



# Advisory Circular

TCAA-AC-AWS009C

February 2020

## AIRCRAFT MAINTENANCE PROGRAM-GENERAL

### 1.0 PURPOSE

This advisory circular is issued to provide guidance and information on the regulatory requirements that relate to development of maintenance program for aircraft that have been issued with a certificate of airworthiness in the general aviation category.

### 2.0 REFERENCE

2.1 Regulations 12(3) and 18(3) of the Civil Aviation (Airworthiness) Regulations

2.2 Part III of the Civil Aviation (Operation of Aircraft) Regulations

2.3 Regulation 34 of the Civil Aviation (Approved Maintenance Organisation) Regulations.

### 3.0 GUIDANCE AND PROCEDURE

**3.1 General** – General Aviation means an aircraft operation other than a commercial air transport operation or an aerial work operation

**3.2 Applicability of a Maintenance Program** – At C of A issuance, all operators of aircraft are required to present to the Authority a maintenance program for approval for the aircraft. It should be applicable and should have taken into consideration the operation in question, and all the pertinent policies, procedures as required.

#### 3.3 Program Requirements

**3.3.1** An operator of aircraft is required to inspect the aircraft as prescribed in the Civil Aviation Regulations.

**3.3.2** Regulations as referenced in section (2) require the General Aviation aircraft operator to be responsible for maintaining the aircraft in an airworthy condition by ensuring that:

- a) all maintenance which affect airworthiness are performed as prescribed by the state of registry;
- b) maintenance personnel make appropriate entries in the aircraft maintenance records certifying that the aircraft is airworthy;
- c) the certificate of release to service is completed to the effect that the maintenance work performed has been completed satisfactorily; and
- d) in the event there are open discrepancies, the certificate of release to service includes a list of the uncorrected maintenance items which are made a part of the aircraft permanent records.



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**3.3.3** Civil Aviation Regulations forbid a person operating an aircraft for which a manufacturer's instruction for continued airworthiness has been issued that contains an airworthiness limitations section unless the mandatory replacement times, inspection intervals and related procedures have been complied with.

**3.3.4** To ensure proper maintenance, each inspection interval and mandatory replacement times should be stated in terms of calendar times, cycles, and/or aircraft flight hours. Deviations from the Authority and/or manufacturer's recommended maintenance practices, time intervals and maintenance processes require approval of the Authority.

**3.4** Maintenance and inspection shall be carried out in accordance with performance rules required and in compliance with the current manufacturer's maintenance Instructions for continued airworthiness.

**3.5** The Maintenance Program content:

**3.5.1** Maintenance tasks and the intervals at which the tasks are to be performed;

**3.5.2** Applicable, structural integrity program tasks;

**3.5.3** Procedures for changing or deviating from standard practices;

**3.5.4** Condition monitoring and reliability program description for aircraft systems, components and power plants(optional);

**3.5.5** The maintenance certificates to be issued for the maintenance functions;

**3.5.6** The persons authorized to sign the maintenance release certificates;

**3.5.7** Life-limited items and components control system;

**3.5.8** Unscheduled Maintenance. e.g.

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

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

**3.5.9** 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.

**3.5.10** Critical Maintenance Inspection Items that require a duplicate inspection. These include, but not limited to:

a) Installation, rigging, and adjustments of engine and flight controls;



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- b) Installation and repair of major structural components;
- c) Installation of aircraft engines, propellers, and rotors;
- d) Calibration or rigging of components such as engines, propellers, transmissions, gearboxes, and navigation equipment.

**3.5.11** 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. The task shall be performed in accordance with the current manufactures instructions and standards.

## **3.6 Maintenance Facility**

**3.6.1** For large aircraft, turbojet multi-engine aeroplane, turbo propeller-powered multi-engine aeroplane and turbine powered rotorcraft, maintenance of aircraft shall be carried out at an approved maintenance organisation. The facility should have available equipment, tools as are required to carry out aircraft maintenance and appropriately licensed aircraft maintenance engineers to perform the maintenance tasks and to release the aircraft to service.

**3.6.2** The aircraft registered owner is required to prove and show that there is adequate maintenance organization capacity and capability to perform all maintenance functions and activities included in the approved maintenance program. The maintenance organization must be organized so as to ensure there is separate quality control and quality assurance functions.

## **3.7 Release to Service:**

**3.7.1** The aircraft shall be returned to service after maintenance by appropriately licensed aircraft maintenance engineers on the type. Depending on the size and complexity of the aircraft, the Authority may require that the release to service be done by an Approved Maintenance Organization.

**3.7.2** A person approving the return to service of an aircraft or aircraft component after any inspection performed shall make entries of that information on the certificate of release to service and/or in the maintenance record..

## **3.8 Approval Process**

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

**3.8.2** 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.

In the case of foreign registered aircraft, it is required that the maintenance program be approved by the State of Registry.



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**3.8.3** 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.

A handwritten signature in black ink, appearing to read 'P. [unclear]', is positioned above a horizontal line.

**Director Safety Regulation**