

A380/A330/B787



FRMS Ruleset

Revision 4

Issue Date: 26 June 2023

Revision Record

Revision	Prepared By	Date	Summary of Changes
1	Doug Alley	14 Feb 2019	Initial Issue
2	Paul Kirby	15 September 2020	<p>FD 2 Additional definitions.</p> <p>FD3.1 – 3 pilot – added in new Class 1 & 2 definition to limitations.</p> <p>FD3.1 - 4 Pilot Planning – removed of seat in passenger department and clarity on flight time limit.</p> <p>FD3.2 Operational rest requirements removed from Planning rest limits add to FD10.2</p> <p>FD3.2.2 & FD10.2.2 reference to LAX-AKL temporary crew rest removed.</p> <p>FD3.2.2 FSAG initiative included in ruleset. 3 pilot back of clock operation, next following day duty if in Australia to be after 1000LT.</p> <p>FD3.3.3 – incorporating FSO regarding extending limitations to operational duty limits in Chapter 1B.</p> <p>FD3.3.4 Added the ability to avoid truncated sleep for deadheading paxing flight before 9:59 before a duty.</p> <p>FD5.2 and FD12.2 added location of standby duty.</p> <p>FD6 Cumulative limits. – clarification of standbys added. Hours references updated. Training factoring applicable to trainee and support and does not include deadheading.</p> <p>FD7 – Measurement of duty time. Added that at pilot discretion to reduce sign off time to 15minutes.</p> <p>FD8.3 change irregular and charter flights to operational limits after fatigue assessment and pilot discretion.</p> <p>FD9.4 MBTT requirements for DFW and PER-LHR/LHR-PER operations added to this section.</p> <p>FD10.1 added 2 pilot when flight time <11 hours. Added in day only operational limitation. Removed 9 hour rest.</p> <p>FD12.2 operational standby duty corrected from 16 hours to 12 hours.</p> <p>FD14.5 Deadheading after simulator duty added.</p>
3	Paul Kirby	5th November 2021	<p>FD3.1 – 4 Pilot Planning added a combination of 1xClass 1 rest and 1x Class 2 rest for flight and duty limits.</p> <p>FD3.2.2 - Crew Rest – added Class 2 Rest to Fleet Specifications.</p> <p>FD10.1 – 3/4 Pilot Operational – added combination of 1xClass1 and 1xClass 2 rest</p> <p>FD 10.2.2.2 – Crew Rest – added Class 2 Rest to Fleet Specifications</p>
4	Paul Kirby	26 June 2023	<p>FD3 – 4 Pilot (Planning). Added new 22 minimum pre-duty rest of 22 hours for duty period >16 hours if the prior duty was deadheading. Removed the word "prior" and applies to planned duty for 1 rostered sector if the duty was scheduled to exceed 16 hours.</p> <p>FD3.3 Extending limitations to the Operational Limits in Chapter 1 B – incorporated FSO 051/22.</p> <p>FD3.4 Sydney-Dallas Direct Flights (Planned) and FD3.5 Perth-London Direct Flights (planned) removed and incorporated into new FD3.4 section.</p> <p>FD3.4 New section Pattern containing a Planned Duty Period Greater than 18 hours based on Perth-London flying. Added b) ii) Captain OR First Officer and a duty period > 20 hours – 36 hours b iv) If Duty Period <18 hours, Chapter 1B Flight and Duty Limitations apply as per FD10.1. Added b v) If Duty Period>18 hours, at crew discretion, where the next operating sector has a flight time <4 hours – 24 hours. The minimum rest period before operating any Relevant Sector is to then be 36 hours. Changed cii) from 24 hours to 22 hours where the next operation is a domestic sector.</p> <p>FD5.5 Classroom training reference removed.</p> <p>FD9.4 amended reference to FD3.4</p> <p>FD10.1 Separated 3 Pilot (operational) and 4 Pilot (Operational) tables.</p>

4 cont.	Paul Kirby	01 March 2023	<p>FD10.1 - 3 Pilot (Operational) Table. Class1 Rest duty period decreased to 18 hours.</p> <p>FD10.1 – 4 Pilot (Operational) Table. Added new 21 hour operational limit for Relevant Sectors as per FD3.4. (A380 & B787)</p> <p>FD10.1 – 4 Pilot (Operational) Table. Added new references to rest requirements for Relevant Sectors as per FD3.4</p> <p>FD14.1.1 3& 4 Pilot duty period Operational Flowchart. Added reference to Planned duty period greater than 18 hours.</p>
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**Qantas Airways Limited Fatigue Risk Management System
Ruleset A380/A330/B787**

Issue: Revision 4

Date of Issue: 26 June 2023

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Document control

All amendments to this document must be referred to the Document Owner below for approval prior to insertion in the exposition document.

Document Owner	Chief Pilot (Executive Manager Flight Operations)
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Table of Contents

FD1	Introduction	7
FD2	Definitions	7
	FRMS Ruleset Revision 4.....	7
CHAPTER 1A: FLIGHT AND DUTY LIMITATIONS (PLANNING)		9
FD3	Flight and Duty Time Limitations (Planning)	9
FD3.1	Flight and duty time limitations tables	9
FD3.2	Application of Flight Duty Time Tables (Planning)	12
FD3.3	Extending limitations to the Operational Limits in Chapter 1B.....	14
FD3.4	Patterns containing a Planned Duty Period Greater than 18 hours (A380 & B787 Only).....	15
FD4	Duty Limitations Applicable to Deadheading (Planning)	16
FD5	Duty Limitations Applicable to Standby or Ground Duties (Planning)	16
FD5.1	Duration of standby duty	16
FD5.2	Location of standby duty	16
FD5.3	Reporting for flight duty during standby duty	16
FD5.4	Reporting for flight duty after termination of standby duty	16
FD6	Cumulative Limitations (Planning)	17
FD7	Measurement of Duty Time	19
FD7.1	Flight duty	19
FD7.2	Deadhead duty	19
FD7.3	Standby duty	19
FD7.4	Ground duty	19
FD8	Minimum Off Duty Periods En Route (Planning)	20
FD8.1	Factors to be taken into account when grouping flights into patterns	20
FD8.2	Irregular charter or special flights.....	20
FD8.3	Exceptional circumstances	20
FD9	Minimum Base Turnaround Time (Planning)	21
CHAPTER 1B: FLIGHT AND DUTY LIMITATIONS (OPERATIONAL)		22
FD10	Flight and Duty Time Limitations (Operational).....	22
FD10.1	Flight and duty time limitations tables.....	22
FD10.2	Application of Flight Duty Time Tables (Operational)	25
FD11	Cumulative Limitations (Operational).....	26
FD12	Duty Limitations Applicable to Standby or Ground Duties (Operational).....	27
FD12.1	Duration of standby duty	27
FD12.2	Location of standby duty	27
FD12.3	Reporting for flight duty	27
FD12.4	Reporting for flight duty during standby duty	27
FD12.5	Reporting for flight duty after termination of standby duty.....	27

FD13 Simulator Roster Limitations	28
FD13.1 Pre-duty and Post duty rest for Operating Crew	28
FD13.2 Deadheading after Simulator Duty	28
FD13.3 Rostering Limitations for TRE A and B Pilots	28
APPENDIX	28
FD14 Rest Requirement Flowcharts	28
Three or More Pilot Current TOD	29
Two Pilot Current TOD	30

FD1 Introduction

This document sets out the Flight Crew ruleset that is the basis the Qantas Airways Limited Fatigue Risk Management System (FRMS) for the A380, A330, and B787 fleets.

