# SACAA CAR/CATS 121.02.13 FLIGHT TIME AND DUTY PERIODS SCHEME (FTDPS) Version 1.0 01-Mar-2016

SACAA FTDPS

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## **PART 1: GENERAL PROVISIONS**

#### **1 DEFINITIONS AND ABBREVIATIONS**

#### 1.1 Definitions

**1.01.1** In these regulations, any word or expression to which a meaning has been assigned in the Act shall have that meaning and, unless the context otherwise indicate –

Term	Definition
Active Flight Deck Duty	means the time spent on duty on the flight deck during a sector excluding any break of not less than one hour whilst being relieved by an additional crew member;
Additional Cabin Crew Member	means a cabin crew member carried over and above the minimum number required by subpart 2 of Part 91;
Additional Flight Crew Member	means a flight crew member carried over and above the minimum number required by subpart 2 of Part 91;
Air Carrier	means a commercial air transport operator providing either a scheduled or a non-scheduled air service;
Cabin Crew (CC)	means the collective of cabin crew members on board an aircraft;
Cabin Crew Member (CCM)	means a crew member licensed in terms of Part 64 who performs, in the interest of safety of passengers, duties assigned by the operator or the PIC of the aircraft, but who shall not act as a flight crew member;
Co-Pilot (CP)	means a licensed, type-rated pilot required by these Regulations to serve in any piloting capacity other than as PIC, but excluding a pilot who is on board the aircraft for the purpose of receiving flight instruction;
Crew Member (CM)	means a person assigned by an operator to carry out duties onboard an aircraft during a flight, that are essential for the safe operation of the aircraft and the successful completion of the flight, and include task specialists who have been assigned in-flight duties related to a specialized use of the aircraft and have been informed of, and accepted the associated risks thereof;
Cruise Relief Pilot (CRP)	means a flight crew member who is assigned to perform pilot tasks during cruise flight, to allow the PIC or a co-pilot to obtain planned rest;
Day Off	for the purposes of an air operator's approved flight time and duty period programme, means a period of not less than 24 consecutive hours free of all duty on behalf of, or contact by the operator. A single day off shall include two local nights. Consecutive days off shall include a further local night for each consecutive day off. A rest period may be included as part of a day off; <b>Note</b> – Contact by the operator may be effected by non-intrusive means such as electronic mail but not by any method that could cause a disturbance or disruption to sleep or other rest.
Duty	means any task that flight or cabin 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;
Duty Period (DP)	means any continuous period throughout which either a crew member flies in any aeroplane, whether as a crew member or as a passenger, at the behest of his or her employer, or otherwise carries out a required duty in the course of his or her employment. It includes any flight duty period, positioning, ground or flight training, office duties, flight watch, home reserve and standby duty;

