
SHORT/LONG TERM MAINTENANCE ESCALATION APPROVAL PROCEDURES

1.0 PURPOSE

This Advisory Circular is issued to provide information on short-term maintenance escalation based on the approved reliability programme or manufacturers recommendations.

2.0 REFERENCE

2.1 Regulation 70 of the Civil Aviation (Air Operator Certification and Administration) Regulations, 2018

3.0 GUIDANCE AND PROCEDURES

3.1 General Information

3.1.1 Time limitations are maintenance intervals established by the provisions of an approved reliability programme or by an Operators Approved maintenance programme. They are based on continuing analysis and surveillance of a fleet's operating performance.

3.1.2 Under controlled conditions, an operator may use short-term escalation for an individual component, engine or aircraft without affecting safety. These procedures require close monitoring to ensure that they do not conceal unsound maintenance practices, maintenance programme deficiencies, or poor management decisions.

3.1.3 Short-term escalations for operators not under an approved Aircraft Reliability programme must be approved by the Authority.

3.2 Operators with escalations (Maximum 5% TBO) as part of an approved reliability programme do not require prior approval before using an escalation. The operator must, however, inform the Authority of an escalation as soon as possible after the escalation is put into effect.

3.3 A short-term escalation should only be used after carefully analysing the history of the aircraft and its components. A review of the proposed escalation should include:

3.3.1 Previous inspection results;

3.3.2 Supplemental/additional inspection that may be needed to ensure continued airworthiness during the escalation;

3.3.3 Items not covered by the escalation, should not exceed their maintenance intervals;

3.3.4 Cross checking with the overall maintenance programme to ensure that the escalation will not create an unsafe condition;

3.3.5 Ensuring that the programme does not compromise any due mandatory inspection and escalation of repetitive Airworthiness Directives or fatigue life limited parts;

3.3.6 Restrict the occurrence of repetitive short-term escalations that indicate a need for a change in the maintenance programme;

3.3.7 Provide a method for recording all escalations, with provisions for submitting and reporting escalations to the Authority;

3.3.8 Shall require a manufacturer's comment or recommendation

3.4 The procedure and process of applying for approval and management of short and Long term escalations must be well defined in the operators approved maintenance control manual (MCM).

3.5 Procedures for Long Term TBO escalations.

Long term escalations in component, engine, or propeller overhaul intervals must be approved by the Authority and are normally controlled by a Life Developing Program using the sampling method. In the Life Development program engine Overhaul Haul periods may be increased in 10% increments of the currently approved period, but not to exceed 500hrs between samples.

3.6 Program Approval

3.6.1 If an operator wishes to increase the approved TBO he/she should request approval from the Authority to initiate a Life Development program. These approvals are given for specific items by part number.

3.6.2 The request should include full details of the program advising the following details:

- a) The TBO period expected to be achieved,
- b) The sampling intervals proposed,
- c) The name of the overhaul agency to be used for this program (operators should remain with the same overhaul agency during this program)
- d) Evidence that the engine manufacturer supports such an escalation program.

3.6.3 The operator shall also submit justification to support the requested increase.

- a) The justification must include a satisfactory strip report from the last two overhauls carried out at a manufacturers approved overhaul period.
- b) The strip reports must include a statement from the approved overhaul agency supporting an increase in the TBO period.
- c) The data must indicate that the increase will not adversely affect the airworthiness of the aircraft.
- d) Industry experience and manufacturer's recommendations for similar equipment can be used as supporting justification, but shall not be the sole source.

3.7 Sampling Program

In the Life Development program engine O/H periods may be increased in 10% increments of the currently approved period, but not to exceed 500hrs between samples. Movement from one sample period to the next should be based on satisfactory service experience and a teardown examination, by a manufacturer's approved overhaul facility, of at least two exhibit samples at each sample stage. The engines chosen for exhibit must have operated to within 5 percent of the currently approved time interval and must have accrued at least 70% of its operating time with the current operator. No engine may proceed to the next sample stage unless both previous samples were satisfactory and the O/H agency has recommended an increase to the next sample stage.

The Inspector must ensure that the part or engine sampled represents the total sample population and that it has not been given special treatment or been subjected to early inspections by the operator.

Note: under no circumstances may internal components with fatigue lives, established by the manufacturer exceed the manufacturers published periods. These items are excluded from the program.

3.8 Physical inspection of samples

Physical inspection of samples need not be conducted by the Authority if the overhaul agency is approved by the manufacturer to recommend overhaul period increases and properly documents the work.

3.9 Engine Accessories

Engine accessories such as FCU, fuel pumps etc. may not have time interval increases in line with the engine inspection/overhaul time. These items must undergo their own individual escalation program.

4.0 Monitoring.

Close monitoring of the operation may be conducted by the Authority to ensure:

- a) The authorization is not being abused
- b) The manual procedures are being followed



Kenya Civil Aviation Authority