



GOVERNMENT OF INDIA

OFFICE OF THE DIRECTOR GENERAL OF CIVIL AVIATION
TECHNICAL CENTRE, OPP SAFDURJUNG AIRPORT, NEW DELHI

CIVIL AVIATION REQUIREMENT
SECTION 7 – FLIGHT CREW STANDARDS
TRAINING AND LICENSING
SERIES J PART III
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Subject: **Duty Period, Flight Duty Period, Flight Time Limitations and Prescribed Rest Periods – Flight crew Engaged in Scheduled Air Transport Operations.**

1. INTRODUCTION

- 1.1 The ICAO Annex 6, Part 1, requires that the State of the operator shall establish regulations for the purpose of managing fatigue. Accordingly, the State shall establish prescriptive regulations for Flight Time, Flight Duty Period, Duty Period and Rest Period Limitations and, if authorizing the operator to use a Fatigue Risk Management System (FRMS) to manage fatigue, establish FRMS Regulations. This CAR lays down the prescriptive fatigue management regulations. The Operator, for the purpose of managing its fatigue related safety risks, is required to establish flight time, flight duty periods, duty period and rest period limitations that are within the prescriptive fatigue management regulations established by this CAR.
- 1.2 In order to enhance safety of aircraft operations and in exercise of powers conferred under Rule 42A of the Aircraft Rules, 1937, read with Rule 133A of Aircraft Rules, 1937, the following Flight Time, Flight Duty Period, Duty Period and Rest Period Limitations for Flight Crew are issued for information, guidance, and compliance by all concerned.
- 1.3 The requirements contained in the CAR supersede all previous communications, letters and instructions issued by the DGCA with regard to Flight crew FDTL for operators of and flight crew engaged in scheduled air transport operations.

2. APPLICABILITY

- 2.1 This CAR is applicable to all Operators and flight crew members engaged in Scheduled Air Transport Operations.
- 2.2 All operators engaged in scheduled air transport operations may continue to operate in compliance with CAR Section 7 Series J Part III Issue III dated 24th April 2019 till approval of their respective scheme in compliance with this CAR or 01 June 2024 whichever is earlier. No operator / flight crew engaged in such operations shall operate beyond 01 June 2024 unless the requirements of this CAR are complied with.

3. DEFINITIONS

3.1 Acclimatized

It means a state in which a crew member's circadian biological clock is synchronised to the time zone where the crew member is. A crew member is considered to be acclimatised to a 3 hours wide time zone surrounding the local time at the point of departure. When the local time at the place where a flight duty commences (departure time zone) differs by more than 3 hours from the local time at the place where the next duty starts, the crew member, for the calculation of the maximum daily flight duty period, is considered to be acclimatised to the departure time zone for the first 48 hours. After 48 hours, the crew member shall be considered acclimatized to the local time where the crew member starts his/her next duty.

3.2 Accommodation

Means, for the purpose of standby and split duty, a quiet and comfortable place not open to the public, with the ability to control light and temperature, equipped with adequate furniture that provides a crew member with the possibility to sleep, with enough capacity to accommodate all crew members present at the same time and with access to food and drink.

3.2.1 Suitable Accommodation

Means, for the purpose of standby, split duty and rest, a separate room for each for crew member located in a quiet environment and equipped with a bed, which is sufficiently ventilated, has a device for regulating temperature and light intensity, and access to food and drink.

3.3 Augmented Flight Crew

Means, a flight crew, which comprises more than the minimum number required to operate the aircraft, allowing each flight crew member to leave the assigned post, for the purpose of in-flight rest, and to be replaced by another flight crew member with equal or higher qualification.

3.4 Break (Split Duty)

Means a period of time within a flight duty period, shorter than a rest period, counting as flight duty and during which a crew member is free of all tasks.

3.5 Duty

Any task that flight crew members are required by the operator to perform, including, for example, flight duty, administrative work, training, positioning and standby when it is likely to induce fatigue.

3.5.1 Duty Period

A period which starts when a flight crew member is required by an operator to report for, or to commence a duty and ends when that person is free from all duties.

