect on the continuing airworthiness of the aircraft is transmitted to the aircraft manufacturer and to the Director General. The approved Minimum Equipment List for each aircraft type.
- xiv. Provision for unscheduled maintenance and rectification of defects when aircraft are away from base.
- xv. Procedures for receiving, assessing, amending and distributing within the maintenance organization all the necessary airworthiness data from the type certificate holder or type design organization including the implementation of applicable Airworthiness Directives and manufactures' Service Bulletins.
- xvi. Procedures for control and amendment of Nepalese Civil Airworthiness Requirements, Flight Standards Notices, Manufacturers' Manuals, Flight Manuals and for the issue of drawings, specifications, work sheets and mandatory instructions.
- xvii. Procedures for control of stores, including incoming goods inspection and shelf life control.
- xviii. Procedures for swinging compasses, weighing aircraft, ground running, etc.
- xix. Procedures for ensuring periodic calibration of precision tools and test equipment.
- xx. Procedures for designing and obtaining approval of modification and repair designs originated by the maintenance organization.
- xxi. Procedures for control of special processes, e.g. anodizing, welding, heat treatment, non-destructive testing, tests of safety equipment, etc.
- xxii. Procedures for contracting out maintenance to foreign organizations, the system for issuing directives on quality standards to be observed by such organizations, and the procedure for inspecting and accepting work completed by such organizations.
- xxiii. Identification of forms used for recording and certification of maintenance. Specimens of such forms should be included in the manual.
- xxiv. A statement signed by the CEO confirming that the manual defines the organization's procedures and associated personnel responsibilities and will be complied with at all times. An organization chart showing the chain of responsibility for maintenance management and quality assurance (control). Key personnel shall be identified by name and their responsibilities be defined by individual job descriptions

- xxv. A definition of the duties and responsibilities of each section or workshop of the Engineering Department. Instructions regarding communication between sections, and procedures when passing work from one shift to the next

### **3. PROCEDURE FOR OBTAINING APPROVAL**

- 3.1 An applicant for approval of an Operator's Maintenance Control Manual or Maintenance Procedure Manual, as applicable must submit two copies of the manual to the Airworthiness Inspection Division, Aviation Safety Department, Civil Aviation Authority of Nepal. If approval is granted, one copy of the manual will be returned, stamped and signed as approved by an authorized person.
- 3.2 After an Operator's Maintenance Control Manual or Maintenance Procedure Manual is approved, any subsequent amendments must also be approved.
- 3.3 If new types of aircraft or equipment are required to be maintained or existing aircraft are changed by modification or repair or the maintenance organization or procedures are changed, an appropriate amendment to the Maintenance Control Manual or Maintenance Procedure Manual, as applicable must be submitted for approval.

**Civil Aviation Authority of Nepal.**