Term	Definition								
Fatigue	means a physiological state of reduced mental or physical performance capability resulting from sleep loss or extended wakefulness and/or physical activity that can impair a crew member's alertness and ability to safely operate an aircraft or perform safety related duties;								
Flight	means from the moment an aircraft commences its take-off until the moment it completes its next landing;								
Flight Crew Member (FCM)	means a crew member licensed in terms of Part 61 or Part 63 of the regulations and charged with duties essential during flight time;								
Flight Data Analysis	means the process of analysing recorded flight data in order to improve the safety of flight operations;								
Flight Deck	means the area in an aircraft in which is located the flight crew member stations from which the operation of the aircraft is controlled and observer seats, if installed, and in which access is normally restricted to flight crew members only;								
Flight Duty Period (FDP)	means any time during which a person operates in an aircraft as a member of its flight crew and it starts when the flight crew member is required by an operator to report for a flight, and finishes at on-chocks or engines off, on the final sector for that flight crew member;								
Flight Time	<ul> <li>means – <ul> <li>(a) for the operation of aeroplanes, the total time from the moment an aeroplane first moves for the purposes of taking off until the moment it finally comes to rest at the end of the flight;</li> </ul> </li> <li>Note — Flight time as here defined is synonymous with the term "block to block" time or "chock to chock" time in general usage which is measured from the time an aeroplane first moves for the purpose of taking off until it finally stops at the end of the flight.</li> <li>(b) for the operation of helicopters, the total time from the moment a helicopter's rotor blades start turning until the moment the helicopter finally comes to rest at the end of the flight and the rotor blades are stopped; and</li> <li>(c) for the operation of gliders, the total time occupied in flight, whether being towed or not, from the moment the glider first moves for the purpose of taking off until the purpose of taking off until the moment the helicopter being towed or not, from the moment the glider first moves for the purpose of taking off until the purpose of taking off until the moment the helicopter being towed or not, from the moment the glider first moves for the purpose of taking off until the moment it comes to rest at the end of the flight;</li> </ul>								
Flight Watch (FW)	<ul> <li>means –         <ul> <li>(a) in respect of flight time and duty period regulations, a period of time during which a flight crew member is required to check with the operator at specified times as to whether his or her services as a flight crew member will be required and, should this be the case, will report for duty at the time then specified; and</li> <li>(b) in respect of operational control of commercial air transport aircraft, the process by which a flight operations officer provides flight following service to a flight, and provides any operational information as may be requested by the PIC or deemed necessary by the flight operations officer. Meteorological information provided to the PIC by the flight operations officer may include analysis or interpretation;</li> </ul> </li> </ul>								
Night Duty (ND)	means a period of not less than 4 hours between 20h00 and 06h00 of the next day;								
Operations Manual (OM)	means a manual containing procedures, instructions and guidance for use by operational personnel in the execution of their duties as prescribed in Parts 121, 127 and 135 of the regulations;								

Term	Definition
Operations Specifications (OPSPEC)	means the authorizations, conditions and limitations forming part of the AOC and subject to the conditions specified therein or the operations manual;
Pilot (to)	means to manipulate the flight controls of an aircraft during flight time and may also be referred to as 'pilot flying' (PF);
Pilot Flying	means a pilot assigned as a required flight crew member who is manipulating the controls of an aircraft during flight time;
Pilot-In- Command (PIC)	means the pilot designated by the operator as being in command and charged with the safe conduct of a flight, without regard to whether or not he or she is manipulating the controls;
Rest Period	means a continuous and defined period of time, subsequent to and/or prior to duty, during which crew members are free of all duties;
Safety Management System (SMS)	means a systematic approach to managing safety, including the necessary organizational structures, accountabilities, policies and procedures;
Second-In- Command (SIC)	means a licensed pilot serving in a piloting capacity other than as PIC, who is designated as second-in-command, but excluding a pilot who is on board the aircraft for the sole purpose of receiving flight instruction;
Sector	includes take-off, en-route flight time and landing, but excludes circuit operations;
Series of Flights	means consecutive flights that:(a)begin and end within a period of 24 hours; and(b)are all conducted by the same PIC;
Shift Cycle	means a consecutive 28 day period;
Standby Duty (SBY)	for the purposes of an air operator's approved flight time and duty period programme, means a period of time during which a crew member is required to remain at a specified location in order to be available to report for flight duty on notice at the discretion of the operator;

