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Delegations will find attached Commission document D028112/02.

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**D028112/02**



Brussels, **XXX**  
[...](2013)

**COMMISSION REGULATION (EU) No .../..**

**of XXX**

**amending Regulation (EU) No 965/2012 laying down technical requirements and administrative procedures related to air operations pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council**

# COMMISSION REGULATION (EU) No .../..

of **XXX**

## **amending Regulation (EU) No 965/2012 laying down technical requirements and administrative procedures related to air operations pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council**

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Regulation (EC) No 216/2008 of the European Parliament and of the Council of 20 February 2008 on common rules in the field of civil aviation and establishing a European Aviation Safety Agency, and repealing Council Directive 91/670/EEC, Regulation (EC) No 1592/2002 and Directive 2004/36/EC<sup>1</sup>, and in particular Article 8(5) thereof,

Whereas:

- (1) Regulation (EU) No 965/2012 lays down technical requirements and administrative procedures related to air operations which replaced Annex III to Council Regulation (EEC) No 3922/91<sup>2</sup>, excluding Subpart Q concerning flight and duty time limitations and rest requirements.
- (2) In accordance with Article 22(2) of Regulation (EC) No 216/2008, implementing rules related to flight and duty times and rest requirements should initially include all substantive provisions of Subpart Q of Annex III to Regulation (EEC) No 3922/91, taking into account the latest scientific and technical evidence.
- (3) This Regulation constitutes an implementing measure referred to in Article 8(5) and 22(2) of Regulation (EC) No 216/2008, therefore Subpart Q of Annex III to Regulation (EEC) No 3922/91 should be deleted in accordance with Article 69(3) of Regulation (EC) No 216/2008. However, Subpart Q of Annex III to Regulation (EEC) No 3922/91 should continue to apply until the transitional periods foreseen in this Regulation have expired and for the types of operations for which no implementing measures have been established.
- (4) This Regulation is without prejudice to the limits and minimum standards already established by Council Directive 2000/79/EC<sup>3</sup>, in particular the provisions on working time and days free of duty, which should always be respected for mobile staff in civil aviation. The provisions of this Regulation and other provisions approved pursuant to this Regulation are not intended to justify any reductions in existing levels of protections for that mobile staff. The provisions of this Regulation

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<sup>(1)</sup> OJ L 79, 19.3.2008, p. 1.

<sup>(2)</sup> OJ L 373, 31.12.1991, p. 4.

<sup>(3)</sup> OJ L 302, 1.12.2000, p. 57.

do not preclude and should be without prejudice to more protective national social legislation and collective labour agreements concerning working conditions and health and safety at work.

- (5) Member States may derogate or deviate from this Regulation or the related certification specifications respectively, by applying provisions of a level of safety which is at least equivalent to the provisions of this Regulation, in order to better address particular national considerations or operational practices. Any derogations or deviations from this Regulation should be notified and treated in accordance with Articles 14 and 22 of Regulation (EC) No 216/2008, which ensure transparent and non-discriminatory decisions based on objective criteria.
- (6) The European Aviation Safety Agency (hereinafter "the Agency") prepared draft implementing rules and submitted them as an opinion<sup>4</sup> to the Commission in accordance with Article 19(1) of Regulation (EC) No 216/2008.
- (7) Regulation (EU) No 965/2012 should therefore be amended to include flight and duty time limitations and rest requirements.
- (8) The measures provided for in this Regulation are in accordance with the opinion of the Committee established by Article 65 of Regulation (EC) No 216/2008,

HAS ADOPTED THIS REGULATION:

#### *Article 1*

Regulation (EU) No 965/2012. is amended as follows:

1. In Article 2, the following point (5) is added:

"(5) "air taxi operation" means, for the purpose of flight time and duty time limitations, a non-scheduled on demand commercial air transport operation with an aeroplane with a maximum operational passenger seating configuration ('MOPSC') of 19 or less.";