The ruleset may be varied as and when required to ensure the integrity of the ruleset and efficiency of the FRMS process.

The FRMS Rulesets are an integral part of the Qantas FRMS and are published in separate documents to the Qantas FRMS Manual to facilitate ease of access of the relevant flight and duty limitation information. A change to the FRMS Rulesets shall comply with the approved FRMS change process as detailed in the Qantas FRMS Manual Section 6.8 (FRMS – The Change Management Process).

FD2 Definitions

Term	Meaning
Acclimated	A pilot's acclimated time zone is one that he or she has remained within for a period of 72 hours or greater prior to a duty. A pilot will be considered acclimated if he or she remains within three (3) time zones of an acclimated time zone.
Class 1 (Crew Rest facility)	A bunk or berth fit for the purpose of obtaining sleep in a horizontal sleeping position and a separate seat located separate from both the flight deck and passenger compartment which allows the pilot to individually control temperature and light and provides isolation from noise and disturbance. A seat which converts to a horizontal bunk may be approved as a CLASS 1 rest.
Class 2 (Crew Rest Facility)	A seat in the cabin fit for the purpose of obtaining sleep in a horizontal or near horizontal sleeping position separated from passengers via a full screen that provides sound mitigation (deactivation of any PA speakers within the seat area) and allows the pilot to individually control light. The seat should be located reasonably free from disturbance from passengers and crew members (includes remoteness from galleys and lavatories).
deadheading	travelling on an aircraft on duty otherwise than as an operating member of a crew.
designated duty free day ('DDFD')	a designated calendar day commencing at midnight local time at the pilot's base or posting during which the pilot is not performing functions assigned by the Company or is not under the control or direction of the Company and is not required to be available for contact or to advise the Company of his or her whereabouts.

duty	Any task that a person who is employed as a pilot is required to carry out associated with the business
duty period	A period of time that starts when the Pilot is required by Qantas to report for duty and ends when the Pilot is free of all duties. A duty period includes any time spent by the Pilot in Deadheading (but does not include standby duty).
flight time	The time when a pilot is acting in capacity of a crew member on board an aircraft that includes the total time from the moment it first moves from its parking place, until the latter of the aircraft coming to a rest at the designated parking position or until all engines are stopped.
local night	a period of 12 consecutive hours, eight (8) hours of which fall between 2200 and 0800 local time.
minimum base turnaround time ('MBTT')	a period of time immediately following the completion of a pattern at the pilot's base or posting during which the pilot is not required to perform functions allocated by the Company and/or is not under the control or direction of the Company.
minimum daily credit ('MDC')	the minimum value of credited hours per calendar day for all duties (and, with respect to ground duties, includes but is not limited to, all personal training duties, emergency procedures ('EPs'), standbys and simulator support sessions).
minimum pattern gap ('MPG')	for bid line allocation purposes, the gap between patterns which is one (1) day for each two (2) days away in a pattern, with a minimum value of one (1) day.
pattern	the planned itinerary of a trip.
pilot	Allocated by the Company as a Captain, First Officer ('F/O'), or Second Officer ('S/O') for duty on a A380/A330/B787.
time zone	any of the regions of the globe which differ in local time from one another by one (1) hour (excluding daylight-savings). A time zone shifting by 30 minutes or less is considered half a time zone.

CHAPTER 1A: FLIGHT AND DUTY LIMITATIONS (PLANNING)

FD3 Flight and Duty Time Limitations (Planning)

FD3.1 Flight and duty time limitations tables

2 PILOT (PLANNING)			
<u>LOCAL SIGN ON TIME</u>	<u>DUTY PERIOD LIMIT</u>	<u>FLIGHT TIME LIMIT</u>	<u>SECTOR LIMIT</u>
0500-0759	11	8	1 if any sector flight time > 6 otherwise 4
0800-1359	11	8.5	1 if any sector flight time > 6 otherwise 4
	12	9.5	1 DAY PATTERN ONLY maximum 4 sectors
1400-1559	11	8.5	1 if any sector flight time > 6 otherwise 4
1600-0459	10	8	1 if any sector flight time > 6 2 if sign-on 2100-0300 LT 2 if any sector flight time > 2 otherwise 3
MINIMUM PRE-DUTY REST	<u>DUTY PERIOD</u>	<u>MINIMUM REST</u>	<u>REQUIREMENTS</u>
	≤ 11	11	flight time ≤ 8
		22	
	> 11	11	operate ≤ 11 duty then pax to base or posting
		22	
MINIMUM POST-DUTY REST	<u>DUTY PERIOD</u>	<u>MINIMUM REST</u>	<u>REQUIREMENTS</u>
	≤ 11	11	flight time ≤ 8
		22	
	> 11	22	

3 PILOT (PLANNING)			
<u>CREW REST FACILITY</u>	<u>DUTY PERIOD LIMIT</u>	<u>FLIGHT TIME LIMIT</u>	<u>SECTOR LIMIT</u>
CLASS 2 REST	12	8.5	3 if duty period > 11 otherwise maximum 4
CLASS 1 REST	14	12.5	3 if duty period > 11 otherwise maximum 4
MINIMUM PRE-DUTY REST	<u>DUTY PERIOD</u>	<u>MINIMUM REST</u>	<u>REQUIREMENTS</u>
	≤ 12	12	
	> 12	12	operate ≤ 12 duty then pax to base or posting
		22	
MINIMUM POST-DUTY REST If the next duty period is solely deadheading then the minimum pre-duty deadheading limits apply	<u>DUTY PERIOD</u>	<u>MINIMUM REST</u>	<u>REQUIREMENTS</u>
	≤ 12	12	flight time ≤ 9
		18	
	> 12	22	acclimated crew
		32	

4 PILOT (PLANNING)			
<u>CREW REST FACILITY</u>	<u>DUTY PERIOD LIMIT</u>	<u>FLIGHT TIME LIMIT</u>	<u>SECTOR LIMIT</u>
2 x CLASS 2 REST	16	A pilot cannot spend more than 8 continuous hours on duty in the flight deck and no more than 14 hours total duty in the flight deck.	≤ 2 rostered sectors if duty period was scheduled to exceed 14 hrs 1 rostered sector if duty period was scheduled to exceed 16 hours
1 x CLASS 1 & 1 x CLASS 2 REST *1	17.5		
2 x CLASS 1 REST	20		
MINIMUM PRE-DUTY REST	<u>DUTY PERIOD</u>	<u>MINIMUM REST</u>	<u>REQUIREMENTS</u>
	≤ 14	12	
	> 14	12	operate ≤ 14 duty then pax to base or posting
	≤ 16	22	
	> 16	32	within West Coast North America
		48	
		22	Only if prior duty was deadheading.
MINIMUM POST-DUTY REST	<u>DUTY PERIOD</u>	<u>MINIMUM REST</u>	<u>REQUIREMENTS</u>
	≤ 12	12	flight time ≤ 9.5
		18	
	> 12	22	acclimated crew OR between two 4 Pilot duties OR next duty is to home base or posting augmented crew and duty period < 5 hours
		32	
	> 14	22	acclimated crew OR next duty is to home base or posting augmented crew and duty period < 5 hours
		32	
	> 16	22	next duty is to home base or posting augmented crew and duty period < 5 hours
		32	within West Coast North America
		48	

Note *1: Consideration to be given to the management of mixed crew rest facilities with priority of the higher class of rest facility for the landing crew.