## DIVISION THREE: FLIGHT TIME AND DUTY LIMITATIONS

## CAR 121.02.13 Flight time and duty period scheme

- (1) An air service operator shall
  - (A) establish a scheme for the regulation of flight time and duty periods, rest periods and days free of duty as applicable, for each flight crew member, cabin crew member and flight operations officer that
    - (i) complies with the flight time and duty period limitations, rest periods and days free of duty, prescribed in Document SA-CATS 121; or
    - a system of flight time and duty period limitations, rest periods and days free of duty proposed by the operator where the Director is of the opinion that an equivalent level of safety may be achieved by the operator's proposed scheme; and
  - (B) publish the scheme referred to in sub-regulation (1)(A) in the operations manual referred to in regulation 121.04.2.
- (2) The operator shall not assign and no crew member shall accept an assignment if such assignment is not in compliance with the provisions of the scheme referred to in sub-regulation (1)(A) or if -
  - (A) the operator or crew member knows or has been made aware that such flight assignment will cause the crew member to exceed the flight time and duty periods referred to in sub-regulation (1)(A) while on flight duty; or
  - (B) the crew member is suffering from or, having regard to the circumstances of the flight to be undertaken, is likely to suffer from fatigue which may endanger the safety of the aeroplane or its crew members and passengers.
- (3) The operator shall not schedule a flight crew member for active flight duty for a period exceeding eight consecutive hours during any given flight time and duty period unless authorised in the scheme referred to in sub-regulation (1)(A).
- (4) Where any flight crew member, cabin crew member or flight operations officer is aware of any reason they would be in violation of the scheme referred to in sub-regulation (1)(A), that person shall, without delay, inform the operator. For the purposes of this regulation, the operator shall be taken to mean –
  - (A) the appropriate management personnel if time permits;
  - (B) the duty crew scheduler of the operator; or
  - (C) the duty person responsible for operational control over the flight; and
  - (D) in the case of a cabin crew member, the PIC or such cabin crew member's immediate supervisor.
- (5) The provisions to be included in a flight time and duty scheme referred to in subregulation (1) shall be as prescribed in Document SA-CATS 121.

## CATS 121.02.13 FLIGHT TIME AND DUTY PERIODS SCHEME

**Note** – CAR <u>121.02.13</u> requires each air service operator to establish a scheme for the administration of flight time and duty periods. Operators are reminded that they bear sole responsibility for such schemes being in full compliance with any Acts, laws and regulations that are external to the South African Civil Aviation Regulations, notwithstanding any approvals given by the SACAA.

#### 2 Definitions

- (1) Any word or expression to which a meaning has been assigned in the Act and the Civil Aviation Regulations, bears, when used in this technical standard, the same meaning unless the context indicates otherwise.
- (2) In addition, the definition of "duty period" is applicable to flight operations officers employed by an operator.
- (3) Time spent on flight watch or home reserve may also be deemed to be part of a rest period as provided in section 8(2)(E) of this technical standard.

#### 2.1 Maximum flight time

- (1) An operator may not exceed the following maximum flight times -
  - (A) 40 hours during the preceding seven days;
  - (B) 120 hours during the preceding thirty days;
  - (C) 300 during the preceding 90 days; or
  - (D) 1000 hours during the preceding 365 days.
- (2) If a flight crew member expects his or her cumulative flight hours projected for a particular operation, to exceed the appropriate limit the flight crew member shall inform the operator accordingly.
- (3) Every flight crew member is required to inform the operator of all flying he or she has undertaken if the cumulative amount of such flying and any scheduled duties is likely to exceed the maximum laid down in the Regulations.

#### **3** Operators' schemes and their approval

- (1) An operator shall submit a proposed scheme for the regulation of flight time and duty periods and minimum rest periods to the Director for approval which shall be based upon scientific principles and knowledge, where available, with the aim of ensuring that crew members are performing at an adequate level of alertness.
- (2) Any deviation from the approved scheme shall be submitted to the Director for consideration.
- (3) Non-availability of auto pilot or auto stabilisation systems requires a reduction in flight time and duty period in respect of public air transport and IFR operations.

#### 4 General principles of control of flight, duty and rest time

- (1) The prime objective of any scheme of flight time and duty limitations is to ensure that flight crew members are adequately rested at the beginning of each flight duty period (FDP). Aeroplane operators will therefore need to take account of inter-related planning constraints on –
  - (A) individual duty and rest periods;
  - (B) the length of cycles of duty and the associated periods of rest; and
  - (C) cumulative duty hours within specific periods.
- (2) Duties shall be scheduled within the limits of the operator's scheme.

