



GOVERNMENT OF INDIA
OFFICE OF DIRECTOR GENERAL OF CIVIL AVIATION
TECHNICAL CENTRE, OPP SAFDARJANG AIRPORT, NEW DELHI

CIVIL AVIATION REQUIREMENTS
SECTION 9 –AIRSPACE AND
AIR NAVIGATION SERVICES STANDARDS
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Sub: Watch duty time limitations (WDTL) and rest requirements for Air Traffic Controllers (ATCOs) engaged in provision of air traffic services.

1. INTRODUCTION

Rule 116 of the Aircraft Rules, 1937 stipulates that every holder of an Air Traffic Controller (ATCO)'s licence shall follow the watch duty time limitations (WDTL) specified by the Director General.

This Civil Aviation Requirement (CAR) lays down the prescriptive limitation regulations in respect of ATCOs engaged in provision of air traffic services and is issued under the provisions of Rule 133A of the Aircraft Rules, 1937.

2. APPLICABILITY

The WDTL contained in this CAR are applicable to all Air Traffic Service provider(s) and licensed ATCOs engaged in provision of air traffic services. The provisions of this CAR is equally applicable to the students and trainee air traffic controllers undertaking live traffic OJT.

3. DEFINITIONS

Airport Arrival Rate (AAR): The arrival capacity of an airport normally expressed in movements per hour.

Air Traffic Controller Schedule (ATC Schedule): A plan for allocating air traffic controller duty periods and non-duty periods over a period of time, otherwise referred to as roster.

Air Traffic Control Unit (ATC Unit): A generic term meaning variously, area control centre, approach control unit or aerodrome control tower.

ATS-in-charge: The senior most executive in Air Traffic Management at the ATS station responsible for managing day-to-day ATM operations.

ATS Station: ATS station means an airport or an ATS centre where air traffic services are provided.

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 ~~time-in-position, administrative work~~ and On-Job-training.

Duty Period: 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: *The time taken for orderly handover / takeover up to a maximum of 15 minutes, shall not be considered to form part of the accepting controller's duty period.*

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.

Night Duty: A period of night duty shall be defined as starting at ~~0130~~ 0030 hrs and ending at ~~0529~~ 0429 hrs of Indian Standard Time (IST).

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

Operational duty (Time-in-position): The period of time when an air traffic controller is exercising the privileges of the air traffic controller's licence at an operational position.

Sector Capacity: The maximum number of flights that may enter a sector per hour averaged over a sustainable period of time (e.g., three hours), to ensure a safe, orderly and efficient traffic flow.

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 (WOCL): 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.

4. AIR TRAFFIC SERVICE PROVIDER'S RESPONSIBILITY

- 4.1. The ATS Provider shall develop and maintain a Fatigue Management Policy for the ATCOs.
- 4.2. The ATS provider shall ensure that watch duty time limitation are not exceeded and that non-duty period / rest period requirements are met as specified in this CAR.
- 4.3. The ATS Provider shall provide education and awareness training on fatigue management and how ATCOs can better manage their own fatigue.
- 4.4. The ATS provider should manage fatigue hazards using the Safety Management System(SMS) process that are in place for managing other types of hazards.
- 4.5. The ATS provider should ensure the provision of adequate facilities and separate designated rest areas for both male and female ATCOs, which shall afford the individual 'quiet space' and facilities for adequate refreshment at each ATS station.

5. ATS-in-charge's responsibility

- 5.1 The ATS-in-charge shall publish the Air Traffic Controller Schedule / duty roster at least five days in advance to provide ATCOs the opportunity to plan adequate rest. The duty roster shall be prepared atleast for a period of ~~30-days~~ two weeks.
- 5.2 A common duty roster may be prepared for all the ATS units or a specific roster may be made for individual ATC units (TWR/APP/AREA/OCC etc.) at the ATS station, as per Air Traffic Management requirements. The decision of ATS-in-charge on the nature of the roster (unit wise or otherwise) shall be final.
- 5.3 Mutual changes of shift within the roster between ATCOs may be permitted subject to ATS-in-charge's approval and provided that shifts worked are in accordance with WDTL. The records of such changes are to be maintained.

~~5.4 No rostered shift shall commence or end between 0001 hrs and 0600 hrs IST.~~

- ~~5.5~~ 5.4 The ATS-in-charge shall ensure that ATCOs do not perform non-ATC administration duties during and / or beyond their duty period. This clause is not applicable to ATS-in-Charge, Airport Director, Watch Supervisory Officer and Co-ordination in Charge at airports.

6. ATCO's responsibility

- 6.1 The licensed ATCOs shall comply with the watch duty time limitations made as per perspective limitation regulations as specified in the CAR.
- 6.2 ATCOs should make best use of the facilities and opportunities that are provided for rest. They should plan and use rest periods to ensure that they are fully rested.
- 6.3 An ATCO should 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.

7. WATCH DUTY TIME LIMITATIONS (WDTL)

7.1 Duty Period

7.1.1 Limit on duty period

- (a) The duty period shall not exceed 12 hours.
- (b) The aggregate of duty period hours shall not exceed beyond the maximum cumulative duty period hours mentioned in the table below:

Maximum duty period limitation within the timeframe (days)	Max Cumulative duty period (hours)
7	48
30	180 190

7.1.2 Interval between duty period

There must be at least 12 hours between the end of one duty period and the beginning of the next duty except for airports having split watch hours and the interval between watch hours is 5 hours or more with the total period of watch hours (including break in between) is 12 hours in a day.