DEADHEADING (PLANNING)			
<u>DUTY</u>	<u>DUTY PERIOD LIMIT</u>	<u>SECTOR LIMIT</u>	<u>REQUIREMENTS</u>
Solely deadhead	26	2	PAX then operate' duty OR the operate portion of 'Operate then PAX' duty - same duty period limits and flight time limits apply as operate only
Operate then deadhead (other than to home base or posting)	14.5	additional paxing sector above operate only limit	
Operate then deadhead (to home base or posting)	18	additional paxing sector above operate only limit	
MINIMUM PRE-DUTY REST (Solely deadhead only. Any duty period which involves operating the 2, 3 or 4 PILOT limits apply)	<u>DUTY PERIOD</u>	<u>MINIMUM REST</u>	<u>REQUIREMENTS</u>
	≤ 12	11	
	> 12	12	Pax to base or posting
		18	
MINIMUM POST-DUTY REST (Solely deadhead only. Any duty period which involves operating the operate only limits apply)	<u>DUTY PERIOD</u>	<u>MINIMUM REST</u>	<u>REQUIREMENTS</u>
	≤ 12	11	
	> 12	18	

FD3.2 Application of Flight Duty Time Tables (Planning)

FD3.2.1 Rest requirements

(a) The rest period following a duty period shall be the sum of the rostered flight time plus any flight time rostered between 2000 and 0800 (LT) calculated from the initial point of departure with a minimum value as outlined in the flight time limitations tables.

(b) All rest periods must include a minimum six (6) hours within the hours 2100 and 0900 (LT).

(c) The minimum pre-duty rest at a pilot's base or posting will be:

(i) for non-acclimated pilots the rest applicable under the tables with a minimum of one (1) local night;

(ii) for acclimated pilots a minimum of:

32 hours where the next duty period is greater than 16 hours (in this case a standby duty without callout on the day prior will not be considered to have infringed this rest period); or

where the next duty period is less than or equal to 16 hours, the rest applicable under the tables (with a minimum of 12 hours) or one (1) local night, whichever is less.

At the pilot's discretion, the above pre-duty rest may be reduced to the minimum applicable under the Operational Limits in [Chapter 1B](#).

(d) The minimum rest period at a location greater than six (6) time zones from an acclimated time zone is:

- (i) 48 hours; or
- (ii) 34 hours for:

one (1) pattern per day to London, provided the in-bound and out-bound sectors are operated by four (4) pilot crew the slip in Asia southbound is two (2) days and the service operated to base or posting is a direct service;

50 percent of Frankfurt slips, provided the in-bound and out-bound sectors are operated by four (4) pilot crew the slip in Asia southbound is two (2) days and the service operated to base or posting is a direct service.

(e) For SIN/BKK – Europe 'double shuttles' a relief pilot may have his or her rest in Asia 'mid pattern' reduced to 22 hours provided that the rest is between 4 (four) pilot tours of duty which are less than 16 hours.

(f) The minimum rest period following a duty period where a disruption occurs will be in accordance with FD10.2.1.

FD3.2.2 Crew rest

The crew rest fitted on the following aircraft meets CLASS 1 requirements:

- (i) A380-800;
- (ii) B787-9;
- (iii) A330-300 (International configuration) dedicated crew rest facility; and
- (iv) A330-200L (International configuration) dedicated crew rest facility located mid cabin.

The crew rest on the following aircraft meets CLASS 2 requirements:

- (i) A330-200L (International Configuration) dedicated crew rest area located at seat 5A.

Statutory requirements for adequate rest facilities apply

Aviation Regulatory Authority requirements with respect to adequate rest facilities on board the aircraft will apply in all relevant situations.

FD3.2.3 Duty limitations

(a) Duty period begins when a pilot commences any duties associated with his or her employment with a minimum of:

- (i) 60 minutes operating; and
- (ii) 60 minutes deadheading (45 minutes Australian domestic),

prior to departure and will finish 30 minutes after actual arrival time of the last flight of the duty period.

(b) Two (2) pilot operations:

- (i) maximum of two (2) consecutive duties with a sign-on prior to 0600 (LT);
- (ii) maximum of three (3) consecutive duties with a sign-on prior to 0700 (LT); and
- (iii) if duty is a 'back of clock operation' including two (2) hours between 0100-0459 (LT) (departure airport time), the following duty, if in Australia, is limited to sign-on no earlier than 1000 (LT) the following day.

Two (2) pilot duty period limits and flight time limits apply to augmented operations where augmented operations are more limiting provided the two (2) pilot requirements are met.

- (c) Three (3) pilot operations:
 - (i) If duty is a 'back of clock operation' including two (2) hours between 0100-0459 (LT) (departure airport time), the following duty, if in Australia, is limited to sign on no earlier than 1000 (LT) the following day.
- (d) Maximum planned pattern length:
 - (i) Captains and F/Os – 12 days;
 - (ii) S/Os – 14 days;
 - (iii) Domestic patterns – five (5) days;
 - (iv) patterns that transit the pilot's base or posting (other than the first and last day) – six (6) days.

For pattern repair purposes, a pilot will be returned to his or her base, posting or localised line as close as reasonably possible to the originally planned pattern length.

- (e) A pilot's acclimated time zone is one that he or she has remained within for a period of 72 hours or greater prior to a duty. A pilot will be considered acclimated if he or she remains within three (3) time zones of an acclimated time zone.

FD3.3 Extending limitations to the Operational Limits in Chapter 1B

FD3.3.1 Duty Period or Rest Period Already Commenced (Pattern Commenced)

- (a) A duty period already commenced in accordance with the planning limitations in FD3.1 may be **extended** at the discretion of the pilot to the Operational Limits in Chapter 1B. Changes to crew composition are permitted.
- (b) For a duty already commenced, the rest period following that duty may be reduced at the discretion of the pilot to the Operational Limits in Chapter 1B.
- (c) A rest period commenced in accordance with the limitations in FD3.1 may be reduced at the discretion of the pilot to the Operational Limits in Chapter 1B.
- (d) FD 3.3.1 (a), (b) and (c) are applicable when the pilot considers themselves physically and mentally fit for the operation.

FD3.3.2 Exceptional Circumstances

Under exceptional circumstances (such as civil riot, cyclone, mercy flight) the scheduled (planned) flight and duty limitations contained in [FD3](#) may be extended to the Operational Limits in Chapter 1B.