3.5.2 Flight Duty Period (FDP)

A period which is intended to cover continuous period of duty that always includes a flight or series of flight for a flight crew member. It commences when a flight crew member is required to report for duty and finishes at engine(s) off at the end of the last flight on which he/she is a flight crew member.

3.5.3 Flight Time (FT)

The total time from the moment an aeroplane first moves for the purpose of taking off until the moment it finally comes to rest at the end of the flight.

Note: "Flight time" as defined here is synonymous with the term "block-to-block" time or "chocks-to-chocks" time in general usage, which is measured from the time an aeroplane first moves for the purpose of take-off until it finally stops at the end of the flight.

3.5.4 Mixed Duty

When a crew member is required to report for a duty in advance of the stipulated reporting time, for a scheduled flight or series of flight, to carry out a duty at the behest of Operator, the time spent on that duty shall be part of the subsequent FDP.

3.6 Flight Crew Member

A licensed crew member charged with duties essential to the operation of an aircraft during a flight duty period.

3.7 Fatigue

A physiological state of reduced mental or physical performance capability resulting from sleep loss or extended wakefulness, circadian phase, or workload (mental and/or physical activity) that can impair a crew member's

alertness and ability to safely operate an aircraft or perform safety related duties.

3.8 Home Base

The location nominated by the Operator, having high degree of permanence from which the crew member normally starts and ends a flight duty or a series of flight duty periods.

3.8.1 Temporary Home Base

The place of posting by the operator where the crew operates and starts a series of Duty Cycles, and which is not the same as Home Base.

3.9 Local Day

Means a 24-hour period, commencing at 00:00 local time.

3.10 Local Night

A period of 8 hours falling between 2200 hours and 0800 hours local time.

3.11 Night Duty

Any Duty Period encroaching upon any portion of the time period between 0000 hrs and 0600 hrs in the time zone to which the crew is acclimatized.

3.12 Operating Crew Member

Is a crew member, carrying out duties in an aircraft, during a sector.

3.13 Positioning

The transferring of a non-operating flight crew member from place to place in any mode of transport at the behest of the operator.

Note: "Positioning" as here defined is synonymous with the term "Deadheading".

3.14 Reporting Time

The time at which flight crew member is required by an operator to report for duty.

3.15 Rest Period

A continuous, uninterrupted and defined period of time, subsequent to or prior to duty, during which a flight crew member is free from all duties, standby and reserve.

3.16 Rest Facility

Means a bunk or seat with leg and foot support suitable for crew members' sleeping on board an aircraft.

3.16.1 Bunk

A bunk or other surface that allows for a flat or near flat sleeping position. It reclines to at least 80° back angle to the vertical and is located separately from both the flight crew compartment and the passenger cabin in an area that allows the crew member to control light, and provides isolation from noise and disturbance.

3.16.2 Isolated Rest Seat

A seat in an aircraft cabin that reclines at least 45° back angle to the vertical, has at least a pitch 55 inches, a seat width of at least 20 inches (50 cm) and provides leg and foot support. It is separated from passengers by at least a curtain to provide darkness and some sound mitigation, and is reasonably free from disturbance by passengers or crew members.

3.16.3 Basic Rest Seat

A seat in an aircraft cabin or flight crew compartment that reclines at least 40° from the vertical, provides leg & foot support and is not adjacent to any seat occupied by passengers.

3.17 Roster

A list provided by an operator of the times when a flight crew member is required to undertake duties.

Note: "Roster" as here defined is synonymous with "Schedule", "Pattern", and "Rotation".

3.18 Standby

It is a defined period of time during which a flight crew member is required by the operator to be available to receive an assignment for a specific duty without an intervening rest period.

3.19 Sector

Means the segment of a Flight Duty Period (FDP) between an aircraft first moving for the purpose of taking off until it comes to rest after landing on the designated parking position.

3.20 Time Zone

Means a defined region of the earth with a uniform local time which differs by one hour, or by part of one hour from the uniform local time of an adjoining region of the earth, irrespective of season.

3.21 Training Flights

Flights for the purpose of Base Training, Familiarization, Conducting Aircraft Training and Checks (Skill Test/IR/PPC).