7.1.3 Limit on and interval following consecutive duty period

- (a) No more than 6 consecutive days of duty shall be worked.
- (b) If the maximum number of consecutive days of duty is rostered, there shall be a minimum interval of 48 hours between the end of the one consecutive period of duty days and the next.

Note: The ATS In-charge of an ATS-station shall carry out a Safety Risk Assessment (SRA), if required to reduce the minimum interval to upto 36 hours after following consecutive duty period. Such SRA of the ATS station, shall be accepted by ATSP(AAI) at its Headquarters by ED (Aviation Safety), prior to implementation of such reduction in minimum interval.

7.2 OPERATIONAL DUTY (Time-in-position)

7.2.1 Limit on operational duty

- (a) No period of operational duty shall exceed 2 hours.
- (b) However, at ATC units where workload for any part of the day or night is less than the 50% of defined Airport Arrival Rate(AAR)/ATC Sector capacity and the activity is spasmodic rather than continuous, periods of operational duty, at these times, may be extended to a maximum of four hours.

(c) The decision to assign more than 2 hours of work to an ATCO shall be taken by the ATS-in-charge at an ATS station.

(d) The cumulative time-in-position for an ATCO during the period between 2230 hours and 0600 hours (next day) shall not exceed 4 hours.

7.2.2 Break in operational duty

(a) No operational duty shall exceed 2 hours, without there being a break not be less than 30 minutes, taken during or at the end of that period.

(b) The breaks for operational duty on circumstances beyond two hours, as mentioned in 7.2.1 (b), shall be taken on pro-rata basis (e.g. 45 minutes after 3 hours or 60 minutes after 4 hours).

(c) Breaks shall include all measures necessary to ensure that ATCOs will not be suffering fatigue. A total relief from exercising the privileges of ATCO's license including co-ordination with other ATS units, supervisory roles shall be considered as a break.

7.3 NIGHT DUTIES

7.3.1 Night Duty

(a) A duty which covers all or part of the period of night duty shall not exceed 12 hours.

(b) No more than 2 consecutive duties for two consecutive days shall be worked which cover all or part of the period of night duties.

Note: (a) Consideration should be given while restoring the ATCOs beyond one night shift to account for factors such as fatigue & health conditions of ATCOs. The ATS-in-charge should minimize the rostering of ATCOs in two consecutive night duties for two consecutive days to the maximum extent practicable.

(b) The scientifically accepted work health, safety, security aspect of shift length, operational duty requirements and rest requirements during night duty shall be monitored by ATSP based on Indian social, cultural and demographic contexts and the same shall be submitted to DGCA once in 6 months.

7.3.2 Interval after night duties

a) **One Night duty:** A minimum period of 48 hours shall be provided between the end of duties which cover all or part of the period of one night duty and the commencement of the next period of duty.

b) **Two consecutive Night duties:** A minimum period of 54 hours shall be provided between the end of ~~duties which cover all or part of the period of~~ two consecutive night duties and the commencement of the next period of duty.

8. VARIATION FROM WATCH DUTY TIME LIMITATIONS

8.1 By the DGCA

8.1.1 The DGCA at its discretion may vary any limitations provided in the CAR. Such variations may be made either as a requirement of the DGCA, or in exceptional or extraordinary circumstances, on the request of an Air Traffic Service Provider. The application for variation shall be communicated in writing to DGCA.

8.1.2 The application of variation from watch duty time limitations shall include the following details;

- (a) The published operational hours of the unit/station;
- (b) The reason for the need to deviate;
- (c) The extent of the deviation;
- (d) The period / date and time of enactment of the deviation;
- (e) A safety case, outlining mitigations, to support the deviation,
- (f) Such other information, considered to be relevant.

8.1.3 Variation from watch duty time limitations may be made or granted by DGCA upon such conditions, duration as considered appropriate.

8.2 By the Air Traffic Services Provider

In an unforeseen operational circumstance at an ATS station, the ATS-in-charge may modify WDTL at a unit and obtain ex-post facto approval of Member (ANS). Such modification may only be made to overcome unforeseen difficulties at the unit, provided that modification only be made if the safety and effectiveness of Air Traffic Control will be maintained.

All the records of ex-post facto approval shall be kept for a period of 24 months and will be subject to DGCA oversight.

9. RECORDS

9.1 The ATS provider to ascertain that the prescriptive limitation regulations are functioning, therefore the records shall be kept for 24 months of the duties performed and rest periods provided.

- 9.2 The ATS provider shall ensure that these records include for each ATCOs at least:
- (a) The start, duration and end of each Operational duty period;
 - (b) The start, duration and end of each duty period;
 - (c) Non-duty periods /rest periods.

10. OVERSIGHT

DGCA may carry out inspection / audit of Air Traffic Service Provider and ATCOs at any time to ensure compliance of the provision of the CAR. Relevant records and log books shall be provided promptly to DGCA officers during such inspections / audits.

(~~Arun Kumar~~ Vikram Dev Dutt)

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