FD3.3.3 Planned Recovery (Patterns Not Commenced)

This rule applies to operations from a pilot's home base. When away from home base the pattern has commenced.

During disruption management (eg. Including but not limited to upline sickness, aircraft recovery from diversion or maintenance), Flight and Duty Time Limitations (Planning) may be extended to the Operational Limits in Chapter 1B under the following conditions:

- (a) A fatigue assessment has been completed
- (b) Discretion of the flight crew
- (c) Notification to the flight crew that the pattern is planned to Operational Limits
- (d) Return to Flight & Duty Time Limitations (Planning) as soon as practicable
- (e) Reductions in planned crew complement will not occur for departures from a pilot's home base.

FD3.3.4 Deadheading Before a Duty

If the planned deadheading flight departure time is before 9:59 local time, the rest requirements when deadheading before a duty may be reduced to the Operational Limits in Chapter 1B on the planned deadheading day.

FD3.4 Patterns containing a Planned Duty Period Greater than 18 hours (A380 & B787 Only)

The following provisions will apply to the following sectors (**Relevant Sectors**) when operating as a flight crew member:

- a) Any planned duty period greater than 18 hours;
- b) Sydney to Dallas and vice versa;
- c) Melbourne to Dallas and vice versa;
- d) Perth to London and vice versa; and
- e) Auckland to New York and vice versa.

FD3.4.1 The crew complement on the flight will consist of a minimum of four (4) pilots.

FD3.4.2 Following any pattern that includes a planned duty greater than 18 hours, the minimum base turnaround times ('MBTT') in FD9 will be increased by 1 local night.

FD3.4.3 A pilot who operates a pattern that includes a planned duty greater than 18 hours will be provided with home transport.

FD3.4.4 In the event of a downline disruption (Including but not limited to upline sickness, aircraft recovery from diversion or maintenance), the flight and duty limits (including rest periods) will be:

- (a) Prior to operating a **Relevant Sector** – 22 hours
- (b) after operating a **Relevant Sector**:
 - (i) Captain OR First Officer – 27 hours;
 - (ii) Captain OR First Officer and a duty period > 20 hours – 36 hours
 - (iii) Captain AND First Officer - 36 hours.
 - (iv) If Duty Period <18 hours, Chapter 1B Flight and Duty Limitations apply as per FD10.1
 - (v) If Duty Period >18 hours, at crew discretion, where the next operating sector has a flight time <4 hours – 24 hours. The minimum rest period before operating any **Relevant Sector** is to then be 36 hours.
- (c) Following a **Relevant Sector** inbound to Australia or New Zealand:
 - (i) 36 hours where the next operation is returning to same time zone destination;
 - (ii) 22 hours where the next operation is a domestic or trans-Tasman sector.

FD4 Duty Limitations Applicable to Deadheading (Planning)

FD4.1 A pilot will not be scheduled to deadhead and operate, during a duty period, in excess of the duty limitations applicable to the crew in which the pilot operates.

FD4.2 A pilot may be scheduled to operate and then deadhead for a total duty period not exceeding 14.5 hours. However, a pilot inbound to the pilot's base or posting to complete a pattern may be scheduled to operate and then deadhead for a total duty period not exceeding 18 hours in which case the following conditions apply:

FD4.2.1 the pilot may elect to slip at a port prior to the base or posting rather than deadhead to the base or posting if, to do otherwise, he or she would exceed the applicable duty time limitations in [FD3.1](#);

FD4.2.2 if the pilot elects to slip at a port prior to the base or posting, the pilot will receive:

- (a) credited hours as if he or she had deadheaded to the base or posting as scheduled;
- (b) duty free time entitlements determined as if the pilot had deadheaded as scheduled.

The conditions of FD4.2 only apply where the scheduled duty time in excess of the duty time limitations specified in [FD3.1](#) is time during which the pilot does not operate.

FD4.3 A pilot who is scheduled to solely deadhead in a duty period will not be scheduled for duty beyond 24 hours unless:

- a) the duty is limited to two (2) sectors; and
- b) the pilot is provided with first class travel.

In this case the pilot may be scheduled for duty to a maximum of 26 hours.

FD5 Duty Limitations Applicable to Standby or Ground Duties (Planning)

FD5.1 Duration of standby duty

A pilot will not be scheduled for a standby duty in excess of 12 consecutive hours. A pilot scheduled for, or on a standby duty of, less than 12 consecutive hours may be required to extend the standby duty to 12 consecutive hours.

FD5.2 Location of standby duty

A period of standby is to have access to suitable sleeping accommodation and is free from all duties associated with their employment."

FD5.3 Reporting for flight duty during standby duty

A pilot on standby duty may be required to report for flight duty during the time the pilot is on standby. In this event, for flight time limitation purposes the flight duty period begins at the actual or required reporting time, whichever is the later.

FD5.4 Reporting for flight duty after termination of standby duty

A pilot on standby duty may be required to report for flight duty after the termination of the standby duty without an intervening off duty period prescribed by the Aviation Regulatory Authority. In this event, for flight time limitation purposes the flight duty period will be deemed to begin at the end of the standby duty.

FD6 Cumulative Limitations (Planning)

FD6.1 Following 50 hours of duty of any nature associated (including Standbys) with the pilot's employment, the pilot will have a rest period of not less than 24 consecutive hours before commencing a duty period.

FD6.2 The total flight time in any consecutive 30 days will not exceed 100 hours.

FD6.3 At the time a pilot's roster is promulgated each bid period, no pilot will be rostered for more than 900 hours flight time in any consecutive 365 day period.

FD6.4 Limit on cumulative duty time

FD6.4.1 For clarity, the following limits don't include standby duty. Cumulative duty times include, flying patterns, ground duties and administration.

FD6.4.2 The cumulative duty period in any consecutive seven (7) days will not exceed 60 hours.

FD6.4.3 The cumulative duty period in any consecutive 14 days will not exceed 100 hours.

FD6.5 In determining the cumulative duty period limits, duty time involving simulator training and training flights (excluding line training, line checks and deadheading) is to be factored by 1.5 for the trainee and support pilot.

FD6.6 Mixed Two, Three or More Person Crew Operations (Planning)

FD6.6.1 Mixed two pilot and three or more pilot crewing may be operated to the following standards:

FD6.6.2 During any one duty period, if any portion of the flight time involves operation with less than three pilots, then the provisions of relevant rules for two pilot operations shall apply to that duty period.

FD6.6.3 During any seven consecutive days:

- (a) if a pilot operates entirely as a member of a two pilot crew, the pilot shall not fly and an operator shall not roster the pilot to fly in excess of 30 hours.
- (b) if a pilot operates entirely as a member of a three or more pilot crew, no total limit applies to the pilot's flying within the seven day period.
- (c) if a pilot operates partly as a member of a two-pilot crew and partly as a member of a three or more pilot crew then the pilot shall not fly and an operator shall not roster the pilot to fly in excess of:
 - i. in the case where the pilot's next flight is to be as a member of a two-pilot crew – 30 hours; or
 - ii. in the case where the pilot's next flight is to be as a member of a three or more pilot crew – 40 hours.