To allow for unforeseeable delays the pilot-in-command (PIC) may, within prescribed conditions, use his or her discretion to exceed the limits on the day. Nevertheless, flight schedules shall be realistic, and the planning of duties shall be designed to avoid as far as possible exceeding the flight time and duty limits.

(3) Other general considerations in the sensible planning of duties are -

- (A) the need to construct consecutive work patterns which will avoid as far as possible such undesirable rostering practices as alternating day/ night duties and the positioning of flight crews in a manner likely to result in a serious disruption of established sleep/work patterns;
  - (B) the need, particularly where flights are carried out on a programmed basis, to allow a reasonable period for the pre-flight notification of duty to flight crews, other than those on standby duty; and
  - (C) the need to plan time off and also to ensure that crew members are notified of their allocation well in advance.

#### 5 Responsibilities of crew members

It is the responsibility of all flight crew members to make optimum use of the opportunities and facilities for rest provided by the operator, and to plan and use their rest periods properly so as to minimise the risk of fatigue.

#### 6 Standard provisions required for an operator's scheme

- (1) The standard provisions which the Director regards as the basis for an acceptable scheme of flight time and duty limitations and which, if included in an operator's scheme, will facilitate approval by the Director are contained in sections 8 to 14 below.
- (2) Although operators are expected to plan their schemes in accordance with the requirements, it is however, recognised that the standard provisions will not necessarily be completely adaptable to every kind of operation. In exceptional circumstances therefore, operators may apply to have variations from the standard provisions included in their schemes. However, such variations should be kept to a minimum and approval will only be granted where an operator can show that these proposed provisions will ensure an equivalent level of protection against fatigue.

#### 7 Limitations of single flight duty periods – flight deck crew

**Note** – Tables 1-4 referred to in this section may be found at the end of this technical standard.

#### 7.1 Maximum rostered flight duty periods

The maximum rostered FDP (in hours) shall be in accordance with Table 1 or 2, or Table 3 or 4. Rostering limits in the tables may be extended by in-flight relief or split duty under the terms of sections 7.2 and 7.3. On the day, the PIC may at his or her discretion further extend the FDP actually worked in accordance with section 7.6.

#### (1) Maximum FDP – Two pilot crews: Aeroplanes

Table 1 applies when the FDP starts at a place where the flight crew member is acclimatised to local time, and Table 2 applies to other times. To be considered acclimatised for the purpose of this technical standard, a flight crew member shall be allowed three consecutive local nights free of duty within a local time zone band which is two hours wide. He or she will thereafter be considered to remain acclimatised to that same time zone band until he or she ends a duty period at a place where local time falls outside this time zone band.

#### (2) Maximum FDP – Two pilots plus additional flight crew member: Aeroplanes

Table 3 applies when the FDP starts at a place where the flight crew member is acclimatised to local time, and Table 4 applies at other times. To be considered acclimatised for the purposes of this technical standard, a flight crew member shall be allowed three consecutive local nights free of duty within a local time zone band which is two hours wide. He or she will thereafter be considered to remain acclimatised to that same time zone band until he or she ends a duty period at a place where local time falls outside this time zone band.

#### (3) Limits on two flight crew long range operations

(This paragraph does not apply to cabin crew members)

When an aeroplane flight deck crew comprises only two pilots, the allowable FDP is calculated as follows: A sector scheduled for more than 7 hours is considered as a multi-sector flight, as below:

Scheduled	Sectors						
sector times	Acclimatised to local time	Not acclimatised to local time					
Sector length over 7:00 but not more than 9:00	2	4					
Sector length over 9:00 but not more than 11:00	3	4					
Sector length over 11:00	4	Not applicable					

