CHAPTER 12

Evaluating a Short-Term Maintenance Escalation For Approval

0.0 LIST OF EFFECTIVE PAGES

CHAPTER TWELVE	PAGE	EFFECTIVE DATE
	1 of 5	10th April, 2023
	2 of 5	10th April, 2023
	3 of 5	10th April, 2023
	4 of 5	10th April, 2023
	5 of 5	10th April, 2023

1.0 PURPOSE

This Chapter is issued to provide guidance for approving short-term maintenance escalation based on operations specifications and evaluation of short-term evaluation request.

2.0 REFERENCE

2.1 Regulation 9.4.1.12 of the Nigeria Civil Aviation Regulations.

2.2 Checklist CL: O-AWS012

3.0 GUIDANCE AND PROCEDURES

3.1 General Information

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

3.1.5 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.

3.1.5 Short-term escalations for operators not under an approved maintenance 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 before the escalation is put into effect.

3.3 Procedure for short term escalation

A short-term escalation should only be used after carefully analyzing the history of the aircraft and its components. The proposed escalation should be reviewed by the assigned inspector as follows:

1. Review previous inspection results;

2. Review the Supplemental/additional inspections that may be needed to ensure continued airworthiness during the escalation and ensure that the operator has plans for them.

3. Ensure that items not covered by the escalation will not exceed their maintenance intervals within the period of escalation.

4. Cross check with the overall maintenance programme to ensure that the escalation will not create an unsafe condition;

5. Ensure that the programme does not compromise any due mandatory inspection and escalation of repetitive Airworthiness Directives or fatigue life limited parts. See 3.7;

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

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

8. Some escalations may require a manufacturer's comment or recommendation.

9. Ensure that the procedure and process of applying for approval and management of short-term escalations is well defined in the operator's approved maintenance control manual (MCM).

3.4 Maximum short-term escalation intervals may be a percentage of an existing interval for a particular inspection, or maybe designated in hours of service, cycles, or in other increments. Except under certain conditions, the maximum time for an escalation is 500 hours' time- in-service or its equivalent. It must not be used repetitively to, in effect, constitute a fleet time extension.

3.5 **Extension of Short-Term Escalations**: The 500-hour maximum time limit for an escalation is usually sufficient for an operator to position and/or repair the affective item. Occasionally, an operator cannot effectively accomplish the task within this time limit. After an in-depth review of this situation, an individual item may be extended beyond the 500-hour limit. In order to do this, an operator must submit justification to the NCAA maintenance inspector prior to approval. This extension remains in effect for a prescribed time limit unless the component or inspection is accomplished prior to the time limit.

3.6 **Use of a Short-Term Escalation Authorization.**

i. By authorizing the use of the operator's short-term escalation procedures, the NCAA is allowing the operator to apply the limitations of OpSpec to aircraft maintenance intervals, airframe component and appliance maintenance intervals, and powerplant component and accessory maintenance intervals. The limitations imposed by OpSpec and the operator's procedures should not allow a short-term escalation that would compromise the airworthiness of an aircraft or any safety of flight issue. Unanticipated situations arise, such as contractor scheduling, conflicts in weather, parts availability, or other unscheduled maintenance; during which the short-term escalation of a maintenance interval may be used.

ii. Principal inspectors (PI) must closely monitor the use of short-term escalation authorizations to ensure certificate holders are not abusing or using the escalation authorizations indiscriminately and that they do not conceal unsound maintenance practices, maintenance program deficiencies, or poor management decisions.

iii. Short-term escalations for aircraft, aircraft systems, or components not subject to a reliability program may only be authorized by the issuance of OpSpec or by NCAA authorization on a case-by-case basis.

iv. Operators operating aircraft, aircraft systems, or components under the controls of an approved reliability program may issue short-term escalations, provided that short-term escalation procedures have been incorporated into their reliability program.

v. The operator must provide policy, procedures, instructions, and/or information in the manual, which allows personnel concerned with short-term escalations to perform their duties and responsibilities to a high degree of safety.

vi. A short-term escalation should only be used after the operator thoroughly evaluates all of the alternatives and gives careful consideration to the operating performance and the continued

airworthiness of the aircraft, systems, and components. A review of the proposed escalation should include the following:

a) If the short-term escalation authorization applies to powerplants; powerplant accessories and components; propellers and gearboxes; and airframe accessories and components, the operator must provide previous inspection results or justifiable data from previous teardown reports.

b) If supplemental inspections are warranted during the escalation period to ensure continued airworthiness of the airframe, system, or component, the operator must provide the NCAA with a supplemental inspection schedule.

vii. Short-term escalations cannot be issued after an item has exceeded an established maintenance program time limitation. PIs should monitor each short-term escalation to ensure that the operator is not using the short-term escalation to hide non-compliance with the operator's time limitations. PIs should look at the current time limitation, the current time, and the proposed escalation to properly monitor for these situations.