2. Article 8 is replaced by the following:

#### "Article 8

##### **Flight time limitations**

1. CAT operations with aeroplanes shall be subject to Subpart FTL of Annex III.
2. By way of derogation from paragraph 1, air taxi, emergency medical service and single pilot CAT operations by aeroplanes shall be subject to Article 8(4) of Regulation (EEC) No 3922/91 and Subpart Q of Annex III to Regulation

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<sup>(4)</sup> Opinion No 04/2012 of the European Aviation Safety Agency of 28 September 2012 for a Regulation establishing Implementing Rules on Flight and Duty Time Limitations and rest requirements (FTL) for commercial air transport (CAT) with aeroplanes (<http://www.easa.europa.eu/agency-measures/docs/opinions/2012/04/EN%20to%20Opinion%2004-2012.pdf>).

(EEC) No 3922/91 and to related national exemptions based on safety risk assessments carried out by the competent authorities.

3. CAT operations with helicopters shall comply with national requirements.";

3. The following Article 9a is inserted:

"Article 9a

The Agency shall conduct a continuous review of the effectiveness of the provisions concerning flight and duty time limitations and rest requirements contained in Annexes II and III. No later than [*3 years after the date of application of this amending Regulation*] the Agency shall produce a first report on the results of this review.

That review shall involve scientific expertise and shall be based on operational data gathered, with the assistance of Member States, on a long term basis after the date of application of this Regulation.

The review referred to in paragraph 1 shall assess the impact on aircrew alertness of at least the following:

- duties of more than 13 hours at the most favourable time of the day;
- duties of more than 10 hours at less favourable time of the day;
- duties of more than 11 hours for crew members in an unknown state of acclimatisation;
- duties including a high level of sectors (more than 6);
- on-call duties such as standby or reserve followed by flight duties; and
- disruptive schedules.";

4. Annex II is amended in accordance with Annex I to this Regulation;

5. Annex III is amended in accordance with Annex II to this Regulation.

## *Article 2*

This Regulation shall enter into force on the twentieth day following that of its publication in the Official Journal of the European Union.

It shall apply from [*2 years after its entry into force*].

By way of derogation from the second paragraph, Member States may choose not to apply the provisions of point ORO.FTL.205(e) of Annex III to Regulation (EU) No 965/2012 and continue to apply the existing national provisions concerning in-flight rest until [*3 years after the entry into force of this Regulation -1 day*].

When a Member State applies the provisions of the third paragraph, it shall notify the Commission and the Agency and it shall describe the reasons for the derogation, its duration as well as the programme for implementation containing the envisaged actions and the related timing.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels,

*For the Commission*

*The President*

## ANNEX I

In Annex II to Regulation (EU) No 965/2012, the following points ARO.OPS.230 and ARO.OPS.235 are added:

### **"ARO.OPS.230 Determination of disruptive schedules**

For the purpose of flight time limitations, the competent authority shall determine, in accordance with the definitions of 'early type' and 'late type' of disruptive schedules in point ORO.FTL.105 of Annex III, which of those two types of disruptive schedules shall apply to all CAT operators under its oversight.

### **ARO.OPS.235 Approval of individual flight time specification schemes**

- (a) The competent authority shall approve flight time specification schemes proposed by CAT operators if the operator demonstrates compliance with Regulation (EC) No 216/2008 and Subpart FTL of Annex III to this Regulation.
- (b) Whenever a flight time specification scheme proposed by an operator deviates from the applicable certification specifications issued by the Agency, the competent authority shall apply the procedure described in Article 22(2) of Regulation (EC) No 216/2008.
- (c) Whenever a flight time specification scheme proposed by an operator derogates from applicable implementing rules, the competent authority shall apply the procedure described in Article 14(6) of Regulation (EC) No 216/2008.
- (d) Approved deviations or derogations shall be subject, after being applied, to an assessment to determine whether such deviations or derogations should be confirmed or amended. The competent authority and the Agency shall conduct an independent assessment based on information provided by the operator. The assessment shall be proportionate, transparent and based on scientific principles and knowledge."