#### 7.2 Extension of flight duty period by in-flight relief

- (1) When any additional flight crew member is carried to provide in-flight relief for the purpose of extending a FDP, he or she shall hold qualifications which will meet the requirements of the operational duty for which he or she is required as a relief.
- (2) When in-flight relief is provided, there shall be available, for the flight crew member who is resting, a comfortable reclining seat or bunk separated and screened from the flight deck and passengers.
- (3) A total of in-flight rest of less than three hours will not count towards extension of an FDP, but where the total of in-flight rest (which need not be consecutive) is three hours or more, the rostered FDP may be extended beyond that permitted in Tables 1 and 2 or 3 and 4 by
  - (A) if rest is taken in a bunk, a period equal to one-half of the total of rest taken, provided that the maximum FDP permissible is 18 hours (or 19 hours in the case of cabin crew members); and
  - (B) if rest is taken in a seat, a period equal to one-third of the total of rest taken, provided that the maximum FDP permissible is 15 hours (or 16 hours in the case of cabin crew members).
- (4) The maximum extension allowable is equivalent to that applying to the basic flight crew member with the least rest.
- (5) Where a flight crew member undertakes a period of in-flight relief and after its completion is wholly free of duty for the remainder of the flight, that part of the flight following completion of duty may be classed as positioning and be subject to the controls on positioning detailed in section 7.4.

#### 7.3 Extension of flight duty period by split duty

When a FDP consists of two or more flight duties separated by less than a minimum rest period, then the FDP may be extended beyond that permitted in the tables by the amounts indicated below –

Consecutive hour rest	Maximum extension of the FDP
Less than 3:00	Nil
3:00 - 10:00	Period equal to half of the consecutive hours rest taken

The rest period shall not include the time required for immediate post-flight and pre-flight duties. When the rest period is not more than six hours it will be sufficient if a quiet and comfortable place is available, not open to the public, but if the rest period is more than six consecutive hours, then a bed shall be provided.

#### 7.4 Positioning

All time spent on positioning as required by the operator is classed as duty, but positioning as a passenger does not count as a sector when assessing the maximum permissible FDP. Positioning, as required by the operator, which immediately precedes a FDP, is included as part of the FDP for the purpose of section 7.1.

#### 7.5 Travelling time

(1) Travelling time other than that time spent on positioning may not be classed as duty time and may not be included in cumulative totals of duty hours.

**Note** – *Travelling time from home to departure aerodrome can become an important factor if long distances are involved. If the journey time from home to the normal departure aerodrome is lengthy, flight crew members should make arrangements for accommodation nearer to their bases to ensure adequate pre-flight rest.* 

- (2) Where travelling time between the aerodrome and sleeping accommodation provided by the operator exceeds thirty minutes each way, the rest period shall be increased by the amount of the excess, or such lesser time as is consistent with a minimum of ten hours at the sleeping accommodation.
- (3) When flight crew members are required to travel from their home to an aerodrome other than the one from which they normally operate, the assumed travelling time from the normal aerodrome to the other aerodrome is classed as positioning and is subject to the controls of positioning detailed in section 7.4.

#### 7.6 Pilot-in-command's discretion to extend a flight duty period

(1) A PIC may, at his or her discretion, extend a FDP beyond the maximum normally permitted, provided he or she is satisfied that the flight can safely be made. In these circumstances the maximum normally permitted is calculated according to what actually happens, not on what was planned to happen. The operator's scheme shall include guidance to PICs on the limits within which discretion to extend a FDP may be exercised. An extension of three hours beyond the maximum normally permitted should be regarded as the maximum, except in cases of emergency.

**Note** – It is important to note that the PIC discretion shall take into consideration whether or not a crew member is suffering from or, having regard to the circumstances of the flight to be undertaken, is likely to suffer from fatigue which may endanger the safety of the aeroplane or its crew members and passengers as provided in CAR <u>121.02.13(2)(b)</u>.

(2) Whenever a PIC so exercises his or her discretion, he or she shall report it to the operator and, should the maximum normally permitted be exceeded by more than two hours, both the PIC and the operator shall submit a written PIC's discretion report – extension of flying duty period, to the Director within thirty days.

