

Town and Country Planning Act 1990
Appeal by Bristol Airport Limited
Bristol Airport, North Side Road, Felton, Bristol

Appeal Reference: APP/D0121/W/20/3259234
Planning Application Ref: 18/P/5118/OUT

Appendix to Proof of Evidence
Simon Williams

Ref: BALPA W/3/2

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► **B**

**COMMISSION REGULATION (EU) No 965/2012
of 5 October 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**

(OJ L 296, 25.10.2012, p. 1)

Amended by:

		Official Journal		
		No	page	date
► <u>M1</u>	Commission Regulation (EU) No 800/2013 of 14 August 2013	L 227	1	24.8.2013
► <u>M2</u>	Commission Regulation (EU) No 71/2014 of 27 January 2014	L 23	27	28.1.2014
► <u>M3</u>	Commission Regulation (EU) No 83/2014 of 29 January 2014	L 28	17	31.1.2014
► <u>M4</u>	Commission Regulation (EU) No 379/2014 of 7 April 2014	L 123	1	24.4.2014
► <u>M5</u>	Commission Regulation (EU) 2015/140 of 29 January 2015	L 24	5	30.1.2015
► <u>M6</u>	Commission Regulation (EU) 2015/640 of 23 April 2015	L 106	18	24.4.2015
► <u>M7</u>	Commission Regulation (EU) 2015/1329 of 31 July 2015	L 206	21	1.8.2015
► <u>M8</u>	Commission Regulation (EU) 2015/2338 of 11 December 2015	L 330	1	16.12.2015
► <u>M9</u>	Commission Regulation (EU) 2016/1199 of 22 July 2016	L 198	13	23.7.2016
► <u>M10</u>	Commission Regulation (EU) 2017/363 of 1 March 2017	L 55	1	2.3.2017
► <u>M11</u>	Commission Regulation (EU) 2018/394 of 13 March 2018	L 71	1	14.3.2018
► <u>M12</u>	Commission Regulation (EU) 2018/1042 of 23 July 2018	L 188	3	25.7.2018
► <u>M13</u>	Commission Implementing Regulation (EU) 2018/1975 of 14 December 2018	L 326	53	20.12.2018
► <u>M14</u>	Commission Implementing Regulation (EU) 2019/1384 of 24 July 2019	L 228	106	4.9.2019
► <u>M15</u>	Commission Implementing Regulation (EU) 2019/1387 of 1 August 2019	L 229	1	5.9.2019

Corrected by:

- **C1** Corrigendum, OJ L 230, 6.9.2019, p. 10 (2019/1384)

▼B**COMMISSION REGULATION (EU) No 965/2012****of 5 October 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****▼M4***Article 1***Subject matter and scope****▼M13**

1. This Regulation lays down detailed rules for air operations with aeroplanes and helicopters, including ramp inspections of aircraft of operators under the safety oversight of another State when landed at aerodromes located in the territory subject to the provisions of the Treaties.

2. This Regulation also lays down detailed rules on the conditions for issuing, maintaining, amending, limiting, suspending or revoking the certificates of operators of aircraft referred to in points (b)(i) and (ii) of Article 2(1) of Regulation (EU) 2018/1139, except for balloons and sailplanes, engaged in commercial air transport operation, the privileges and responsibilities of the holders of certificates as well as conditions under which operations shall be prohibited, limited or subject to certain conditions in the interest of safety;

3. This Regulation also lays down detailed rules on the conditions and procedures for the declaration by operators engaged in commercial specialised operations of aeroplanes and helicopters or in non-commercial operation of complex motor-powered aircraft, including non-commercial specialised operations of complex motor-powered aircraft, of their capability and the availability of the means to discharge the responsibilities associated with the operation of aircraft, and for the oversight of such operators.

▼M4

4. This Regulation also lays down detailed rules on the conditions under which certain high risk commercial specialised operations shall be subject to authorisation in the interest of safety, and on the conditions for issuing, maintaining, amending, limiting, suspending or revoking the authorisations.