FD6.6.4 In all other respects, including crew rest periods before or after flight or duty, the provisions of the relevant ruleset for two pilot operations shall apply to two pilot operations and the provisions of the relevant ruleset for three or more pilot operations shall apply to three or more pilot operations.

FD6.6.5 The limits at FD6.6.3(c) were reached in the following manner:

- (a) If the pilot's next flight is to be as part of a two-pilot crew, then at the end of that flight the pilot should not have exceeded the two-pilot limit.
- (b) If the pilot's next flight is to be as part of a three or more pilot crew, the pilot may in the course of that flight exceed the two-pilot limit but the pilot should not have the benefit of the full three or more pilot limit. An additional ten hours over and above the two-pilot limit was selected as a practical figure, being an increase small enough to limit the fatigue experienced over seven days, but large enough to permit a usable sector to be flown in the additional time.

FD7 Measurement of Duty Time

FD7.1 Flight duty

FD7.1.1 A pilot's scheduled flight duty period will begin at the required reporting time and will end 30 minutes after the scheduled arrival time on blocks of the last flight during the flight duty period. At discretion of the flight crew, the end of the duty period may be reduced to 15mins after actual arrival time on blocks.

FD7.1.2 A pilot's actual flight duty period will begin at the actual or required reporting time, whichever is later, and will end 30 minutes after the actual arrival time on blocks of the last flight during the flight duty period. At discretion of the flight crew, the end of the duty period may be reduced to 15mins after actual arrival time on blocks.

FD7.2 Deadhead duty

FD7.2.1 A pilot's scheduled deadhead duty period begins at the required reporting time and ends 30 minutes after the scheduled arrival time on blocks of the last flight during the flight duty period. At discretion of the flight crew, the end of the duty period may be reduced to 15mins after actual arrival time on blocks.

FD7.2.2 A pilot's actual deadhead duty period begins at the actual or required reporting time, whichever is later, and ends 30 minutes after the actual arrival time on blocks of the last flight during the flight duty period. At discretion of the flight crew, the end of the duty period may be reduced to 15mins after actual arrival time on blocks.

FD7.3 Standby duty

FD7.3.1 A pilot's scheduled standby duty period will begin at the required time of availability for contact and will end at the scheduled time of release from the period of availability for contact.

FD7.3.2 A pilot's actual standby duty period will begin at the required time of availability for contact and will end at the time the pilot is released from availability of duty or at the time the pilot was scheduled to complete the period of availability for contact.

FD7.3.3 If a pilot on standby is called out but does not sign on because the callout is cancelled, the Company may return a pilot to the originally planned standby.

FD7.3.4 If a pilot on standby is called out but does not sign on because the call out is cancelled, any calculations for any subsequent duty period must commence from the cancelled proposed sign on time if the callout is notified before 0730.

FD7.4 Ground duty

FD7.4.1 A pilot's scheduled ground duty period begins at the required reporting time and ends at the scheduled time of release from the duty.

FD7.4.2 A pilot's actual ground duty period begins at the actual or required reporting time, whichever is later, and ends at the actual time of release from the duty.

FD8 Minimum Off Duty Periods En Route (Planning)

FD8.1 Factors to be taken into account when grouping flights into patterns

In the grouping of flights into patterns, a pilot will, where applicable, be scheduled for intervening off duty periods while en route. The duration of these periods will take into account factors including:

- (a) the duration and time of day of the duties preceding the off duty period;
- (b) the duration and time of day of the duty following the off duty period;
- (c) the local time of day of the proposed off duty period;
- (d) the degree of longitudinal time shift to which the pilot has been subjected during the preceding duties;
- (e) the suitability and distance of the proposed accommodation from the airport;
- (f) the availability of earlier or later services which could be utilised to shorten or lengthen the off duty period; and
- (g) any other relevant factors.

FD8.2 Irregular charter or special flights

Irregular charter or special flights may be planned to operational limits in Chapter 1B subject to the following conditions:

- a) A fatigue assessment has been completed
- b) Discretion of the flight crew

FD8.3 Exceptional circumstances

Under exceptional circumstances (such as civil riot, cyclone, mercy flight) the minimum off duty periods set out in the Planning Limits in [Chapter 1A](#) may be reduced at the pilot's discretion to the minimum period as set out in the Operational Limits in [Chapter 1B](#).

FD9 Minimum Base Turnaround Time (Planning)

FD9.1 A pilot is entitled to a MBTT (which may include DDFDs) on arrival at the pilot's base or posting on completion of each pattern of flying in accordance with the provisions of this FD9 except where:

FD9.1.1 the pilot's base or posting is considered to be a stopover within a pattern; or

FD9.1.2 the pilot is awarded a pattern of open time flying which conflicts with the MBTT associated with the previous pattern in the pilot's pattern line and/or where the MBTT associated with the awarded open time flying conflicts with the next pattern in the pilot's pattern line in the then current bid period or the next.

FD9.2 A pilot will not be required to carry out any duty connected with his or her employment without the pilot's consent during the MBTT except as provided in FD9.

FD9.3 Except as provided in FD9, the MBTT at a pilot's base or posting upon completion of a pattern will be as follows:

- (a) 12 hours, for a pattern of one day away;
- (b) one (1) local night, for a pattern of two to four days away;
- (c) two (2) local nights, where the accrued credited flight hours of the pattern exceed 20;
- (d) two (2) local nights, for a pattern of five (5) to eight (8) days away;
- (e) three (3) local nights, where the accrued credited flight hours of the pattern exceed 40;
- (f) three (3) local nights, for a pattern of nine (9) to (12) days away;
- (g) four (4) local nights, where the accrued credited flight hours of the pattern exceed 60 or where the days away for the pattern exceed 12;
- (h) where a pilot exceeds 100 flight hours in 30 days during an awarded or assigned pattern the pilot is entitled to additional MBTT for the pattern causing the excess. Where the pilot accrues further excess hours during the next awarded or assigned pattern the pilot is entitled to additional MBTT for those further excess hours. The additional MBTT entitlement for excess hours referred to in this FD9.3 (h) will be as follows:
 - (i) one (1) local night for up to, but not exceeding, five (5) hours excess; and
 - (ii) two (2) local nights for five (5) hours excess or more.

For the purpose of this FD9.3, the number of days away in a pattern includes the day of departure and the day of return.

FD9.4 For additional MBTT for a pattern containing a planned duty greater than 18 hours refer to FD3.4

FD9.5 The Company may increase or decrease the MBTT for specific patterns scheduled for each bid period but the maximum provisions will be four (4) local nights except as provided in FD9.3 (h).