#### Notes –

- (a) Discretion reports either concerning extension of a FDP in excess of two hours or reduction of a rest period shall be submitted in the PIC's Discretion Report form, which is available from the SACAA. Those reports will be used by the Director when assessing the realism of particular schedules.
- (b) An emergency in respect of an extension of a FDP is a situation which in the judgment of the PIC presents serious risk to health or safety.

#### 7.7 Delayed reporting time

When flight crew members are informed of a delay before leaving their place of rest the FDP starts at the new reporting time or four hours after the original reporting time, whichever is the earlier. The maximum FDP is based on the original reporting time. This subsection does not apply if flight crew members are given ten hours or more notice of a new reporting time.

#### 8 Rest periods

- (1) It is the responsibility of the operator to notify flight crew members of a FDP and not to schedule them for duty other than flight watch or home reserve, so that adequate and, within reason, uninterrupted pre-flight rest can be obtained by the flight crew before the commencement of the next FDP. Away from base the operator shall provide the opportunity and facilities for the flight crew to obtain adequate pre-flight rest. It is the operator's responsibility to ensure that rest accommodation is satisfactory. When operations are carried out at such short notice that it is impracticable for an operator to ensure that rest accommodation is satisfactory, it will be the PIC's responsibility to obtain satisfactory accommodation.
- (2) The following rest period requirements shall be followed -
  - (A) each flight duty period, as well as flight watch and home reserve, shall be preceded by a rest period of at least
    - (i) nine consecutive hours including a local night;
    - (ii) ten consecutive hours; or
    - (iii) if the preceding FDP, adjusted for split duty, exceeds eleven hours, an additional rest period shall be provided for in the operator's scheme to the satisfaction of the Director;
  - (B) where a flight crew member has completed two consecutive flight duty periods, the aggregate of which exceeds eight hours flight time or eleven hours flight duty time (extensions by in-flight relief or split-duty disregarded), and the intervening rest period has been less than twelve consecutive hours embracing the hours between 22h00 and 06h00 local time, he or she shall have a rest period on the ground of at least twelve consecutive hours embracing the hours 06h00 local time or so much longer as to embrace these hours prior to commencing any further duties, but not necessarily longer than twenty-four consecutive hours; provided that this requirement does not apply in respect of consecutive flight watch and home reserve duties;
  - (C) following fifty hours of duty of any nature associated with his or her employment, except flight watch and home reserve duty, a flight crew member shall have a rest period of not less than twenty-four consecutive hours before commencing further duties;
  - (D) when a flight crew member has completed a flight time and duty period in excess of eighteen hours, he or she shall receive a rest period of at least eighteen hours including a local night before he or she commences any further duties; and
  - (E) time spent on flight watch and home reserve duty prior to a FDP shall not be counted when determining the limitations associated with the FDP.
- (3) Pilot-in-command's discretion to reduce a rest period A PIC may, at his or her discretion, reduce a rest period to below the minimum required by sections 7(2) and 11(2)(b). The exercise of such discretion shall be considered exceptional and should not be used to reduce successive rest periods. A rest period shall be long enough to allow flight crew members at least eight hours rest, at the accommodation where the rest is taken. If a rest period is reduced, the PIC shall submit a report to his or her employer, and if the reduction exceeds two hours, a written report shall be submitted to the Director within thirty days. (See note 1 to section 7.6(2)).
- (4) For the purpose of calculating the minimum rest period before commencement of flight duty, the required post-flight duties on completion of the previous FDP is added to such FDP.

#### 9 Duty periods

(1) The following limits apply –

Duty	Maximum duration				
Flight watch	No limit*				
Home reserve	No limit*				
Positioning	No maximum**				
Standby	Maximum 12:00 in any 24:00 period (not necessarily consecutive)				
Standby + FDP	+20:00				

\* However, the provisions of paragraph (2) apply.

