



MEMORANDUM CIRCULAR NO. 009-2025

TO : ALL CONCERNED

FROM : DIRECTOR GENERAL

SUBJECT : AMENDMENT TO THE MANUAL OF STANDARDS FOR AIR TRAFFIC SERVICES 2nd EDITION INCORPORATING FATIGUE MANAGEMENT IN THE PROVISION OF AIR TRAFFIC CONTROL SERVICES

REFERENCES

- 1) Philippine Civil Aviation Regulations- Air Navigation Services Part 10B
- 2) Philippine Civil Aviation Regulations- Air Navigation Services Part 11
- 3) ICAO Doc 9966 – Manual for the Oversight of Fatigue Management Approaches
- 4) Fatigue Management Guide for Air Traffic Service Providers, First Edition, 2016
- 5) CAAP Regulations Amendment Procedures
- 6) Board Resolution No. 2012-054 dated 28 September 2012

Pursuant to the powers vested in me under the Republic Act 9497, otherwise known as the Civil Aviation Authority Act of 2008, and in accordance with the Regulations Amendment Procedure with Board Resolution No. 2012-054 dated 28 September 2012, I hereby approve the following amendments to the Manual of Standards for Air Traffic Services.

ORIGINAL MOS-ATS 2ND EDITION SUBJECT FOR REVIEW AND REVISION:

MANUAL OF STANDARDS FOR AIR TRAFFIC SERVICES (MOS-ATS)

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CHAPTER 1 - DEFINITION

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Air traffic controller schedule. A plan for allocating air traffic controller duty periods and non-duty periods over a period of time otherwise referred to as a roster.

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Break. A scheduled time when ATC stops working for a brief period.

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Cumulative sleep debt. Sleep loss accumulated when sleep is insufficient for multiple nights (or 24-hr days) in a row. As cumulative sleep debt builds up, performance impairment and objective sleepiness increase progressively, and people tend to become less reliable at assessing their own level of impairment.

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Duty. Any task that an air traffic controller is required by an air traffic services



provider to perform. These tasks include those performed during time-in-position, administrative work and training.

Duty period. A period which starts when an air traffic controller is required by an air traffic services provider to report for or to commence a duty and ends when that person is free from all duties.

Note: - This includes operational duty and breaks.

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Fatigue. A physiological state of reduced mental or physical performance capability resulting from sleep loss, extended wakefulness, circadian phase, and/or workload (mental and/or physical activity) that can impair a person's alertness and ability to perform safety related operational duties.

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Hazard. A condition or an object with the potential to cause or contribute to an aircraft incident or accident.

...

Mitigations. Interventions designed to reduce a specific identified fatigue risk.

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Non-duty period. A continuous and defined period of time, subsequent to and/or prior to duty periods, during which the air traffic controller is free of all duties.

Non-operational duty. Any task that an air traffic controller is required by an air traffic services provider to perform. These tasks include those performed during administrative work and, training and other tasks to be performed outside of operational duty.

...

On-call. Defined period of time, during which an individual is required by the service provider to be available to receive an assignment for a specific duty. Synonymous with standby.

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Operational duty. The period during which an air traffic controller is actually exercising the privileges of the ATC's license at an operational position.

Operational personnel. Personnel involved in aviation activities who are in a position to report safety information.

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Recovery sleep. Sleep required for recovery from the effects of acute sleep loss (in one 24-hour period) or cumulative sleep debt (over multiple consecutive 24-hour periods).

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Roster. (*noun*) A list of planned shifts or work periods within a defined period of time. Synonymous with Schedule. (*verb*) To assign individuals to a schedule or pattern of work. Synonymous with Schedule.

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Safety. The state in which risks associated with aviation activities, related to, or in direct support of the operation of aircraft, are reduced and controlled to an acceptable level.

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Schedule. (*noun*) A list of planned shifts or work periods within a defined period of time. Synonymous with Roster. (*verb*) To assign individuals to a roster or pattern of work. Synonymous with Roster.

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Shift work. Any work pattern that requires an individual to be awake at a time in the circadian body clock cycle that they would normally be asleep.

...

Standby. A defined period of time, during which an individual is required by the service provider to be available to receive an assignment for a specific duty. Synonymous with on-call.

...