3.22 Unforeseen Operational Circumstance

An unplanned event, such as unforeseen weather, natural calamity, medical emergency, national requirement for relief and rescue operations (mission oriented), equipment malfunction, runway closure, passenger, aircraft security, etc., that is beyond the control of the operator.

3.23 Ultra-Long Range (ULR) Operations

Continuous non-stop flights between a specific city pair involving any sector having a flight time of over 14 hrs at any time during a calendar year taking into account the mean and seasonal wind changes.

The ULR operations apply to both sectors of a city pair.

3.24 In-flight Rest Period

Means a period of time with in a flight duty time, which is to give a crew member an opportunity to rest before recommencing duty.

3.25 Window Of Circadian Low (WOCL)

WOCL means a period between 0200h and 0600h in the time zone to which a crew member is acclimatized. This estimate of the window is calculated from scientific data on the circadian low of performance, alertness, subject report (i.e. peak fatigue) and body temperature.

4 OPERATOR'S RESPONSIBILITY

4.1 Every operator shall establish a scheme for complying with the limitations for Flight Time, Flight Duty Periods, Duty Periods and Rest Periods specified in this CAR in respect of flight crew members. The operator shall ensure adequate buffer margin in roster planning w.r.t maximum allowable flight time, flight duty period and duty period. The following shall also be defined in the scheme:

4.1.1 Reporting Time. Each Operator must take into account the available airport facilities to ensure that the operating crew gets sufficient time to complete pre-flight activities and have adequate cockpit preparation time. The operator shall define in the 'Scheme' the optimum time of pre-flight dispatch activities and reporting to aircraft after taking into account various factors for domestic and

international flights like aircraft tail swap during transit, airport layout, customs/immigration/security formalities, etc.

- 4.1.2 Post Flight Duty Time. Standard allowance shall be added at the end of flight time-to be counted as 'Duty'- to allow for completion of checks, records and post flight duties, including post flight Breath Analyser requirements, when applicable. The same shall be specified in the FDTL Scheme of the operator, based on the nature of the flight.
- 4.1.3 Local Night. The operators shall define eight hours of local night to cater for seasonal schedules. The 08 hours local night definition may also cater for type of aircraft / Fleet type.
- 4.2 The FDTL scheme shall be submitted to DGCA for approval. The approved scheme shall form part of the Operator's Operations Manual.
- 4.3 The Operator shall not require a flight crew member to perform flight crew duties on a flight if it is known or suspected that the flight crew member is fatigued to the extent that the safety of flight may be adversely affected.
- 4.4 No Operator may schedule any flight crew member for an assignment which shall exceed the prescribed limitation.
- 4.5 Each Operator shall publish the Flight Crew Roster sufficiently in advance which shall include the weekly rest.
- 4.6 Every operator shall assign a Home Base to each flight crew member.
- 4.7 The operator shall define a Temporary Home Base Policy, if assigning temporary home base to flight crew. The minimum and maximum duration of the temporary home base shall be defined by the Operators in their respective FDTL Scheme. The minimum duration shall be 07 days and the maximum recommended is 28 days.
- 4.8 Scheduling Practices: Every Operator should endeavour to strike a balance between commercial imperatives and crew members' ability to work effectively. FDTL limits given in this Document are the 'outer limits' and should be treated as such. Operators should follow the following principles while developing the working schedules:
- 4.8.1 Provide adequate opportunity for rest and 'night time' sleep to each flight crew.
- 4.8.2 Avoid combination of long duty periods with min rest period in planning patterns and plan sufficient rest periods after long flight duty periods.
- 4.8.3 Avoid alternating night / day or late night / early morning duties.
- 4.8.4 Distribute the amount of work, especially fatigue inducing duties, equally amongst available flight crew.

- 4.9 Operators shall ensure that annual training regarding fatigue, its effect on flight crew and measures to mitigate fatigue is imparted to all personnel responsible for implementation of various provisions of this CAR.
- 4.10 Fatigue Report Management. Fatigue reports shall be used as effective tool in identifying and mitigating crew fatigue. Each Operator shall establish a clear policy with respect to fatigue reports. The policy should state not only 'how to raise' a report but also 'what to do' in response to a fatigue report. Executive responsibility for addressing fatigue management shall be defined by the operator.
- 4.10.1 All the fatigue reports and the Action Taken reports shall be preserved by the operator for a period of minimum one year and be made available to the DGCA as and when required. The quarterly fatigue reports after analysis including action taken is to be submitted to DGCA by Head of Operations.
- 4.10.2 Fatigue Reports shall follow a non-punitive and confidentiality policy.