## ANNEX II

In Annex III to Regulation (EU) No 965/2012, the following Subpart FTL is added:

### "SUBPART FTL

#### ***FLIGHT AND DUTY TIME LIMITATIONS AND REST REQUIREMENTS***

#### SECTION 1

#### *General*

#### **ORO.FTL.100 Scope**

This Subpart establishes the requirements to be met by an operator and its crew members with regard to flight and duty time limitations and rest requirements for crew members.

#### **ORO.FTL.105 DEFINITIONS**

For the purpose of this Subpart, the following definitions shall apply:

- (1) 'acclimatised' 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 2-hour wide time zone surrounding the local time at the point of departure. When the local time at the place where a duty commences differs by more than 2 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 in accordance with the values in the Table 1.

Table 1

<b>Time difference (h) between reference time and local time where the crew member starts the next duty</b>	<b>Time elapsed since reporting at reference time</b>				
	<b>&lt;48</b>	<b>48–71:59</b>	<b>72–95:59</b>	<b>96–119:59</b>	<b>≥120</b>
< 4	B	D	D	D	D
≤6	B	X	D	D	D
≤9	B	X	X	D	D
≤12	B	X	X	X	D

‘B’ means acclimatised to the local time of the departure time zone,

‘D’ means acclimatised to the local time where the crew member starts his/her next duty, and

‘X’ means that a crew member is in an unknown state of acclimatisation.

- (2) ‘reference time’ means the local time at the reporting point situated in a 2-hour wide time zone band around the local time where a crew member is acclimatised;
- (3) ‘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;
- (4) ‘suitable accommodation’ means, for the purpose of standby, split duty and rest, a separate room for each 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;
- (5) ‘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 appropriately qualified flight crew member;
- (6) ‘break’ means a period of time within an flight duty period, shorter than a rest period, counting as duty and during which a crew member is free of all tasks;
- (7) ‘delayed reporting’ means the postponement of a scheduled FDP by the operator before a crew member has left the place of rest;
- (8) ‘disruptive schedule’ means a crew member’s roster which disrupts the sleep opportunity during the optimal sleep time window by comprising an FDP or a combination of FDPs which encroach, start or finish during any portion of the day or of the night where a crew member is acclimatised; A schedule may be disruptive due to early starts, late finishes or night duties.
  - (a) ‘early type’ of disruptive schedule means:
    - i. for ‘early start’ a duty period starting in the period between 05:00 and 05:59 in the time zone to which a crew member is acclimatised; and
    - ii. for ‘late finish’ a duty period finishing in the period between 23:00 and 01:59 in the time zone to which a crew member is acclimatised.
  - (b) ‘late type’ of disruptive schedule means:
    - i. for ‘early start’ a duty period starting in the period between 05:00 and 06:59 in the time zone to which a crew member is acclimatised; and

- ii. for 'late finish' a duty period finishing in the period between 00:00 and 01:59 in the time zone to which a crew member is acclimatised.
- (9) 'night duty' means a duty period encroaching any portion of the period between 02:00 and 04:59 in the time zone to which the crew is acclimatised;
- (10) 'duty' means any task that a crew member performs for the operator, including flight duty, administrative work, giving or receiving training and checking, positioning, and some elements of standby;
- (11) 'duty period' means a period which starts when a crew member is required by an operator to report for or to commence a duty and ends when that person is free of all duties, including post-flight duty;
- (12) 'flight duty period ('FDP')' means a period that commences when a crew member is required to report for duty, which includes a sector or a series of sectors, and finishes when the aircraft finally comes to rest and the engines are shut down, at the end of the last sector on which the crew member acts as an operating crew member;
- (13) 'flight time' means, for aeroplanes and touring motor gliders, the time between an aircraft first moving from its parking place for the purpose of taking off until it comes to rest on the designated parking position and all engines or propellers are shut down.
- (14) 'home base' means the location, assigned by the operator to the crew member, from where the crew member normally starts and ends a duty period or a series of duty periods and where, under normal circumstances, the operator is not responsible for the accommodation of the crew member concerned;
- (15) 'local day' means a 24-hour period commencing at 00:00 local time;
- (16) 'local night' means a period of 8 hours falling between 22:00 and 08:00 local time;
- (17) 'operating crew member' means a crew member carrying out duties in an aircraft during a sector;
- (18) 'positioning' means the transferring of a non-operating crew member from one place to another, at the behest of the operator, excluding:
- the time of travel from a private place of rest to the designated reporting place at home base and vice versa, and
  - the time for local transfer from a place of rest to the commencement of duty and vice versa;
- (19) 'rest facility' means a bunk or seat with leg and foot support suitable for crew members' sleeping on board an aircraft.
- (20) 'reserve' means a period of time during which a crew member is required by the operator to be available to receive an assignment for an FDP, positioning or other duty notified at least 10 hours in advance.