Unforeseen operational circumstance. Unexpected conditions that could not reasonably have been predicted and accommodated, such as bad weather or equipment malfunction, which may result in necessary on-the-day operational adjustments.

...

Window of Circadian Low. Time in the circadian body clock cycle when subjective fatigue and sleepiness are greatest and people are least able to do mental or physical work. The WOCL occurs around the time of the daily low point in core body temperature - usually around 0200-0600 when a person is fully adapted to the local time zone. However, there is individual variability in the exact timing of the WOCL.

Note. - A night duty shall be wholly or partly between the window of circadian low.

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CHAPTER 22 - AERODROME FLIGHT INFORMATION SERVICE

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22.5.3 FSS Requirements for Communications

2.2.5.3.1 Air-ground communication

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22.5.3.1.2 Recording facilities should be provided on all such air-ground communication channel.

22.5.3.2 Aeronautical fixed service (ground-ground communications)

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22.5.3.2.2 All facilities for direct-speech communication between an FSS unit and air traffic service units indicated in 2.5.3.2.1 should be provided with recording facilities.

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CHAPTER 23 - FATIGUE MANAGEMENT IN THE PROVISION OF AIR TRAFFIC CONTROL SERVICES

23.1 INTRODUCTION

23.1.1 This chapter defines the prescriptive limitation regulations that take into account acute and cumulative fatigue, circadian factors, and the type of work being undertaken. It includes duty limitation parameters such as maximums for work periods, minimums for non-work periods, and other elements as relevant to the risks associated with the provision of air traffic services.

23.1.2 This chapter also defines both the ATSP's and ATC's responsibilities for effective fatigue management in the workplace.

23.2 PRESCRIPTIVE LIMITATION PARAMETERS FOR AIR TRAFFIC CONTROLLERS.

23.2.1 Responsibilities of Air Traffic Services Provider and ATC Units

23.2.1.1 The Air Traffic Services Provider/ATC Units shall ensure that the operational duty for ATC be guided by the parameters established herein in so far as is reasonably possible, that fatigue does not impair operational safety and efficiency.

23.2.1.2 The ATSP/ATC Units shall not require the ATC to undertake any safety-related task if it is known or suspected that the ATC is fatigued to the extent that safety may be adversely affected.

23.2.1.3 The ATSP/ATC Units shall sufficiently prepare and publish the monthly duty roster or schedule in advance to provide ATCs the opportunity to plan adequate rest. Consideration should be given to the cumulative effects of undertaking long duty hours interspersed with minimum non-work periods, and of avoiding rosters that result in the serious disruption of an established pattern of working and sleeping.

23.2.1.4 The ATSP/ATC Units shall ensure that the monthly duty roster or schedule be kept for a minimum of twelve (12) months to provide evidence of compliance with prescriptive limits and to facilitate inspection or audit by AANSOO safety inspectors.

23.2.1.5 The ATSP/ATC Units must provide for the minimum non-work periods for adequate rest such that the ATC can achieve a suitable sleep period, as well as allowing for consideration of other physiological requirements and any associated traveling or commuting time.

23.2.1.6 The ATSP/ATC Units must train or familiarize the ATC with the principles of fatigue management and the management's policies with regard to fatigue management.

23.2.1.7 ATSP/ATC should provide facilities and opportunities for rest and for the consumption of meals.

23.2.2 Responsibilities of Air Traffic Controllers

23.2.2.1 An ATC shall not perform any safety-relevant tasks when he or she knows that he or she is fatigued or feels unfit to the extent that safety may be adversely affected.

23.2.2.2 Air traffic controllers shall be responsible for obtaining sufficient rest and sleep prior to attending operational duties.

23.2.2.3 ATC should make the best use of the facilities and opportunities that are provided for rest and for the consumption of meals. He or she should plan and use rest periods to ensure that he or she is fully rested.

23.3 DUTY LIMITATION PARAMETERS

23.3.1 Duty Period

- a) The duty period may not exceed twelve (12) hours;
- b) The aggregate of duty period hours must not exceed two hundred (200) hours within a defined period of seven hundred twenty (720) consecutive hours or thirty (30) consecutive days;
- c) There must be at least twelve (12) hours between the end of one duty period and the beginning of the next;
- d) No more than six (6) consecutive days of duty shall be worked; and
- e) If the maximum number of consecutive days of duty is rostered, there shall be a minimum interval of sixty (60) hours between the end of one consecutive period of duty days and the next.