5 RESPONSIBILITY OF FLIGHT CREW MEMBER

- 5.1 No flight crew member may accept an assignment, which shall exceed the prescribed limitation.
- 5.2 Flight crew members shall make best use of facilities and opportunities that are available or provided for rest and for the consumption of meals, and shall plan and use rest periods to ensure that they are fully rested.
- 5.3 A flight crew member shall not perform flight crew duties on a flight if it is known or suspected that the flight crew member is fatigued to the extent that the safety of flight may be adversely affected.

6 FLIGHT TIME, FLIGHT DUTY PERIOD AND DUTY PERIOD LIMITS: TWO PILOT OPERATION

- 6.1 The maximum flight time and maximum flight duty period during any 24 hrs are indicated in the following Table.

Sub Para	Maximum Flight Time	Maximum Flight Duty Period (in Hours)	Maximum No. of Landings
6.1.1	8 hrs	11:00	6
		11.30	5
		12:00	4
		12.30	3
6.1.2	9 hrs	13:00	2
6.1.3	10 hrs	13.00	1
For operations encroaching night duty			
6.1.4	8 hrs	10:00	2

6.2 The maximum duty period during any 24 hours shall not be more than one hour beyond maximum allowable Flight Duty Period as stated in Para 6.1 and Para 7.

Note 1: Para 6.1.3 shall be applicable for operations encroaching night duty beyond 'acclimatized' zone.

Note 2: Para 6.1.4 shall only be applicable for flight operations within the 'acclimatized' zone.

Note 3: Maximum number of Landings in Para 6.1.4 may be increased to 04 for Cargo Operations only. This shall not be applicable for the flight crew operating passenger flights in the same duty cycle. The calculative rest period after such cargo operations shall be 24 hours including one local night from arrival of the flight and local night plus 2 hrs.

7 FLIGHT TIME AND FLIGHT DUTY PERIOD LIMITS: AUGMENTED CREW

7.1 The maximum flight time and maximum flight duty period during any 24 hrs are indicated in the following Table.

Sub Para	Maximum Flight Time	Maximum Flight Duty Period			Max No. of Landings
		Bunk	Isolated Rest Seat	Basic Rest Seat	
7.1.1 (3 Crew Operation)	12 hrs	16 hrs	15 hrs	14 hrs	2
7.1.2 (4 Crew Operations)	14 hrs	18 hrs	16 hrs	NA	1
7.1.3 Above 14 hrs(ULR) For 4 Crew Operation)	17 hrs	21 hrs	NA	NA	1

Note # 1: For flight operations above the limits specified in Para 7.1.3, specific approvals to be sought from DGCA on, case-to-case basis for the city pairs and the departure windows of the flights.

Note # 2: When the FDP starts in the WOCL, the maximum FDP stated in Para 6.1.3 and Para 7.1 of this CAR shall be reduced by 100% of its encroachment up to a maximum of 2 hours. When the FDP ends in or fully encompasses the WOCL, the maximum FDP stated in the table shall be reduced by 50% of its encroachment.

7.2 AUGMENTATION OF FLIGHT CREW AND INFLIGHT REST

- 7.2.1 The operator shall ensure that a Rated Captain is always on duty during the in-flight rest of the other Flight crew.
- 7.2.2 The minimum in-flight rest period shall be a consecutive 90 minutes period for each crew member and 2 consecutive hours for the flight crew members at control during landing.
- 7.2.3 In case of augmented flight crew, the operator shall specify the in-flight rest scheme and shall include the division of duty and rest between the flight crew members being relieved.