- (21) 'rest period' means a continuous, uninterrupted and defined period of time, following duty or prior to duty, during which a crew member is free of all duties, standby and reserve.
- (22) 'rotation' is a duty or a series of duties, including at least one flight duty, and rest periods out of home base, starting at home base and ending when returning to home base for a rest period where the operator is no longer responsible for the accommodation of the crew member.
- (23) 'single day free of duty' means, for the purpose of complying with the provisions of Council Directive 2000/79/EC, a time free of all duties and standby consisting of one day and two local nights, which is notified in advance. A rest period may be included as part of the single day free of duty.
- (24) 'sector' means the segment of an FDP between an aircraft first moving for the purpose of taking off until it comes to rest after landing on the designated parking position.
- (25) 'standby' means a pre-notified and defined period of time during which a crew member is required by the operator to be available to receive an assignment for a flight, positioning or other duty without an intervening rest period.
- (26) 'airport standby' means a standby performed at the airport;
- (27) 'other standby' means a standby either at home or in a suitable accommodation;
- (28) 'window of circadian low ('WOCL') means the period between 02:00 and 05:59 hours in the time zone to which a crew member is acclimatised.

#### **ORO.FTL.110 OPERATOR RESPONSIBILITIES**

An operator shall:

- (a) publish duty rosters sufficiently in advance to provide the opportunity for crew members to plan adequate rest;
- (b) ensure that flight duty periods are planned in a way that enables crew members to remain sufficiently free from fatigue so that they can operate to a satisfactory level of safety under all circumstances;
- (c) specify reporting times that allow sufficient time for ground duties;
- (d) take into account the relationship between the frequency and pattern of flight duty periods and rest periods and give consideration to the cumulative effects of undertaking long duty hours combined with minimum rest periods;
- (e) allocate duty patterns which avoid practices that cause a serious disruption of an established sleep/work pattern, such as alternating day/night duties;
- (f) comply with the provisions concerning disruptive schedules in accordance with ARO.OPS.230;

- (g) provide rest periods of sufficient time to enable crew members to overcome the effects of the previous duties and to be rested by the start of the following flight duty period;
- (h) plan recurrent extended recovery rest periods and notify crew members sufficiently in advance;
- (i) plan flight duties in order to be completed within the allowable flight duty period taking into account the time necessary for pre-flight duties, the sector and turnaround times;
- (j) change a schedule and/or crew arrangements if the actual operation exceeds the maximum flight duty period on more than 33% of the flight duties in that schedule during a scheduled seasonal period.

#### **ORO.FTL.115 CREW MEMBER RESPONSIBILITIES**

Crew members shall:

- (a) comply with point CAT.GEN.MPA.100 (b) of Annex IV (Part-CAT); and
- (b) make optimum use of the opportunities and facilities for rest provided and plan and use their rest periods properly.