Note: - Scientific and operational factors for consideration: There may be variable limits of duty period throughout the day which reflect task complexity and workload requirements as well as time of day and circadian disruption. There must be sufficient time between duty periods for suitable sleep. The cumulative effects of fatigue over a period of days should be considered.

23.3.2 Operational Duty

- a) No period of operational duty shall exceed two (2) hours;
- b) No operational duty shall exceed two (2) hours without there being a break taken during or at the end of that period; and
- c) A break should total not less than thirty (30) minutes.

Note: - Scientific and operational factors for consideration: Time in the controlling position should be limited based on complexity of task and workload. Breaks should provide sufficient time away from tasks to allow individuals to resume work with a sufficient level of performance. Breaks could be structured to allow napping or

sleeping opportunities if appropriate.

23.3.3 Night Duties

- a) A period of night duty shall be defined as starting at (0130 local) and ending at (0529 local);
- b) A duty which covers all or part of the period of night duty shall not exceed ten (10) hours;
- c) No more than three (3) consecutive duties shall be worked which cover all or part of the period of night duty; and
- d) A minimum period of fifty-four (54) hours shall occur between the end of duties which cover all or part of the period of night duty and the commencement of the next period of duty.

Note: - Scientific and operational factors for consideration: A night duty shall be wholly or partly between the window of circadian low. Consideration should be given to the research with regard to shift length and night work. Recovery time from night duties should allow recovery from any sleep debt accumulated and reversion to normal sleep cycle rhythms.

23.3.4 On call duties

- a) No more than three (3) on-call duties shall be worked in a seven (7) day period; and
- b) The maximum length of on call period of duty where the ATCO does not attend the place of work shall be twenty (20) hours.

Note: - Scientific and operational factors for consideration: Continuous hours of wakefulness and opportunities available to take sleep during the on-call period.

23.4 UNSCHEDULED DUTIES

The Air Traffic Services Provider shall actively manage the assignment of unscheduled duties through operational processes and procedures which contain the following elements:

- a) minimizing the extent of disruption to the timing of a planned duty;
- b) providing protected sleep opportunities (prior to, during and after unscheduled duties);
- c) identifying minimal notification periods for changes to planned duties; and
- d) limiting the number of consecutive days that they may be subject to being assigned unscheduled duties.

23.5 VARIATIONS TO MEET UNEXPECTED OPERATIONAL CIRCUMSTANCES AND RISKS

23.5.1 Unexpected operational circumstances refer to those that do not occur on a regular basis or cannot be reasonably predicted to occur, based on past experience. If they are able to be reasonably predicted (e.g. known seasonal conditions that increase flight times or require additional air traffic control resources), the service provider should be expected to schedule accordingly. The service provider should use mitigations (e.g. schedule "buffer periods" to allow for operational variability or provide additional resources within the prescribed limits), and not rely on the use of variations).

23.5.2 In the context of fatigue management prescriptive regulations, "unusual circumstances" refer to events or operational situations that necessitate deviations from standard duty and rest limitations for air traffic controllers or aviation personnel. Here are some examples:

23.5.2.1 Natural Disasters

a) Example: A natural disaster such as an earthquake, flood, or typhoon that might prevent ATCs to report for work.

b) Variation: Air traffic controllers might be required to work extended hours or skip mandatory rest periods to maintain operations.

23.5.2.2 Unexpected Staffing Shortages

a) Example: A flu outbreak or other health emergency causes a significant number of controllers to call in sick, leaving a facility understaffed.

b) Variation: Remaining controllers may be authorized to extend their shifts or reduce mandatory rest periods to maintain operations.

23.5.2.3 Public Unrest

a) Example: A large-scale public unrest such as labor strikes, civil disobedience, rebellions, protest and other similar events that might prevent ATCs to report for work.

b) Variation: Remaining controllers may be authorized to extend their shifts or reduce mandatory rest periods to maintain operations.

23.5.2.4 Extended Recovery from System Disruptions

a) Example: A critical systems failure (e.g., radar or communications) disrupts operations, and recovery efforts require extended coordination to stabilize the air traffic flow.

b) Variation: Personnel involved in recovery efforts may work beyond normal limits to restore services and manage traffic backlog.