8. MAXIMUM CUMULATIVE FLIGHT TIME AND DUTY PERIOD LIMITATIONS

Sub Para	Maximum Cumulative Flight Time Limitations	Maximum Flight Time Limitation (in Hours)	Maximum Cumulative Duty Period
8.1	In 7 consecutive days	35	60
8.2	In 14 consecutive days	65	100
8.3	In 28 consecutive days	100	190
8.4	In 90 consecutive day	300	600
8.5	In 365 consecutive days	1000	1800

9. SPLIT DUTY

Split duty shall be as follows:

No.	Consecutive hours of break	Maximum Extension of the Flight Duty Period
9.1	Less than 3 hours	Nil
9.2	Between 3 hours and 10 hours	A period equal to half the consecutive hours break taken
9.3	>10 hours	No extension permitted

- a) Post-flight and Pre-flight duties / transport time will not be counted as part of break.
- b) If the break is more than 6 consecutive hours or encroaches upon the WOCL, then operator will provide Suitable Accommodation. However, if the break is less than 6 hrs., the operator shall provide 'Accommodation' to the flight crew.
- c) Parts of the Flight Duty Period before and after the break shall not exceed 10 hours.
- d) The split duty shall count in full as FDP.
- e) No extension shall be permitted if FDP encroaches night duty period

10. MINIMUM REST PERIODS

10.1 Rest Period (Before the Flight)

The minimum rest, which must be provided before undertaking a flight duty period, shall be:

a) At least as long as the preceding duty period,

OR

- b) i) 12 hours
ii) 18 hours for crossing more than 3, up to 7 time zones
iii) 36 hours for crossing more than 7 time zones

whichever is greater.

Note 1: When a crew is positioned within the 'acclimatized' zone to operate a flight (not within the purview of Para12), the rest after the positioning and before the flight will be 12 hrs, provided that rest stipulated at Para 10.1 above has been availed prior to the positioning.

Note 2: For a Flight Crew operating between 3 to 7 Time Zones, and proceeding to farther Time Zones, the crew shall be provided a minimum rest, at lay over station, as per para 10.1, before proceeding beyond on the next Flight Duty Period. The Time Zone difference for subsequent flight will be calculated from the place where the crew is acclimatized.

Note 3: In case a flight crew returns to duty after leave, the minimum rest period of 10 hrs (from 0000hrs) shall be given. The leaves shall be considered as local days.

10.2 For all other duties, apart from Flight Duty/ Mixed Duty, a minimum rest period of 10 hours shall be given. Operators to define the same in their FDTL Scheme.

10.3 Rest Period After Standby

10.3.1 When any period of standby finishes, 12 hrs rest shall be given.

10.3.2 When standby culminates in to a duty, then the rest period shall be decided based on total period of duty i.e. the duty plus the percentage of standby counted for duty.

10.4 If the preceding duty period, which includes any time spent on positioning, exceeds 18 hours, then the ensuing rest period shall include a local night

10.5 The operator shall include in the 'Scheme' the optimum time of transportation after taking into account various factors and on ensuring that the rest period does not get reduced below the minimum rest requirements. Period of transportation to and from an airport shall neither be counted towards duty time

nor rest period. However, if the transportation time is more than 30 minutes, the rest shall increase by twice of time above 30 minutes.

10.6 Weekly Rest

An operator shall ensure that the minimum weekly rest of continuous 48 hours including two local nights is provided such that there shall never be more than 168 hours between the end of one weekly rest period and the start of the next.

Note 1: The operator shall provide weekly rest at Home Base/Temporary Home Base.

Note 2: The 168 hours shall be calculated from the end of preceding weekly rest period.

10.6.1 The weekly rest shall be increased to 60 hours including 2 local nights in the event that the crew undertakes more than 3 duties wherein the flight duty period encroaches in to the Night Duty period, in the preceding 168 hrs. period.

10.7 Rest After Return to Home Base

Operator shall ensure that effects on flight crew members of time zone differences will be compensated by additional rest. Minimum rest including local nights shall be given to any flight crew member after return to home base, if the flight crew who has crossed more than the specified time zones wherein the crew has operated flight(s) away from home base according to the Table given below:

Time Zone difference	Rest (in Hours)	Local Nights
More than 3 and up to 7	36	2
More than 7	72	3

11. STANDBY

11.1 General

11.1.1 Operators shall include 'Standby' as part of their regular rosters and concerned flight crew shall be kept notified.