#### **ORO.FTL.120 FATIGUE RISK MANAGEMENT (FRM)**

- (a) When FRM is required by this Subpart or an applicable certification specification, the operator shall establish, implement and maintain a FRM as an integral part of its management system. The FRM shall ensure compliance with the essential requirements in points 7.f., 7.g. and 8.f. of Annex IV to Regulation (EC) No 216/2008. The FRM shall be described in the operations manual.
- (b) The FRM established, implemented and maintained shall provide for continuous improvement to the overall performance of the FRM and shall include:
  - (1) a description of the philosophy and principles of the operator with regard to FRM, referred to as the FRM policy;
  - (2) documentation of the FRM processes, including a process for making personnel aware of their responsibilities and the procedure for amending this documentation;
  - (3) scientific principles and knowledge;
  - (4) a hazard identification and risk assessment process that allows managing the operational risk(s) of the operator arising from crew member fatigue on a continuous basis;
  - (5) a risk mitigation process that provides for remedial actions to be implemented promptly, which are necessary to effectively mitigate the operator's risk(s)

arising from crew member fatigue and for continuous monitoring and regular assessment of the mitigation of fatigue risks achieved by such actions;

- (6) FRM safety assurance processes;
  - (7) FRM promotion processes.
- (c) The FRM shall correspond to the flight time specification scheme, the size of the operator and the nature and complexity of its activities, taking into account the hazards and associated risks inherent in those activities and the applicable flight time specification scheme.
- (d) The operator shall take mitigating actions when the FRM safety assurance process shows that the required safety performance is not maintained.

#### **ORO.FTL.125 FLIGHT TIME SPECIFICATION SCHEMES**

- (a) Operators shall establish, implement and maintain flight time specification schemes that are appropriate for the type(s) of operation performed and that comply with Regulation (EC) No 216/2008, this Subpart and other applicable legislation, including Directive 2000/79/EC.
- (b) Before being implemented, flight time specification schemes, including any related FRM where required, shall be approved by the competent authority.
- (c) To demonstrate compliance with Regulation (EC) No 216/2008 and this Subpart, the operator shall apply the applicable certification specifications adopted by the Agency. Alternatively, if the operator wants to deviate from those certification specifications in accordance with Article 22(2) of Regulation (EC) No 216/2008, it shall provide the competent authority with a full description of the intended deviation prior to implementing it. The description shall include any revisions to manuals or procedures that may be relevant, as well as an assessment demonstrating that the requirements of Regulation (EC) No 216/2008 and of this Subpart are met.
- (d) For the purpose of point ARO.OPS.235(d), within 2 years of the implementation of a deviation or derogation, the operator shall collect data concerning the granted deviation or derogation and analyse that data using scientific principles with a view to assessing the effects of the deviation or derogation on aircrew fatigue. Such analysis shall be provided in the form of a report to the competent authority.

## SECTION 2

### *Commercial Air Transport Operators*

#### **ORO.FTL.200 HOME BASE**

An operator shall assign a home base to each crew member.

## **ORO.FTL.205 FLIGHT DUTY PERIOD (FDP)**

- (a) The operator shall:
  - (1) define reporting times appropriate to each individual operation taking into account ORO.FTL.110(c);
  - (2) establish procedures specifying how the commander shall, in case of special circumstances which could lead to severe fatigue, and after consultation with the crew members concerned, reduce the actual FDP and/or increase the rest period in order to eliminate any detrimental effect on flight safety.
- (b) Basic maximum daily FDP.
  - (1) The maximum daily FDP without the use of extensions for acclimatised crew members shall be in accordance with the following table:

Table 2

**Maximum daily FDP — Acclimatised crew members**

<b>Start of FDP reference time</b>	<b>1–2 Sectors</b>	<b>3 Sectors</b>	<b>4 Sectors</b>	<b>5 Sectors</b>	<b>6 Sectors</b>	<b>7 Sectors</b>	<b>8 Sectors</b>	<b>9 Sectors</b>	<b>10 Sectors</b>
0600–1329	13:00	12:30	12:00	11:30	11:00	10:30	10:00	09:30	09:00
1330–1359	12:45	12:15	11:45	11:15	10:45	10:15	09:45	09:15	09:00
1400–1429	12:30	12:00	11:30	11:00	10:30	10:00	09:30	09:00	09:00
1430–1459	12:15	11:45	11:15	10:45	10:15	09:45	09:15	09:00	09:00
1500–1529	12:00	11:30	11:00	10:30	10:00	09:30	09:00	09:00	09:00
1530–1559	11:45	11:15	10:45	10:15	09:45	09:15	09:00	09:00	09:00
1600–1629	11:30	11:00	10:30	10:00	09:30	09:00	09:00	09:00	09:00
1630–1659	11:15	10:45	10:15	09:45	09:15	09:00	09:00	09:00	09:00
1700–0459	11:00	10:30	10:00	09:30	09:00	09:00	09:00	09:00	09:00
0500–0514	12:00	11:30	11:00	10:30	10:00	09:30	09:00	09:00	09:00
0515–0529	12:15	11:45	11:15	10:45	10:15	09:45	09:15	09:00	09:00
0530–0544	12:30	12:00	11:30	11:00	10:30	10:00	09:30	09:00	09:00
0545–0559	12:45	12:15	11:45	11:15	10:45	10:15	09:45	09:15	09:00