CHAPTER 1B: FLIGHT AND DUTY LIMITATIONS (OPERATIONAL)

FD10 Flight and Duty Time Limitations (Operational)

FD10.1 Flight and duty time limitations tables

2 PILOT (OPERATIONAL)			
<u>LOCAL SIGN ON TIME</u>	<u>DUTY PERIOD LIMIT</u>	<u>FLIGHT TIME LIMIT</u>	<u>REQUIREMENTS</u>
ALL	11 planned 12 Pilot discretion	9.5	If more than 7 hours of flight time conducted in darkness
	11 planned 12 pilot discretion	10	If greater than 1 sector is rostered
	11 planned 12 pilot discretion	10.5	
MINIMUM PRE-DUTY REST* ¹	<u>DUTY PERIOD</u>	<u>MINIMUM REST</u>	<u>REQUIREMENTS</u>
	≤11	10	
	>11	12	
	Within a 7 days period	1 continuous period embracing 2200 and 0600 on 2 consecutive nights	
MINIMUM POST-DUTY REST* ¹	<u>DUTY PERIOD / FLIGHT TIME</u>	<u>MINIMUM REST</u>	<u>REQUIREMENTS</u>
	≤11	10	
	Duty Period > 11 or Flight Time > 8 (due to extension beyond planned duty period)	10 + 1 additional hour for each 15 minutes or part thereof when the TOD exceeded 11 hours	If next duty period includes Operating sectors. However, if next duty is solely deadheading, only 12 hours rest is required.
	Duty Period > 12 or Flight Time > 9 (due to extension beyond planned duty period)	24	

*1: If a pilot has completed 2 consecutive duty period, the aggregate of which exceeds 8 hours flight time or 11 hours duty period, and the intervening rest period is less than:

- 12 consecutive hours embracing the hours between 2200 and 0600 local time; or
- 24 consecutive hours, if not embracing the hours between 2200 and 0600 local time;

The pilot shall have a rest period on the ground of at least 12 consecutive hours embracing the hours between 2200 and 0600 local time or 24 consecutive hours, prior to commencing a further duty period. The 12 consecutive hours embracing the hours between 2200 and 0600 local time may commence from 2300 provided the succeeding duty period does not exceed 6 hours and the pilot was scheduled to be free of duty no later than 2200 local time and the aircraft was delayed beyond that time.

3 PILOT (OPERATIONAL)			
CREW REST FACILITY	DUTY PERIOD LIMIT	FLIGHT TIME LIMIT	REQUIREMENTS
SEAT IN PASSENGER COMPARTMENT	14	8 consecutive hrs of active duty	
CLASS 2 REST	16	A pilot cannot spend more than 8 continuous hours on duty in the flight deck and no more than 14 hours total duty in the flight deck.	≤ 2 sectors if duty period was scheduled to exceed 14
CLASS 1 REST	18		
MINIMUM PRE-DUTY REST	DUTY PERIOD	MINIMUM REST	REQUIREMENTS
		10	If 12 hours rest was rostered between 2 consecutive duties and the first duty does not exceed 11 hours and the total of both duties do not exceed 24 hours
		12	
MINIMUM POST-DUTY REST If the next duty period is solely deadheading then the minimum pre-duty deadheading limits apply	DUTY PERIOD	MINIMUM REST	REQUIREMENTS
	≤ 16	12	
	> 16	24	

4 PILOT (OPERATIONAL)			
CREW REST FACILITY	DUTY PERIOD LIMIT	FLIGHT TIME LIMIT	REQUIREMENTS
SEATS IN PASSENGER COMPARTMENT	14	8 consecutive hrs of active duty	
2 x CLASS 2 REST	16	A pilot cannot spend more than 8 continuous hours on duty in the flight deck and no more than 14 hours total duty in the flight deck.	≤ 2 sectors if duty period was scheduled to exceed 14 hours
1 x CLASS 1 & 1 x CLASS 2 REST *1	20		
2x CLASS 1 REST			
2x CLASS 1 REST >18 Hours as per FD3.4	21 (A380 & B787 only)		
MINIMUM PRE-DUTY REST	DUTY PERIOD	MINIMUM REST	REQUIREMENTS
		10	If 12 hours rest was rostered between 2 consecutive duties and the first duty does not exceed 11 hours and the total of both duties do not exceed 24 hours
		12	
	>18 Hours as per FD3.4	Refer below for disruption limits	
MINIMUM POST-DUTY REST If the next duty period is solely deadheading then the minimum pre-duty deadheading limits apply	DUTY PERIOD	MINIMUM REST	REQUIREMENTS
	≤ 16	12	
	> 16	24	
	>18 Hours as per FD3.4	Refer below for disruptions limits	

Patterns containing a Planned Duty Period Greater than 18 hours (A380 & B787 Only)

The following provisions will apply to the following sectors (**Relevant Sectors**) when operating as a flight crew member:

- Any planned duty period greater than 18 hours;
- Sydney to Dallas and vice versa;
- Melbourne to Dallas and vice versa;
- Perth to London and vice versa; and
- Auckland to New York and vice versa.

In the event of a downline disruption (Including but not limited to upline sickness, aircraft recovery from diversion or maintenance), the flight and duty limits (including rest periods) will be:

- Prior to operating a **Relevant Sector** – 22 hours
- After operating a **Relevant Sector**:
 - Captain OR First Officer – 27 hours;
 - Captain OR First Officer and a duty period > 20 hours – 36 hours
 - Captain AND First Officer - 36 hours.
 - If Duty Period <18 hours, Chapter 1B Flight and Duty Limitations apply as per FD10.1
 - If Duty Period >18 hours, at crew discretion, where the next operating sector has a flight time <4 hours – 24 hours. The minimum rest period before operating any **Relevant Sector** is to then be 36 hours.
- After operating a **Relevant Sector** inbound to Australia or New Zealand:
 - 36 hours where the next operation is returning to same time zone destination;
 - 22 hours where the next operation is a domestic or trans-Tasman sector.

FD10.2 Application of Flight Duty Time Tables (Operational)**FD10.2.1 Rest Requirements**

(a) The minimum rest period following a duty period where a disruption occurs after the commencement of a pattern shall be:

- (i) the rest applicable under the Operational Limits in Chapter 1B or at the pilot's discretion, the rest specified in paragraphs (ii), (iii) or (iv) provided that the rest period does not exceed the hourly amount of the applicable rest limitations in the table;
- (ii) 10 hours;
the hours of the previous duty period (to a maximum of 12 hours) plus 1.5 times the time that the previous duty period exceeded 12 hours plus the amount that the time zone difference from the first place of departure exceeds three (3) hours; or
- (iii) 24 hours pre and post duty where a duty period is planned or was planned for greater than 16 hours.

Note: Nothing in this note (a) limits a pilot's authority under the Operational Limits in Chapter 1B.

FD10.2.2 Crew rest

The crew rest fitted on the following aircraft is deemed to meet CLASS 1 requirements:

- (i) A380-800;
- (ii) B787-9;
- (iii) A330-300 (International configuration) dedicated crew rest facility; and
- (iv) A330-200L (International configuration) dedicated crew rest facility located mid cabin.

The crew rest fitted on the following aircraft is deemed to meet CLASS 2 requirements:

- (i) A330-200L (International Configuration) dedicated crew rest area located at seat 5A.

Statutory requirements for adequate rest facilities apply

Aviation Regulatory Authority requirements with respect to adequate rest facilities on board the aircraft will apply in all relevant situations

FD11 Cumulative Limitations (Operational)

FD11.1 The total duty period in each fortnight standing alone for 2 pilot operation will not exceed 90 hours. This includes duties include reserve time at the airport, duty periods, dead head transportation, administrative duties and all forms of ground training. The first fortnightly period is determined by the Company.