11.2 Standby Period

11.2.1 Standby period shall not extend beyond 12 hours. However, a maximum standby at airport (with or without sleeping quarters) shall not exceed 8 hours.

11.2.2 If the standby period is at the airport and

- a) Standby culminates into a flight duty then the total period (i.e. 100%) shall be counted towards the flight duty period and also towards cumulative duty period.
- b) Standby does not culminate into a flight duty then the total period (i.e. 100%) shall be counted towards cumulative duty period.

11.2.3 If the standby period is at home or in a hotel and culminates into duty

- a) Within first 6 hours then no part of standby shall be considered as part of flight duty period or cumulative duty period.
- b) At 6 hours or later then flight duty period shall be reduced by 50% of the standby time.

11.2.4 If standby period is at home or in a hotel and does not culminate into a duty then, 25% of its time shall be considered under cumulative duty.

12. POSITIONING

12.1 All the time spent on positioning on the behest of the operator shall be counted as duty.

12.2 Positioning time should be a part of a flight duty period when it immediately precedes (i.e. without an intervening rest period) a flight duty period in which that person participates as a flight crew member.

12.3 Positioning after operating a flight duty period without an intervening rest period shall be counted as duty period for determining the rest period.

12.4 Positioning should not count as an operating sector when planning or calculating a flight duty period.

Positioning shall be counted as a landing, if after a positioning journey, the crew spends less than the minimum rest period at suitable accommodation provided by the operator, and then extends FDP using Split Duty.

13. CONSECUTIVE NIGHT OPERATION

13.1 Flight crew shall neither be detailed nor undertake any flight duty between periods embracing 0000 to 0600 hrs local time for more than two consecutive nights except once within a period of 168 hours.

13.2 For a flight crew member remaining less than 48 hours away from home-base/domicile time, two consecutive nights is estimated to be referred to local time at the point of first departure of flight schedule

13.3 Flight crew shall also not be detailed or undertake any duty between the hours of 0000 to 0600 hrs prior to utilizing the provisions of 13.1 above.

- 13.4 When a crew has undertaken duties in consecutive nights, then for transition to flights beyond period 0000 to 0600 hrs, he/ she should not be scheduled for a flight which is commencing prior to, at least 24 hrs including one local night from arrival of the flight and prior to company local night plus 2 hrs.

14. TRAINING FLIGHTS

- 14.1 Whenever training flight is conducted by the Flight Crew, before or after operating a commercial operation, entire such period including training flight shall count for Flight Duty Time/Flight Time/number of landings etc.
- 14.2 The Training flights are conducted beyond the provisions of table 6.1.1 as Base Training Flights then the following provisions shall apply:

Base Training for 18+2 Landings

Base training may be conducted with a maximum of up to 18 landings and additional 02 landings which may be carried out by the trainer for positioning the aircraft within 11 hours of flight duty time and 6 hours of flying time with applicable restrictions of WOCL and the following:

- 14.2.1 The first landing for positioning the aircraft may be a Commercial Operations. The landing for positioning back of aircraft has to be a Non-Commercial Operations.
- 14.2.2 Any training apart from base training may be done on the 02-Positioning flights i.e. SLF, Route Checks etc.
- 14.2.3 In case Base training is carried out at night encroaching WOCL, to the extent of full 20 landings, then additional rest of 12 hours to be given including one local night apart from the minimum rest mandated.
- 14.2.4 Before assigning the trainer and the trainee for base training flight the crew member must be provided with the minimum rest period as laid down in para 10.

15. ULTRA LONG RANGE (ULR)

- 15.1 Operator wherein the specific city pair approval is required, shall submit a specific scheme in accordance with the provisions laid down in the CAR.
- 15.2 DGCA may validate such flights for the crew alertness if the operator uses prescriptive regulations. It will, however, be preferable that the Operator adopts FRMS for continuously monitoring of the crew alertness.
- 15.3 Designated flight crew rest facilities shall be provided on board aircraft. These rest facilities shall comprise not less than two independent rest areas with horizontal bunks and shall provide an environment that is conducive to rest/sleep.

