KENYA CIVIL AVIATION AUTHORITY

Advisory Circular

CAA-AC-AWS008A

July 2008

AIRCRAFT MAINTENANCE PROGRAMME - COMMERCIAL AIR OPERATORS

1.0 PURPOSE

This advisory circular is issued to provide guidance information on the regulatory requirements that relate to preparation of a maintenance program for an aircraft engaged in commercial air transport. It gives general information, and explains procedures that would guide an operator to prepare an acceptable aircraft maintenance program as required by Regulation 56 (1) (c) and Regulation 66 of the Civil Aviation (Air Operator Certification and Administration) Regulations.

2.0 REFERENCES

2.1 Part V of the Civil Aviation (Air Operator Certification and Administration) Regulations.

2.2 Regulation 22 of the Civil Aviation (Airworthiness) Regulations.

2.3 Regulations 21 (1) (c), 23 (b) and 40 of the Civil Aviation (Airworthiness) Regulations.

3.0 GUIDANCE AND PROCEDURE

3.1 Interpretations

3.1.1 Maintenance Program – means a document which describes the specific scheduled maintenance tasks, their frequency of completion and related procedures, such as a reliability program,

3.1.2 Applicability – the requirement of an approved maintenance program applies to all aircraft registered in Kenya that shall or are engaged in commercial air transport, ref. CAA (Airworthiness) Regulations, Reg. 22 (a). It is required that during the aircraft certification process the air operator presents the maintenance program applicable to the aircraft operation in question to the Authority for approval.

3.1.3 Maintenance responsibility – Regulation 56 (1) of the Civil Aviation (Air Operator Certification and Administration) Regulations requires that an Air Operator Certificate (AOC) holder ensures the airworthiness of the aircraft and the serviceability of both operational and emergency equipment by carrying out maintenance on the aircraft in accordance with the

approved operator's aircraft maintenance program. It is the operator's responsibility to ensure that each aircraft released to service is airworthy;

3.2 Maintenance Program Requirements

3.2.1 The aircraft maintenance program should be based on aircraft maintenance program information made available by the State of Design or by the organization responsible for the type design. For large aeroplane, this information is normally issued in the form of a maintenance review board report for the particular aircraft type, for small aircrafts it is normally included in the aircraft maintenance manual.

3.2.2 It is recommended that the air operator utilizes relevant, current manufacturer's recommended maintenance program time intervals and maintenance processes.

3.2.3 Deviations from the manufacturer's recommended maintenance practices, time intervals and maintenance processes may be approved by the Authority but only after the air operator has presented acceptable justification.

Note:
(i) Scheduled maintenance intervals may be extended by the Quality Manager on request up to 10% only of the prescribed period, however the extended shall be subtracted from the next maintenance interval.

(ii) The Authority should be notified any time any variation is applied.

3.2.4 Where the operations include ETOPS, it is required that the operator takes account of the special requirements of ETOPS. The ETOPS maintenance program provides standards, guidance and direction necessary to support the intended operations. Maintenance personnel involved should be aware of the special nature of ETOPS and they should have the knowledge, skills and ability to accomplish the requirements of the program.

3.3 Maintenance Program Contents

3.3.1 An approved maintenance program shall include the following:

a) Maintenance tasks and the intervals at which these are to be performed, taking into account the anticipated utilization of the aircraft;

b) A continuing structural integrity and corrosion control program;

c) Procedures for changing or deviating from the established standards.

Note: *Any approved extension to schedule maintenance inspection should be deducted from the next inspection interval period.*

d) Where applicable, condition monitoring and reliability program descriptions for aircraft systems, components and power plants.

e) The maintenance certificates to be issued for the maintenance functions.

f) The persons authorized to sign the maintenance release certificates.

g) Life-limited items and components control system.

h) Unscheduled Maintenance. e.g.

(i) Mechanical irregularities occurring during flight time, such as hard landings, overweight landings, lightening strike or crew observed operation and function defects.

(ii) Inspection irregularity findings: structural, mechanical, operational and functional.

i) Maintenance functions (e.g. component removal, replacement, and system adjustments) that may require carrying out a pre certification test flight to ensure safe performance and operation.

j) Performance test flight schedule for the maintenance functions that require pre-certification flight testing.

k) Critical Maintenance Inspection Items that require a duplicate inspection; these include, but not limited to:

(i) Installation, rigging, and adjustments of engine and flight controls;

(ii) Installation and repair of major structural components;

(iii) Installation of aircraft engines, propellers, and rotors;

(iv) Calibration, or rigging of components such as engines ,propellers,

(v) Transmissions, gearboxes, and navigation equipment.

l) **Off the Aircraft Maintenance –** Overhaul and Repair of Engine, Propeller, and Appliance, whether scheduled or unscheduled, may be independent from maintenance performed on the aircraft. However, the tasks shall be performed in accordance with the procedures approved by the authority, and in compliance with the current manufactures instructions and standards.

Notes:
(i) It is required to develop independent Inspection Check List or Work Package task cards for each scheduled periodic maintenance check (e.g. Daily Inspection Check List, 200hrs. Inspection Work Package task cards etc), with the details and depth of the required inspection which shall be used by the maintenance personnel when performing the inspection tasks, and where applicable indicate the relevant maintenance manual reference.

(ii) The inspection check lists or task cards shall in addition have provisions for the mechanic and the authorised engineer's signature to certify completion of the task.
(iii) To minimize Scheduled maintenance records paper work, a separate signature sheet that references the specific periodic inspection, the check list or task card item and the applicable aircraft registration may be used.

(iv) The certified inspection signature sheets shall form part of the aircraft maintenance inspection records.

3.4 Application of the Approved Maintenance Program – Instructions, standards and procedures to be followed when applying the provisions of the approved maintenance program,

including the recording of scheduled and unscheduled maintenance should be defined in the operator's Maintenance Control Manual (MCM).

3.5 Maintenance Organisation – The approved maintenance program functions must be carried out at a Approved Maintenance Organisation,

3.6 Release to Service

3.6.1 The aircraft shall be returned to service by a Maintenance Organisation approved by the Authority, which as such is responsible for meeting the requirements of Regulation 31 of the Civil Aviation (Approved Maintenance Organisation) Regulations.

3.6.2 A person approving the return to service of an aircraft or aircraft component after any inspection performed in accordance with the Civil Aviation (Operation of Aircraft) Regulations shall make entries on the certificate of release to service and or in the maintenance record of that equipment, information as required by Regulation 41(1) of the Civil Aviation (Airworthiness) Regulations.

3.6.3 It is required that the operator maintains a listing of persons authorized to release the aircraft to service after maintenance even when some of the maintenance is subcontracted to other organizations. The authorized signatories shall be identified by name, occupational title, and the authorization limitation.

3.7 Approval Process

3.7.1 The maintenance program should be submitted to the Authority for approval.

3.7.2 The maintenance program shall be evaluated. When the Authority is satisfied with the program the list of effective pages is stamped and signed approved and returned to the operator. A copy of the approved program will be retained by the Authority.

3.7.3 In the case of foreign registered aircraft, it is required that the maintenance program be approved by the State of Registry. It is then evaluated, and accepted by the Authority if satisfactory.

3.7.4 If discrepancies are found, a notice listing specific discrepancies found and recommendations, outlining what will be required to correct the discrepancies is issued to the operator.

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Civil Aviation Authority