FD11.2 Following 50 hours of duty of any nature associated with the pilot's employment operating as a 3 or 4 pilot crew, the pilot will have a rest period of not less than 24 consecutive hours before commencing a duty period.

FD11.3 The total flight time in any consecutive 7 days will not exceed 30 hours for 2 pilot operations only.

FD11.4 The total flight time in any consecutive 30 days will not exceed 100 hours.

FD11.5 The total flight time accrued during any consecutive 365 day period will not exceed 900 hours.

FD11.6 Mixed Two, Three or More Person Crew Operations (Operational)

FD11.6.1 Mixed two pilot and three or more pilot crewing may be operated to the following standards:

FD11.6.2 During any one duty period, if any portion of the flight time involves operation with less than three pilots, then the provisions of relevant rules for two pilot operations shall apply to that duty period.

FD11.6.3 During any seven consecutive days:

- (a) if a pilot operates entirely as a member of a two pilot crew, the pilot shall not fly and an operator shall not roster the pilot to fly in excess of 30 hours.
- (b) if a pilot operates entirely as a member of a three or more pilot crew, no total limit applies to the pilot's flying within the seven day period.
- (c) if a pilot operates partly as a member of a two-pilot crew and partly as a member of a three or more pilot crew then the pilot shall not fly and an operator shall not roster the pilot to fly in excess of:
 - (i) in the case where the pilot's next flight is to be as a member of a two-pilot crew – 30 hours.
 - (ii) in the case where the pilot's next flight is to be as a member of a three or more pilot crew – 40 hours.

FD11.6.4 In all other respects, including crew rest periods before or after flight or duty, the provisions of the relevant ruleset for two pilot operations shall apply to two pilot operations and the provisions of the relevant ruleset for three or more pilot operations shall apply to three or more pilot operations.

FD11.6.5 The limits at FD11.6.3(c) were reached in the following manner:

- (d) If the pilot's next flight is to be as part of a two-pilot crew, then at the end of that flight the pilot should not have exceeded the two-pilot limit.
- (e) If the pilot's next flight is to be as part of a three or more pilot crew, the pilot may in the course of that flight exceed the two-pilot limit but the pilot should not have the benefit of the full three or more pilot limit. An additional ten hours over and above the two-pilot limit was selected as a practical figure, being an increase small enough to limit the fatigue experienced over seven days, but large enough to permit a usable sector to be flown in the additional time.

FD12 Duty Limitations Applicable to Standby or Ground Duties (Operational)

FD12.1 Duration of standby duty

A pilot will not be scheduled for a standby duty in excess of 12 consecutive hours.

FD12.2 Location of standby duty

A period of standby is to have access to suitable sleeping accommodation and is free from all duties associated with their employment.

FD12.3 Reporting for flight duty

The duty period following call out from standby must be decreased by the number of hours the reserve time exceeds 12 hours.

FD12.4 Reporting for flight duty during standby duty

A pilot on standby duty may be required to report for flight duty during the time the pilot is on standby. In this event, for flight time limitation purposes the flight duty period begins at the actual or required reporting time, whichever is the later.

FD12.5 Reporting for flight duty after termination of standby duty

A pilot on standby duty may be required to report for flight duty after the termination of the standby duty without an intervening off duty period prescribed by the Aviation Regulatory Authority. In this event, for flight time limitation purposes the flight duty period will be deemed to begin at the end of the standby duty.

CHAPTER 2 - FLIGHT TRAINING SCHEDULING (ROSTERING) LIMITATIONS

FD13 Simulator Roster Limitations

FD13.1 Pre-duty and Post duty rest for Operating Crew

Refer to 2 pilot (Planning) [Chapter 1a Flight and Duty Limitations \(Planning\)](#) for rulesets applied to simulator planning.

FD13.2 Deadheading after Simulator Duty

The Duty Period limit is 14.5 hours when completing a simulator duty then deadheading to home base within the same duty.

FD13.3 Rostering Limitations for TRE A and B Pilots

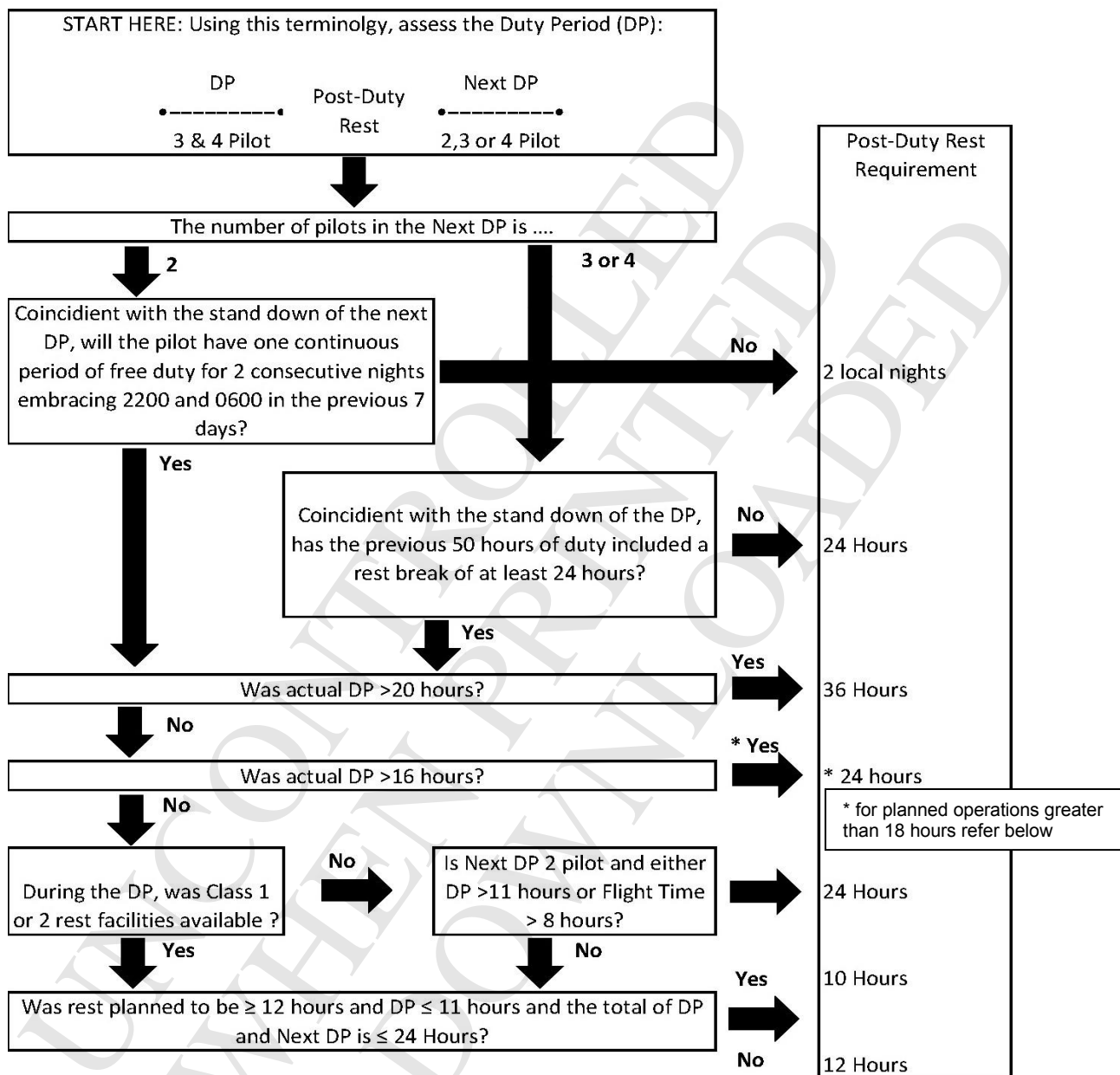
- a) TRE A or B cannot be required to carry out two (2) rostered duties commencing on the same calendar day except that a Training Review Meeting may be scheduled to take place before or after a simulator session. If a meeting is scheduled, a meal break of up to one (1) hour may be taken.
- b) Two consecutive 'late night' simulator sessions (i.e. sessions with simulator start times prior to 0700 or finish times after 2300) cannot be allocated to a TRE A or B.
- c) Following a duty, a TRE A or B is entitled to a MBTT of at least 12 hours unless otherwise agreed between the Company and the TRE A or B. For simulator duties, this is based on the planned briefing and de-briefing times.