- (2) The maximum daily FDP when crew members are in an unknown state of acclimatisation shall be in accordance with the following table:

Table 3

**Crew members in an unknown state of acclimatisation**

<b>Maximum daily FDP according to sectors</b>						
1–2	3	4	5	6	7	8
11:00	10:30	10:00	09:30	09:00	09:00	09:00

- (3) The maximum daily FDP when crew members are in an unknown state of acclimatisation and the operator has implemented a FRM, shall be in accordance with the following table:

*Table 4*

**Crew members in an unknown state of acclimatisation under FRM**

The values in the following table may apply provided the operator's FRM continuously monitors that the required safety performance is maintained.

<b>Maximum daily FDP according to sectors</b>						
1-2	3	4	5	6	7	8
12:00	11:30	11:00	10:30	10:00	09:30	09:00

- (c) FDP with different reporting time for flight crew and cabin crew.

Whenever cabin crew requires more time than the flight crew for their pre-flight briefing for the same sector or series of sectors, the FDP of the cabin crew may be extended by the difference in reporting time between the cabin crew and the flight crew. The difference shall not exceed 1 hour. The maximum daily FDP for cabin crew shall be based on the time at which the flight crew report for their FDP, but the FDP shall start at the reporting time of the cabin crew.

- (d) Maximum daily FDP for acclimatised crew members with the use of extensions without in-flight rest.

- (1) The maximum daily FDP may be extended by up to 1 hour not more than twice in any 7 consecutive days. In that case:
  - (i) the minimum pre-flight and post-flight rest periods shall be increased by 2 hours; or
  - (ii) the post-flight rest period shall be increased by 4 hours.
- (2) When extensions are used for consecutive FDPs, the additional pre- and post-flight rest between the two extended FDPs required under subparagraph 1 shall be provided consecutively.
- (3) The use of the extension shall be planned in advance, and shall be limited to a maximum of:
  - (i) 5 sectors when the WOCL is not encroached; or
  - (ii) 4 sectors, when the WOCL is encroached by 2 hours or less; or
  - (iii) 2 sectors, when the WOCL is encroached by more than 2 hours.

- (4) Extension of the maximum basic daily FDP without in-flight rest shall not be combined with extensions due to in-flight rest or split duty in the same duty period.
  - (5) Flight time specification schemes shall specify the limits for extensions of the maximum basic daily FDP in accordance with the certification specifications applicable to the type of operation, taking into account:
    - (i) the number of sectors flown; and
    - (ii) WOCL encroachment.
- (e) Maximum daily FDP with the use of extensions due to in-flight rest
- Flight time specification schemes shall specify the conditions for extensions of the maximum basic daily FDP with in-flight rest in accordance with the certification specifications applicable to the type of operation, taking into account:
- (i) the number of sectors flown;
  - (ii) the minimum in-flight rest allocated to each crew member;
  - (iii) the type of in-flight rest facilities; and
  - (iv) the augmentation of the basic flight crew.
- (f) Unforeseen circumstances in flight operations — commander’s discretion
- (1) The conditions to modify the limits on flight duty, duty and rest periods by the commander in the case of unforeseen circumstances in flight operations, which start at or after the reporting time, shall comply with the following:
    - (i) the maximum daily FDP which results after applying points (b) and (e) of point ORO.FTL.205 or point ORO.FTL.220 may not be increased by more than 2 hours unless the flight crew has been augmented, in which case the maximum flight duty period may be increased by not more than 3 hours;
    - (ii) if on the final sector within an FDP the allowed increase is exceeded because of unforeseen circumstances after take-off, the flight may continue to the planned destination or alternate aerodrome; and
    - (iii) the rest period following the FDP may be reduced but can never be less than 10 hours.
  - (2) In case of unforeseen circumstances which could lead to severe fatigue, the commander shall reduce the actual flight duty period and/or increase the rest period in order to eliminate any detrimental effect on flight safety.
  - (3) The commander shall consult all crew members on their alertness levels before deciding the modifications under subparagraphs 1 and 2.