5. This Regulation shall not apply to air operations within the scope of Article 1(2)(a) of Regulation (EC) No 216/2008.

▼M11

6. This Regulation shall not apply to air operations with airships.

▼M13

7. This Regulation shall not apply to air operations with balloons and sailplanes. However, in respect of such air operations with balloons, other than tethered gas balloons, and sailplanes, the requirements in respect of oversight of Article 3 shall apply.

▼B*Article 2***Definitions**

For the purposes of this Regulation:

▼M13

- (1) ‘aeroplane’ means an engine-driven fixed-wing aircraft heavier than air that is supported in flight by the dynamic reaction of the air against its wings;
- (1a) ‘helicopter’ means a heavier-than-air aircraft supported in flight chiefly by the reactions of the air on one or more power-driven rotors on substantially vertical axes;
- (1b) ‘balloon’ means a manned lighter-than-air aircraft which is not power-driven and sustains flight through the use of either a lighter-than-air gas or an airborne heater, including gas balloons, hot-air balloons, mixed balloons and, although power-driven, hot-air airships;
- (1c) ‘sailplane’ means a heavier-than-air aircraft that is supported in flight by the dynamic reaction of the air against its fixed lifting surfaces, the free flight of which does not depend on an engine;
- (1d) ‘commercial operation’ means any operation of an aircraft, in return for remuneration or other valuable consideration, which is available for the public or, when not made available to the public, which is performed under a contract between an operator and a customer, where the latter has no control over the operator;
- (1e) ‘tethered gas balloon’ means a gas balloon with a tether system that continuously anchors the balloon to a fixed point during operation;

▼B

- (2) ‘performance class B aeroplanes’ means aeroplanes powered by propeller engines with a maximum operational passenger seating configuration of nine or less and a maximum take-off mass of 5 700 kg or less;
- (3) ‘public interest site (PIS)’ means a site used exclusively for operations in the public interest;
- (4) ‘operation in performance class 1’ means an operation that, in the event of failure of the critical engine, the helicopter is able to land within the rejected take-off distance available or safely continue the flight to an appropriate landing area, depending on when the failure occurs;

▼M1

- (5) ‘performance-based navigation (PBN)’ means area navigation based on performance requirements for aircraft operating along an ATS route, on an instrument approach procedure or in a designated airspace;

▼M3

- (6) ‘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;

▼ M14

- (7) ‘specialised operation’ means any operation, other than commercial air transport operation, where the aircraft is used for specialised activities such as agriculture, construction, photography, surveying, observation and patrol, aerial advertisement, maintenance check flights;

▼ M4

- (8) ‘high risk commercial specialised operation’ means any commercial specialised aircraft operation carried out over an area where the safety of third parties on the ground is likely to be endangered in the event of an emergency, or, as determined by the competent authority of the place where the operation is conducted, any commercial specialised aircraft operation that, due to its specific nature and the local environment in which it is conducted, poses a high risk, in particular to third parties on the ground;

▼ M13

- (9) ‘introductory flight’ means any operation against remuneration or other valuable consideration consisting of an air tour of short duration for the purpose of attracting new trainees or new members, performed either by a training organisation referred to in Article 10a of Commission Regulation (EU) No 1178/2011 ⁽¹⁾ or by an organisation created with the aim of promoting aerial sport or leisure aviation;

▼ M4

- (10) ‘competition flight’ means any flying activity where the aircraft is used in air races or contests, as well as where the aircraft is used to practice for air races or contests and to fly to and from racing or contest events;
- (11) ‘flying display’ means any flying activity deliberately performed for the purpose of providing an exhibition or entertainment at an advertised event open to the public, including where the aircraft is used to practice for a flying display and to fly to and from the advertised event.

▼ B

Additional definitions are laid down in Annex I for the purposes of Annexes II to ►**M4** VIII ◄.

*Article 3***Oversight capabilities**

1. Member States shall designate one or more entities as the competent authority within that Member State with the necessary powers and allocated responsibilities for the certification and oversight of persons and organisations subject to Regulation (EC) No 216/2008 and its implementing rules.