23.5.2.5 Other analogous circumstances related to the foregoing.

23.5.3 These examples highlight the balance between operational demands and safety. While variations are necessary in unexpected operational circumstances, the service provider shall ensure fatigue does not compromise the safety and efficiency of air traffic management. However, if in extreme cases fatigue compromises the safety and efficiency of air traffic operations, contingency procedures of the facility shall apply.

23.5.3.1 Key Considerations for Variations:

a) Risk Assessment: Each variation shall be carefully assessed to ensure fatigue risks are managed and mitigated.

b) Temporary Nature: Variations shall only last as long as the unexpected circumstance persists.

c) FRMS Integration: If the service provider operates under a Fatigue Risk Management System (FRMS), the variation shall align with its data-driven strategies to minimize fatigue risks.

d) Documentation: Variations shall be recorded and justified to ensure compliance with broader safety standards and regulatory oversight.

23.5.3.2 Sample of accepted mitigations during variation:

a) Reducing the air traffic controllers' task or assigning them to less risk working positions during extended hours of duties;

b) Providing more frequent breaks to affected personnel;

c) consolidating working positions when traffic permits.

23.6 VARIATION OR MODIFICATION OF LIMITATIONS

23.6.1 The variation limits shall be dependent upon the operational circumstances and the operational person (e.g. shift supervisor) making an assessment of their fitness for duty.

23.6.2 ATSP shall develop on-the-day response protocol in their MANOPs to manage on-the-day disruptions. Evaluation and acceptance of the response protocol shall be

performed by AANSOO during surveillance activities.

23.7 NOTIFICATION OF ROSTER (SCHEDULE) DETAILS

23.7.1 The ATS Provider or ATC unit shall, upon request, provide AANSOO:

a) A copy of the proposed monthly working roster or schedule and, without request as early as possible, details of any proposed change; and

b) Details of a roster as actually worked including records of the periods of duty worked.

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NEW/AMENDED MOS-ATS 2ND EDITION AFTER REVISION:

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a) Example: A natural disaster such as an earthquake, flood, or typhoon that might prevent ATCs to report for work.

b) Variation: Air traffic controllers might be required to work extended hours or skip mandatory rest periods to maintain operations.

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- b) Temporary Nature: Variations shall only last as long as the unexpected circumstance persists.
- c) FRMS Integration: If the service provider operates under a Fatigue Risk Management System (FRMS), the variation shall align with its data-driven strategies to minimize fatigue risks.
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23.6.2 ATSP shall develop on-the-day response protocol in their MANOPs to manage on-the-day disruptions. Evaluation and acceptance of the response protocol shall be performed by AANSOO during surveillance activities.

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XXX

"End of Amendment"

Separability Clause. - If for any reason, any provision of this Memorandum Circular is

**AMENDMENT TO THE MANUAL OF STANDARDS FOR AIR TRAFFIC SERVICES 2ND EDITION
INCORPORATING FATIGUE MANAGEMENT IN THE PROVISION OF AIR TRAFFIC CONTROL SERVICES**

declared invalid or unconstitutional, the other part or parts thereof which are not affected thereby shall continue to be in full force and effect.

Repealing Clause. - All orders, rules, regulations, and issuances, or parts thereof which are inconsistent with this Memorandum Circular are hereby repealed, superseded, or modified accordingly.

Determination of changes. - To highlight the amendments and/or revisions in the Memorandum Circular, the deleted text shall be shown with strikethrough and the newly inserted text shall be highlighted with grey shading, as illustrated below:

1. Text deleted: ~~Text to be deleted is shown with a line through it.~~
2. New text inserted: **New text is highlighted with grey shading.**
3. New text replacing existing text: ~~Text to be deleted is shown with a line through it~~ followed by the replacement text which is highlighted with grey shading.

Effectivity Clause. - This Memorandum Circular shall take effect fifteen (15) days following completion of its publication in a newspaper of general circulation or the Official Gazette and a copy filed with the U.P. Law Center - Office of the National Administrative Register. These amendments shall be incorporated into the Manual of Standards for Air Traffic Services (MOS-ATS).

Signed this 19 day of MAY 2025, at the Civil Aviation Authority of the Philippines, MIA Road, Pasay City.


LTGEN RAUL L DEL ROSARIO AFP (RET)
Director General