- (4) The commander shall submit a report to the operator when an FDP is increased or a rest period is reduced at his or her discretion.
  - (5) Where the increase of an FDP or reduction of a rest period exceeds 1 hour, a copy of the report, to which the operator shall add its comments, shall be sent by the operator to the competent authority not later than 28 days after the event.
  - (6) The operator shall implement a non-punitive process for the use of the discretion described under this provision and shall describe it in the operations manual.
- (g) Unforeseen circumstances in flight operations — delayed reporting

The operator shall establish procedures, in the operations manual, for delayed reporting in the event of unforeseen circumstances, in accordance with the certification specifications applicable to the type of operation.

#### **ORO.FTL.210 FLIGHT TIMES AND DUTY PERIODS**

- (a) The total duty periods to which a crew member may be assigned shall not exceed:
  - (1) 60 duty hours in any 7 consecutive days;
  - (2) 110 duty hours in any 14 consecutive days; and
  - (3) 190 duty hours in any 28 consecutive days, spread as evenly as practicable throughout that period.
- (b) The total flight time of the sectors on which an individual crew member is assigned as an operating crew member shall not exceed:
  - (1) 100 hours of flight time in any 28 consecutive days;
  - (2) 900 hours of flight time in any calendar year; and
  - (3) 1 000 hours of flight time in any 12 consecutive calendar months.
- (c) Post-flight duty shall count as duty period. The operator shall specify in its operations manual the minimum time period for post-flight duties.

#### **ORO.FTL.215 POSITIONING**

If an operator positions a crew member, the following shall apply:

- (a) Positioning after reporting but prior to operating shall be counted as FDP but shall not count as a sector;
- (b) All time spent on positioning shall count as duty period.

### **ORO.FTL.220 SPLIT DUTY**

The conditions for extending the basic maximum daily FDP due to a break on the ground shall be in accordance with the following:

- (a) Flight time specification schemes shall specify the following elements for split duty in accordance with the certification specifications applicable to the type of operation:
  - (1) the minimum duration of a break on the ground; and
  - (2) the possibility to extend the FDP prescribed under point ORO.FTL.205(b) taking into account the duration of the break on the ground, the facilities provided to the crew member to rest and other relevant factors.
- (b) The break on the ground shall count in full as FDP.
- (c) Split duty shall not follow a reduced rest.

### **ORO.FTL.225 STANDBY AND DUTIES AT THE AIRPORT**

If an operator assigns crew members to standby or to any duty at the airport, the following shall apply in accordance with the certification specifications applicable to the type of operation:

- (a) Standby and any duty at the airport shall be in the roster and the start and end time of standby shall be defined and notified in advance to the crew members concerned to provide them with the opportunity to plan adequate rest.
- (b) A crew member is considered on airport standby from reporting at the reporting point until the end of the notified airport standby period.
- (c) Airport standby shall count in full as duty period for the purpose of points ORO.FTL.210 and ORO.FTL.235.
- (d) Any duty at the airport shall count in full as duty period and the FDP shall count in full from the airport duty reporting time.
- (e) The operator shall provide accommodation to the crew member on airport standby.
- (f) Flight time specification schemes shall specify the following elements:
  - (1) the maximum duration of any standby;
  - (2) the impact of the time spent on standby on the maximum FDP that may be assigned, taking into account facilities provided to the crew member to rest, and other relevant factors such as:
    - the need for immediate readiness of the crew member,
    - the interference of standby with sleep, and

- sufficient notification to protect a sleep opportunity between the call for duty and the assigned FDP;
- (3) the minimum rest period following standby which does not lead to assignment of an FDP;
- (4) how time spent on standby other than airport standby shall be counted for the purpose of cumulative duty periods.