APPENDIX

FD14 Rest Requirement Flowcharts

FD14.1 The following flow charts graphically represent the minimum rest requirements and may be used as a guide. Aircrew Operations can provide references supporting flow chart outcomes on request.

FD14.1.1 Three or More Pilot Current TOD 3 & 4 Pilot Duty Period Operational



*Patterns containing a Planned Duty Period Greater than 18 hours (A380 & B787 Only)

The following provisions will apply to the following sectors (**Relevant Sectors**) when operating as a crew member:

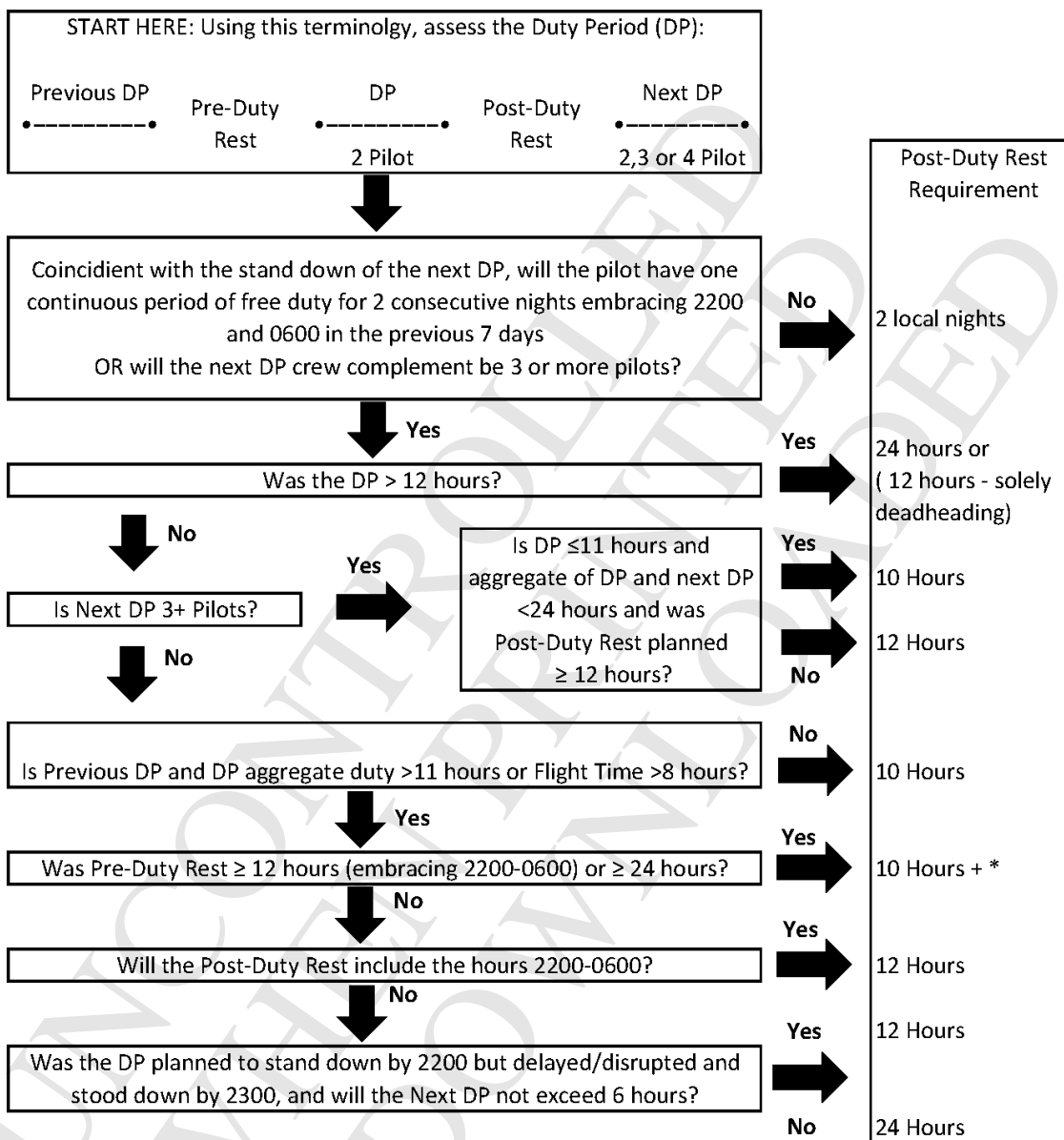
- | | |
|---|---|
| a) Any planned duty period greater than 18 hours; | d) Perth to London and vice versa; and |
| b) Sydney to Dallas and vice versa; | e) Auckland to New York and vice versa. |
| c) Melbourne to Dallas and vice versa; | |

In the event of a downline disruption (Including but not limited to upline sickness, aircraft recovery from diversion or maintenance), the flight and duty limits (including rest periods) will be:

- Prior to operating **Relevant Sectors** – 22 hours
- after operating **Relevant Sectors**:
 - Captain OR First Officer – 27 hours.
 - Captain OR First Officer and a duty period > 20 hours – 36 hours
 - Captain AND First Officer - 36 hours.
 - If Duty Period < 18 hours, Chapter 1B Flight and Duty Limitations apply as per FD10.1
 - If Duty Period > 18 hours, at crew discretion, where the next operating sector has a flight time < 4 hours – 24 hours. The minimum rest period before operating any **Relevant Sector** is to then be 36 hours.
- Following **Relevant Sectors** inbound to Australia or New Zealand:
 - 36 hours where the next operation is returning to same time zone destination;
 - 22 hours where the next operation is a domestic or trans-Tasman sector.

FD14.1.2 Two Pilot Current TOD

2 Pilot Duty Period Operational



* Additional 1 hour rest for each 15 minutes or part thereof when DP exceeds 11 hours.