\*\* However, the provisions of section 7.4 apply.

- (2) For the purpose of calculating duty time, the following applies
  - (A) for the calculation of accumulated duty time in terms of section 11, flight watch and home reserve is credited on the basis of eight hours for every period of twenty-four or fewer consecutive hours, or on a one-for-one basis, whichever is the lesser;
  - (B) standby duty time shall count fully as duty time for the calculation of accumulated duty time in terms of sections 8(2)(c) and (d) and 11; and
  - (C) see section 7.4 in respect of positioning time.

#### 10 Days off

- (3) Flight crew members shall
  - (A) not work more than seven consecutive days between days off;
  - (B) have two consecutive days off in any consecutive fourteen days;
  - (C) have a minimum of six days off in any consecutive four weeks at the aerodrome from which they normally operate; and
  - (D) have an average of at least eight days off in each consecutive four week period, averaged over three such periods.

#### 11 Cumulative duty and flying hours

Maximum cumulative duty hours:

- The average weekly total of duty hours may not exceed sixty hours over seven days, or fifty hours averaged over any four consecutive weeks.
- All types of duty, flight duty, ground duty, split duty, stand-by and positioning is counted in full for this purpose.
- Any period of seven or more consecutive days within which the flight crew member is employed on duty other than flight duty, flight watch or home reserve, standby or positioning is not included in calculating the above average weekly total of duty hours.

#### 12 Cabin crew members

- (1) The requirements detailed in this section are applicable to all cabin crew members carried as cabin crew members.
- (2) The limitations which apply to cabin crew members are those contained in sections 7 to 11 applicable to flight deck crew members, but with the following adjustment
  - (A) rostered FDPs may not be more than one hour longer than those permitted to flight deck crew members and contained in section 7.1. In order to remove anomalies which might arise when cabin crew members and flight deck crew members report at different times for the same flight, the maximum FDP for cabin crew members shall be based on the time at which the flight deck crew start their FDP;
  - (B) rostered minimum rest periods must not be more than one hour shorter than those required by flight deck crew as contained in section 8(2);
  - (C) for the purpose of a FDP extension following in-flight rest by cabin crew members
    - (i) a period of a minimum of two consecutive hours of rest shall allow for the extension of such FDP by half the actual rest period; and
    - (ii) where in-flight rest is provided for more than three hours, the provisions of section 7(2)(a)(iii) apply;
    - (iii) the combined sum of standby duty and following FDP may not exceed 21 hours;
    - (iv) the average weekly total of duty hours may not exceed fifty-five hours; and
    - (v) the annual and monthly limits on flying hours need not be applied.

#### **13** Flight operations officer or flight follower maximum duty and rest periods

- (1) An operator's flight time and duty period scheme shall also include the requirements detailed in this section applicable to all flight operations officers and flight followers.
- (2) The maximum duty period to which a flight operations officer or flight follower may be assigned are
  - (A) where the entire duty period falls between the hours of 06h00 and 23h59 local time a flight operations officer or a flight follower may be assigned to a maximum duty period of 10 consecutive hours; and
  - (B) where any part of the duty period falls between the hours of 00h00 and 05h59 a flight operations officer or flight follower may be assigned to a maximum duty period of eight consecutive hours.
- (3) Upon completion of any duty period, a flight operations officer or flight follower shall receive a rest period of not less than 10 consecutive hours.
- (4) Where necessitated by unforeseen operational circumstances, any duty period prescribed in paragraph (2) above may be extended by a maximum of two hours provided
  - (A) the flight operations officer or flight follower has had a rest period of not less than 12 consecutive hours immediately preceding the duty period; and
  - (B) the maximum cumulative duty hours in any 6 day period does not exceed, in the case of a duty period prescribed in paragraph (2)(A), 66 duty hours; and in the case of a duty period prescribed in paragraph (2)(B), 54 duty hours.
- (5) A duty period shall include the time taken to perform all hand-off procedures as laid down in the operator's operations manual.
- (6) Each the flight operations officer or flight follower shall receive not less than one day off in every seven day period exclusive of any earned holidays or allowed sick leave.