#### **ORO.FTL.230 RESERVE**

If an operator assigns crew members to reserve, the following requirements shall apply in accordance with the certification specifications applicable to the type of operation:

- (a) Reserve shall be in the roster;
- (b) Flight time specification schemes shall specify the following elements:
  - (1) the maximum duration of any single reserve period;
  - (2) the number of consecutive reserve days that may be assigned to a crew member.

#### **ORO.FTL.235 REST PERIODS**

- (a) Minimum rest period at home base.
  - (1) The minimum rest period provided before undertaking an FDP starting at home base shall be at least as long as the preceding duty period, or 12 hours, whichever is greater.
  - (2) By way of derogation from point (1), the minimum rest provided under point (b) applies if the operator provides suitable accommodation to the crew member at home base.
- (b) Minimum rest period away from home base.

The minimum rest period provided before undertaking an FDP starting away from home base shall be at least as long as the preceding duty period, or 10 hours, whichever is greater. This period shall include an 8-hour sleep opportunity in addition to the time for travelling and physiological needs.

- (c) Reduced rest

By derogation from points (a) and (b), flight time specification schemes may reduce the minimum rest periods in accordance with the certification specifications applicable to the type of operation and taking into account the following elements:

- (1) the minimum reduced rest period;
- (2) the increase of the subsequent rest period; and

- (3) the reduction of the FDP following the reduced rest.
- (d) Recurrent extended recovery rest periods

Flight time specification schemes shall specify recurrent extended recovery rest periods to compensate for cumulative fatigue. The minimum recurrent extended recovery rest period shall be 36 hours, including 2 local nights, and in any case the time between the end of one recurrent extended recovery rest period and the start of the next extended recovery rest period shall not be more than 168 hours. The recurrent extended recovery rest period shall be increased to 2 local days twice every month.

- (e) Flight time specification schemes shall specify additional rest periods in accordance with the applicable certification specifications to compensate for:
  - (1) the effects of time zone differences and extensions of the FDP;
  - (2) additional cumulative fatigue due to disruptive schedules; and
  - (3) a change of home base.

#### **ORO.FTL.240 NUTRITION**

- (a) During the FDP there shall be the opportunity for a meal and drink in order to avoid any detriment to a crew member's performance, especially when the FDP exceeds 6 hours.
- (b) An operator shall specify in its operations manual how the crew member's nutrition during FDP is ensured.

#### **ORO.FTL.245 RECORDS OF HOME BASE, FLIGHT TIMES, DUTY AND REST PERIODS**

- (a) An operator shall maintain, for a period of 24 months:
  - (1) Individual records for each crew member including:
    - (i) flight times;
    - (ii) start, duration and end of each duty period and FDP;
    - (iii) rest periods and days free of all duties; and
    - (iv) assigned home base.
  - (2) Reports on extended flight duty periods and reduced rest periods.
- (b) Upon request, the operator shall provide copies of individual records of flight times, duty periods and rest periods to:
  - (1) the crew member concerned; and

- (2) to another operator, in relation to a crew member who is or becomes a crew member of the operator concerned.
- (c) Records referred to in point CAT.GEN.MPA.100(b)(5) in relation to crew members who undertake duties for more than one operator shall be kept for a period of 24 months.

**ORO.FTL.250 FATIGUE MANAGEMENT TRAINING**

- (a) The operator shall provide initial and recurrent fatigue management training to crew members, personnel responsible for preparation and maintenance of crew rosters and management personnel concerned.
- (b) This training shall follow a training programme established by the operator and described in the operations manual. The training syllabus shall cover the possible causes and effects of fatigue and fatigue countermeasure."