15.4 Each ULR flight is to be operated by no less than four (4) pilots of whom two (2) must be pilot-in-command qualified for the route. The duty flight crew shall comprise at least two pilots of which one crew member is Pilot-in-Command qualified.

15.5 The Operations Manual shall contain specific instructions to ensure that the ULR flight meets the following requirements:

15.5.1 ULR Pre-Flight and In-Flight Rest Planning

15.5.1.1 Scheme shall be established to provide guidance to the flight crew on the expected pre-flight preparations and in-flight rest to be taken. Flight crew are to be appropriately rested for the ULR flight.

15.5.1.2 The in-flight rest plan shall provide for at least one (1) rest period which shall not be less than four (4) hours.

15.5.2 Post ULR Flight Rest Period

Flight Crew of the ULR Flight on return to Home Base shall be provided with a period of least 120 hours free of all duties. The rest period shall increase by 24 hours after 02 consecutive ULR flights. This rest period will include both, 'the rest on return to base', as specified at para 10.8 and the 'weekly rest' as specified at para 10.6.

16. UNFORSEEN OPERATIONAL CIRCUMSTANCES

16.1 Flight Time, Flight Duty Period and Landing may be extended due to unforeseen operational circumstances as follows:

- a) Flight Time by maximum of 01 hour.
- b) FDP by maximum of 02 hours.
- c) Only one extra landing may be carried out in the event of a diversion to complete the flight, including a consecutive night for completion of the flight.
- d) The above is subject to a cumulative limit of maximum of 04 hours (Flight Time) and maximum of 08 hrs (FDP) during any period of 28 consecutive days.
- e) In event of Flight Duty Period extension up to 01 hour or Flight Time extension up to 30 minutes, the rest shall increase by 02 hours.
- f) In event of Flight Duty Period extension beyond 01 hour or Flight Time extension beyond 30 minutes, the rest shall increase by 04 hours.
- g) Extension of the maximum basic FDP shall not be combined with split duty in the same duty period.
- h) In case of not utilizing any flight time after commencement of FDP (Reporting) the crew can be utilized after a minimum of twice the time period spent after reporting subject to a minimum limit of 12 hours of rest.

Note 1: Provisions of only para 8.1 to 8.4 can be extended by the limits specified in 16.1 (a) and 16.1 (b).

Note 2: PIC in consultation with other Flight Crew members will convey their willingness or consent to the Head of Operations for operating the flight.

Note 3: Head of Operations will submit a quarterly report to the DGCA on all the extensions granted under the provisions of Para 16.1.

17. MAINTENANCE OF RECORDS AND MONITORING SYSTEM

17.1 Records

Records shall be kept for 18 months of the duties performed and the rest periods provided so as to facilitate inspection by the operator's authorized personnel and surveillance/audit by DGCA officers. The records may be made available to flight crew on request.

17.2 The Operator should ensure that these records include for each flight crew member, at least:

- i) Start, duration and end of each flight duty period.
- ii) Start, duration and end of each duty period.
- iii) Rest periods.
- iv) Flight time.
- v) Cumulative flight time as per Para 8 of this CAR.

Note: For record purposes, the pre-flight report time shall count both as duty and as flight duty, and the post-flight allowance shall count as duty.

17.3 The operator shall also keep records of occasions when flight time and duty were extended as per Para 16 of this CAR.

17.4 If discretion was used for similar reasons on more than 20% of occasions when a particular route or a route pattern is flown, for the seasonal schedule or minimum of 28 Flight Duty Periods, then the operator shall review and change the schedule or the crew scheduling arrangements so as to reduce the frequency at which such events occur.

17.5 In addition, DGCA may require submission of copies and analysis of records in the manner deemed fit.

17.6 Operator shall ensure that the Flight crew members shall maintain a personal record of their daily flight time, duty period, flight duty period and rest periods.

17.7 Above may be achieved through a fool proof, transparent, computerized system. The operator shall evolve a system so that only designated officers of the operator have access to the system. Further, the system shall have a provision of audit trail so that any change made in the data may be tracked down to its source.

- 17.8 The operator, through the computerized system shall ensure that the flight crew member is well within the flight time, flight duty period, duty period and rest period requirements before permitting him to operate a flight.

Sd/-
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