#### 14 Records to be maintained

- (1) An operator shall retain flight crew member flight time and duty period records as provided in CAR <u>121.04.6</u>.
- (2) An operator shall retain all PIC discretion reports of extended FDPs and reduced rest periods for a period of at least six months.

ABLES to Technical Standard 121.02.13																
Acclimated																
	Table 1							Table 3								
Local time of start	Sectors - 2 Pilots							Sectors - 3 - Pilots								
	1	2	3	4	5	6	7	8 or more	1	2	3	4	5	6	7	8 or more
00:00 - 04:59	11:00	10:15	9:30	9:00	9:00	9:00	9:00	9:00	13:00	12:15	11:30	10:45	10:00	9:15	9:00	9:00
05:00 - 06:59	13:00	12:15	11:30	10:45	10:00	9:15	9:00	9:00	13:00	12:15	11:30	10:45	10:00	9:15	9:00	9:00
07:00 - 13:59	14:00	13:15	12:30	11:45	11:00	10:15	9:30	9:00	14:00	13:15	12:30	11:45	11:00	10:15	9:30	9:00
14:00 - 20:59	13:00	12:15	11:30	10:45	10:00	9:15	9:00	9:00	13:00	12:15	11:30	10:45	10:00	9:15	9:00	9:00
21:00 - 21:59	12:00	11:15	10:30	9:45	9:00	9:00	9:00	9:00	12:00	11:15	10:30	9:45	9:00	9:00	9:00	9:00
22:00 - 23:59	11:00	10:15	9:30	9:00	9:00	9:00	9:00	9:00	11:00	10:15	9:30	9:00	9:00	9:00	9:00	9:00
						N	ot Acclin	nated								
				Tabl	e 2							Tabl	e 4			
Length of		Sectors - 2 Pilots							Sectors - 3 - Pilots							
preceding rest	1	2	3	4	5	6	7	8 or more	1	2	3	4	5	6	7	8 or more
Up to 18 or over 30	13:00	12:15	11:30	10:45	10:00	9:15	9:00	9:00	13:00	12:15	11:30	10:45	10:00	9:15	9:00	9:00
Between 18 and 30	12:00	11:15	10:30	9:45	9:00	9:00	9:00	9:00	12:00	11:15	10:30	9:45	9:00	9:00	9:00	9:00

TABLES to Technical Standard 121.02.13

**Note** – The reason that available duty times are less following rest periods inside 18 – 30 hours is the aeromedical advice that the quality of rest is less due to the disturbance of the body's natural rhythm.

Acclimated											
Table 5											
Local time of start	Sectors - FA										
	1	2	3	4	5	6	7	8 or more			
00:00 - 04:59	12:00	11:15	10:30	10:00	10:00	10:00	10:00	10:00			
05:00 - 06:59	14:00	13:15	12:30	11:45	11:00	10:15	10:00	10:00			
07:00 - 13:59	15:00	14:15	13:30	12:45	12:00	11:15	10:30	10:00			
14:00 - 20:59	14:00	13:15	12:30	11:45	11:00	10:15	10:00	10:00			
21:00 - 21:59	13:00	12:15	11:30	10:45	10:00	10:00	10:00	10:00			
22:00 - 23:59	12:00	11:15	10:30	10:00	10:00	10:00	10:00	10:00			
			Not Accli	mated							
				Та	ble 6						
Length of preceding	Sectors - FA										
rest	1	2	3	4	5	6	7	8 or more			
Up to 18 or over 30	14:00	13:15	12:30	11:45	11:00	10:15	10:00	10:00			
Between 18 and 30	13:00	12:15	11:30	10:45	10:00	10:00	10:00	10:00			