



SAFETY DECISION 2025-01

Issue 01

Date of Issue: 3rd February 2025

SUBJECT:

FATIGUE IN AVIATION MAINTENANCE ENVIRONMENT

REFERENCE:

- CAR-145 (Approved Maintenance Organisation)
- CAR-SMS (Safety Management System)
- ICAO DOC 9966 (Manual for the Oversight of Fatigue Management Approaches)

APPLICABILITY:

Approved Maintenance Organisations (AMO)

REASON:

- A detailed analysis was conducted using data from the General Civil Aviation Authority (GCAA) databases, focusing on reported incidents, their root causes, and contributory factors. Among the findings, fatigue emerged as a critical contributing factor to many of the incidents.
- Fatigue is widely recognised as a significant hazard that predictably impairs human performance across various tasks and, if left unchecked, can lead to incidents or accidents. In response to this, the GCAA has organised a dedicated workshop aimed at discussing fatigue issues encountered by the maintenance organisations.
- The workshop's primary objective was to explore strategies to mitigate fatigue-related risks. As a result, a working group was established, comprising GCAA and AMO, to address this challenge collaboratively.
- This Safety Decision (SD) is issued to introduce the fatigue principles and requirements in aircraft maintenance environments.

REQUIREMENTS:

- (a) Organisations required to implement a Safety Management System (SMS) in accordance with CAR SMS shall develop, implement and maintain a process to manage fatigue risks under their SMS. They shall consider the following principles:
 - (1) Organisations required to implement an SMS shall:
 - (i) include Fatigue in the safety policy as hazard to be managed;
 - (ii) identify fatigue hazard using reactive and proactive approaches;



- (iii) assess and mitigate fatigue risk using current SMS process;
 - (iv) include fatigue hazard in SMS safety performance indicator agreed by GCAA;
 - (v) include fatigue management in SMS training; and
 - (vi) incorporate fatigue topics into internal safety communications.
- (2) The maintenance organisations shall integrate fatigue into their internal occurrence reporting system and encourage staff to report.
- (3) Organisations shall consider special circumstances, including:
- (i) Aircraft on Ground (AOG) in a remote station or;
 - (ii) situations where maintenance personnel need to travel significant distances across the time zone;
 - (iii) flight hours as part of the duty limit and sufficient rest periods in order to mitigate the effects of fatigue; and
 - (iv) any additional circumstances that can lead to fatigue risk.
- (b) Maintenance organisations where SMS does not apply shall develop, implement and maintain a process to manage fatigue risks as part of their internal procedures. The following shall be considered:
- (1) include fatigue in the safety and quality policy as hazard to be managed;
 - (2) incorporate fatigue topics into internal safety communications;
 - (3) encourage reporting of fatigue by the maintenance staff;
 - (4) identify fatigue hazard using reactive and proactive approach; and
 - (5) include fatigue into internal occurrence reporting system.

NOTE: GCAA, through the oversight practices, will ensure that maintenance organisations comply with the requirements of fatigue management. In case of noncompliance, GCAA will apply enforcement actions.

CONTACT:

For further instructions, guidance, or clarification you may contact the GCAA principal inspector.