

Advisory Circular

FATIGUE MANAGEMENT PROGRAMME FOR AIR TRAFFIC CONTROLLERS

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GENERAL

Advisory Circulars (ACs) are issued by the Director-General of Civil Aviation (DGCA) from time to time to provide practical guidance or certainty in respect of the statutory requirements for aviation safety. ACs contain information about standards, practices and procedures acceptable to CAAS. An AC may be used to demonstrate compliance with a statutory requirement. The revision number of the AC is indicated in parenthesis in the suffix of the AC number.

PURPOSE

This AC provides guidance to demonstrate compliance with, and information related to, requirements on the establishment of a fatigue management programme for air traffic controllers.

APPLICABILITY

This AC is applicable to the Air Navigation Services Provider (ANSP) operating in accordance with the Manual of Standards – Air Traffic Services (MOS-ATS).

RELATED REGULATIONS

This AC relates specifically to Paragraph 2.7 of the MOS-ATS.

CANCELLATION

Not applicable.

EFFECTIVE DATE

This AC is effective from 4 November 2021.

OTHER REFERENCES

Manual for the Oversight of Fatigue Management Approaches (Doc 9966)

1 FATIGUE MANAGEMENT

- 1.1 This AC provides guidance and information to the ANSP on the development of a fatigue management programme (FMP) in accordance with paragraph 2.7 of the MOS-ATS.
- 1.2 The ANSP should review the FMP periodically to ensure that the FMP continues to fulfil its purpose of managing fatigue-related safety risks.
- 1.3 The ANSP should note that a fatigue-related risk should be managed using the ANSP's safety management system.

2 ROSTERING AND MONITORING PROCESS

- 2.1 For the purpose of demonstrating compliance with the approved scheduling limits, the ANSP should:
 - (a) implement a rostering system that will plan an air traffic controller (ATCO) roster based on the scheduling limits in the FMP and track the ATCO's actual deployment;
 - (b) establish a back-up means of tracking to ensure continuity in rostering and monitoring; and
 - (c) submit a monthly report to the ANS regulator, which includes a summary of any instances of deviation from the approved scheduling limits with the following details:
 - (i) Name of the ATCO;
 - (ii) Stream of the ATCO;
 - (iii) Date of the deviation; and
 - (iv) Scheduling limit(s) that was deviated.

ATCO roster

- 2.2 The roster should be published sufficiently in advance and to minimise late changes to the roster.
- 2.3 When the ANSP provides for the ATCO to swap duties, procedures should be established to ensure that the scheduling limits are not exceeded.

Actual deployment under certain operation circumstances

- 2.4 The ANSP may include in the FMP the types of operational circumstances under which an ATCO may be deployed based on the following two limits:
 - (a) The number of consecutive work days may be extended from 6 to 7 days, where there must be a minimum interval of 48 hours between the end of one consecutive period of duty days and the next;
 - (b) The minimum duration of a non-duty period (between the end of one duty period and the start of the next duty period) of each ATCO may be reduced from 10 hours to 9 hours.

2.5 Where an ATCO has been deployed under paragraph 2.4, the ANSP must notify the ANS Regulator in the monthly report in sub-paragraph 2.1(c).

3 DEVIATION FROM SCHEDULING LIMITS

3.1 The ANSP should implement procedures to exercise discretion to deviate from the approved scheduling limits to address any additional risks associated with unforeseen operational circumstances. The procedures should include the following:

- (a) Scenarios to exercise discretion to deviate from the scheduling limits in the FMP;
- (b) Roles and responsibilities of the relevant personnel;
- (c) Identification of fatigue-related risks and their appropriate mitigations; and
- (d) Notification to the ANS regulator as required in paragraph 2.7.3 of the MOS-ATS.

4 VARIATION TO ADDRESS STRATEGIC OPERATIONAL NEEDS

4.1 The ANSP should include procedures in the FMP for seeking approval from the ANS regulator to vary the scheduling limits to address strategic operational needs and that any associated risk will be managed to attain at least an equivalent level of safety. The procedures should include the following:

- (a) situations for seeking a variation;
- (b) methodology used to carry out the risk assessment to demonstrate that any associated risk will be managed to attain an equivalent level of safety;
- (c) documentation and recording of the variation;
- (d) ANSP's capability to allow continued monitoring through existing SMS activities; and
- (e) personnel or appointment holder responsible for seeking the approval.

4.2 The ANSP should submit the application to vary a scheduling limit to the ANSP regulator at least 6 weeks (or a shorter timeframe as agreed by the ANS regulator) prior to the planned commencement of the variation.

5 TRAINING ON FATIGUE MANAGEMENT

5.1 The ANSP should provide fatigue management training to familiarise the ATCOs and relevant personnel with the principles of fatigue management and ANSP's policies on fatigue management.

5.2 Such training should be developed based on scientific principles and cover the effects of sleep loss or extended wakefulness, circadian phase, or workload (mental or physical activity) that can impair an ATCO's alertness and ability to perform safely.

5.3 The ANSP should keep such training records accordingly.