



## **TECHNICAL GUIDANCE MATERIAL**

### **CONTINUING AIRWORTHINESS OVERSIGHT OF AIRCRAFT**

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**Subject:** TECHNICAL GUIDANCE MATERIAL FOR CONTINUING AIRWORTHINESS OVERSIGHT OF AIRCRAFT

**Effective Date:** 05 APRIL 2017

#### **A. PURPOSE:**

This guidance material establishes the requirements for the continuing airworthiness oversight of aircraft.

#### **B. REFERENCES:**

CAR 21.08.3  
CAR 135.09.2  
CAR 127.09.2  
CAR 43.03.5  
SA CATS GMR 43.02.8 and 43.02.3.

#### **1. Monitoring of continuing airworthiness of aircraft**

- a) The CAA shall develop a surveillance programme to monitor the airworthiness status of the fleet of aircraft on its register. The CAA should create an annual programme for surveillance, selecting aircraft and/or operators depending on local knowledge of the maintenance environment, operating conditions, airworthiness standards and past surveillance experience. The programme should be used to identify the operator/fleet/aircraft, which are causing the greatest concern.
- b) The programme shall be developed taking into account the number of aircraft on the register, local knowledge and past surveillance activities.
- c) The product surveillance shall focus on a number of key risks airworthiness elements and identify any findings. Furthermore, the owner/operator shall analyse each finding to determine its root cause.
- d) All findings shall be confirmed in writing to the accountable person or organisation.
- e) The CAA shall review all findings, closure actions and recommendations.
- f) If during aircraft surveillance evidence is found showing non-compliance to requirements, the CAA shall take necessary actions.
- g) Each South African commercially operated aircraft shall be audited at least one time per every 12 months.

## **2. Aircraft surveillance program**

### **2.1 Surveillance of aircraft may include:**

- a) In depth surveillance carried out during extensive maintenance that fully encompass selected aspects of an aircraft's airworthiness
- b) Ramp inspection carried out during aircraft operations to monitor the apparent condition of an aircraft's airworthiness.
- c) In-flight inspection, as deemed necessary by the CAA.

### **2.2 The CAA should undertake regular Inspection of aircraft on its register to verify that:-**

- a) the condition of an aircraft as sampled is to a standard acceptable for the Certificate of Airworthiness to remain in force,
- b) the operator/Owner's management of the airworthiness of their aircraft is effective,
- c) satisfactory levels of continued airworthiness are being achieved,
- d) The approval and licenses granted to organisations and persons continue to be applied in a consistent manner to achieve the required standards.

### **2.3 A sample of the key risk airworthiness elements identified on the example should be assessed during each inspection and the surveillance should include the aircraft as the product sample. The surveillance should be a 'deep cut' through the elements or systems selected and all findings should be recorded. owners, operators and maintenance organisations should identify the root cause of each confirmed finding.**

### **2.4 In addition, an annual ramp surveillance programme should be developed based on geographical locations, taking into account airfield activity, and focusing on key issues that can be inspected in the time available without unnecessarily delaying the aircraft.**

### **2.5 Inspectors should be satisfied that the root cause found and the corrective actions taken are adequate to correct the deficiency and to prevent reoccurrence.**

### **2.6 Where the aircraft continuing airworthiness monitoring surveillance visit can be linked to the oversight of an approved organisation then credit can be taken in the monitoring process of that approved organisation.**

## **C. Continuing airworthiness review report**

### **3.1 A full documented review of the aircraft records shall be carried out in order to be satisfied that:**

- a) Airframe, engine and propeller flying hours and associated flight cycles have been properly recorded, and;
- b) The flight manual is applicable to the aircraft configuration , supplements and reflects the latest revision status, and;
- c) All the maintenance due on the aircraft according to the approved maintenance programme has been carried out, and;



- d) All known defects have been corrected or, when applicable, carried forward in a controlled manner, and;
- e) All applicable airworthiness directives have been applied and properly registered, and;
- f) All modifications and repairs applied to the aircraft have been registered and are approved, and;
- g) All service life limited components installed on the aircraft are properly identified, registered and have not exceeded their approved service life limit, and;
- h) All maintenance has been released, and;
- i) The current equipment list and mass and balance statement reflects the configuration of the aircraft and is valid, and;
- j) The aircraft complies with the latest revision of its type design.

**3.2** The CAA shall carry out a physical inspection of the aircraft. For this inspection, the Inspector shall be assisted by qualified personnel of the operator/AMO.

**3.3** Through the physical inspection of the aircraft, the operator/AMO shall ensure that:

- a) All required markings and placards are properly installed, and;
- b) The aircraft complies with its approved flight manual, and;
- c) The aircraft configuration complies with the approved documentation, and;
- d) No evident defect can be found, and;
- e) No inconsistencies can be found between the aircraft and the paragraph (6.1) documented review of records.

#### **D. Findings**

If during aircraft inspection or by other means evidence is found showing non-compliance to requirement, the CAA shall take the following actions:

- a) For Major (safety related) findings, the CAA shall require appropriate corrective action to be taken before further flight and immediate action shall be taken by the CAA to revoke or suspend the airworthiness certificate.
- b) For minor findings, the corrective action required by the CAA shall be appropriate to the nature of the finding.

#### **E. Validity of the certificate of airworthiness**


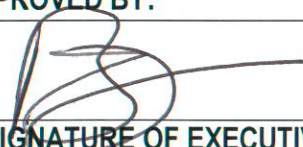
**5.1** A certificate of airworthiness becomes invalid and an aircraft must not fly if:

- a) The continuing airworthiness of the aircraft or any component fitted to the aircraft does not meet the requirements, or;

- b) The aircraft does not remain in conformity with the approved type design ; or
- c) The aircraft has been operated beyond the limitations of the approved flight manual or the airworthiness certificate, without appropriate action being taken; or
- d) The aircraft has been involved in an accident or incident that affects the airworthiness of the aircraft, without subsequent appropriate action to restore airworthiness; or
- e) A modification or repair has not been approved.

## 5.2 Key elements that should be reviewed during the surveillance

- a) Aircraft assessment
- b) Airworthiness directives
- c) Maintenance program
- d) Type design
- e) Reliability program
- f) Mass and balance
- g) Flight manual
- h) Minimum equipment list
- i) Operational equipment
- j) Structural repair manual
- k) Ultimate service life
- l) Configuration control
- m) Records
- n) Markings and placards

<b>REVIEWED &amp; VALIDATED BY:</b>		
	<b>ERIC MATABA</b>	<b>2017 -04- 11</b>
<b>SIGNATURE OF SENIOR MANAGER: FOD</b>	<b>NAME IN BLOCK LETTERS</b>	<b>DATE</b>
<b>APPROVED BY:</b>		
	<b>SIMON SEGWABE</b>	<b>11/04/2017</b>
<b>SIGNATURE OF EXECUTIVE: ASO</b>	<b>NAME IN BLOCK LETTERS</b>	<b>DATE</b>

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