NOTE: The short-term escalation must not be construed as a permanent escalation to the task or check interval.

viii. Maximum short-term escalation intervals may be a percentage of an existing time interval for a particular task, or designated in hours of time in service, cycles, or some other identifiable increment. Except under certain conditions, the maximum time allowable for a short-term escalation is 10 percent (not to exceed 500 hours/cycles) time in service. Maintenance tasks or checks controlled by calendar days or years would also have a limit of 10 percent, not to exceed the amount of days it would take the aircraft to reach the 500-hour time in service limit. For example, if an operator's use is 10 hours a day, the maximum time allowable for short-term escalation of a particular calendar task is 10 percent, but may not exceed 50 days (500 hours ÷ 10 hours a day = 50 days). Certificate holders must describe the methods and procedures for calculating short-term escalation intervals in their manual.

ix. The operator must notify the NCAA no later than the next working day following the operator's issuance of the short-term escalation. To ensure continuity between the NCAA and the operator, the NCAA recommends that the operator's program includes procedures to notify the NCAA by telephone within 24 hours after the authorization is issued, followed by written notification no later than 72 hours after issuance of the authorization.

3.7 Prohibitions. Short-term escalation procedures do not apply to the following:

- Intervals specified by Airworthiness Directives (AD);
- Life limits specified by Type Certificate Data Sheets (TCDS);
- Limitations specified by minimum equipment lists (MEL) or Configuration Deviation Lists (CDL);
- Structural sampling periods imposed by Maintenance Review Boards (MRB);
- Certification Maintenance Requirements (CMR) (unless specifically allowed and designated by the CMR document);
- Maintenance Steering Group—3rd Task Force (MSG-3) Failure Effects Categories (FEC) 5 and 8 safety task; and
- Airworthiness Limitations (AWL)
- Fuel system airworthiness limitations (ALI) and
- Critical design configuration control limitations (CDCCL).

3.8 Buying Back of Time.

i. Do not assume that all short-term escalation time granted must be "bought back" at the next inspection. Each carrier must evaluate its program during development and revisions to determine if and when a "buying back"

of time may be required.

ii. Carriers routinely combine individual maintenance tasks with common intervals into letter checks. These letter checks normally run in a series (e.g. C1, C2, C3, etc.). The use of a short-term escalation authorization to extend a letter check that is part of a series of letter checks will also impact the compliance times of individual maintenance tasks that compile the checks.

EXAMPLE: A particular maintenance task is due every 4,000 hours and is added to the C check series. The C1 is due at 1,000 hours, the C2 at 2,000 hours, and so forth. In this scenario, the particular task was placed on the C4 for completion. The operator exercises its short-term escalation process on the C2 check by escalating it 100 hours. After this escalation, the normal repeat interval of 1,000 hours is continued through the rest of the C check series. Now the operator does an individual maintenance task compliance audit and discovers that this particular task, which was required by their maintenance program to be completed at 4,000 hours, was actually completed at 4,100 hours (because of the short-term escalation exercised by the carrier for the C2). Even though this particular task was not part of the C2 package, it is acceptable for the task to have exceeded the maintenance program requirement in the amount equal to the short-term escalation authorized (maximum of 10 percent).

iii. While constructing their check packages, carriers should take particular care to avoid the possibility of including maintenance tasks that are prohibited from being short-term escalated subparagraph 3.7 above refers. If a carrier wishes to include those prohibited tasks, then the PI and the carrier must evaluate the effects of the short-term escalation and determine if buying back of time granted during the short-term escalation is required.

NOTE: In this case, if the item under consideration for a short-term escalation is an FEC 5 or 8 safety task, this must have the concurrence of the MRB and/or the type-operator (TCH).

iv. If the above scenario used a particular 4,000-hour task that was unacceptable for short-term escalation, then the carrier would be in violation unless the time was bought back after the C2 short-term escalation to avoid exceeding the 4,000-hour requirement of the task.

NOTE: For the purposes of this chapter, short-term escalation applies to both inspections and any other maintenance requirements (operational check, functional check, restoration, and discard) of the aircraft, aircraft appliances, and components. Subparagraph 3.7 lists the only items not allowed to be subject to short-term escalation.

Note: The short-term escalation must not be construed as a permanent escalation to the task or check interval.

NOTE: These procedures must be used to evaluate a request for short-term escalation while Checklist CL: O-AWS012 should be used to evaluate short-term escalation / variation procedures in the Maintenance Control Manual/Continuing Airworthiness Management Exposition, Aircraft Maintenance Programme or Reliability Programme for endorsement into the Ops Specs.