▼ M11

The administration and management systems of the competent authorities of the Member States and of the Agency shall comply with the requirements specified in Annex II.

⁽¹⁾ Commission Regulation (EU) No 1178/2011 of 3 November 2011 laying down technical requirements and administrative procedures related to civil aviation aircrew pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council (OJ L 311, 25.11.2011, p. 1).

▼B

2. If a Member State designates more than one entity as competent authority:

- (a) the areas of competence of each competent authority shall be clearly defined in terms of responsibilities and geographic limitation; and
- (b) coordination shall be established between those entities to ensure effective oversight of all organisations and persons subject to Regulation (EC) No 216/2008 and its implementing rules within their respective remits.

3. Member States shall ensure that the competent authority(ies) has(ve) the necessary capability to ensure the oversight of all persons and organisations covered by their oversight programme, including sufficient resources to fulfil the requirements of this Regulation.

4. Member States shall ensure that competent authority personnel do not perform oversight activities when there is evidence that this could result directly or indirectly in a conflict of interest, in particular when relating to family or financial interest.

5. Personnel authorised by the competent authority to carry out certification and/or oversight tasks shall be empowered to perform at least the following tasks:

- (a) examine the records, data, procedures and any other material relevant to the execution of the certification and/or oversight task;
- (b) take copies of or extracts from such records, data, procedures and other material;
- (c) ask for an oral explanation on site;
- (d) enter relevant premises, operating sites or means of transport;
- (e) perform audits, investigations, assessments, inspections, including ramp inspections and unannounced inspections;
- (f) take or initiate enforcement measures as appropriate.

6. The tasks under paragraph 5 shall be carried out in compliance with the legal provisions of the relevant Member State.

*Article 4***Ramp inspections**

Ramp inspections of aircraft of operators under the safety oversight of another Member State or of a third country shall be carried out in accordance with Subpart RAMP of Annex II.

▼ B*Article 5***Air operations****▼ M13**

1. Operators shall only operate an aeroplane or a helicopter for the purpose of commercial air transport (hereinafter ‘CAT’) operations as specified in Annexes III and IV.

▼ M4

1a. Operators engaged in CAT operations starting and ending at the same aerodrome/operating site with Performance class B aeroplanes or non-complex helicopters shall comply with the relevant provisions of Annexes III and IV.

▼ B

2. ► M1 ————— ◀ Operators shall comply with the relevant provisions of Annex V when operating:

(a) aeroplanes and helicopters used for:

(i) operations using performance-based navigation (PBN);

(ii) operations in accordance with minimum navigation performance specifications (MNPS);

(iii) operations in airspace with reduced vertical separation minima (RVSM);

(iv) low visibility operations (LVO);

▼ M13

(b) aeroplanes and helicopters used for the transport of dangerous goods (DG);

▼ B

(c) two-engined aeroplanes used for extended range operations (ETOPS) in commercial air transport;

(d) helicopters used for commercial air transport operations with the aid of night vision imaging systems (NVIS);

(e) helicopters used for commercial air transport hoist operations (HHO);

(f) helicopters used for commercial air transport emergency medical service operations (HEMS); and

▼ M9

(g) helicopters used for offshore operations (HOFO).

▼ M4

3. Operators of complex motor-powered aeroplanes and helicopters involved in non-commercial operations shall declare their capability and means to discharge their responsibilities associated with the operation of aircraft and operate the aircraft in accordance with the provisions specified in Annex III and Annex VI. Such operators when engaged in non-commercial specialised operations shall operate the aircraft in accordance with the provisions specified in Annex III and VIII instead.

▼ M13

4. Operators of other-than-complex motor-powered aeroplanes and helicopters involved in non-commercial operations, including non-commercial specialised operations, shall operate the aircraft in accordance with the provisions set out in Annex VII.

5. Training organisations referred to in Article 10a of Regulation (EU) No 1178/2011 and having their principal place of business in a Member State shall, when conducting flight training into, within or out of the Union, operate:

- (a) complex motor-powered aeroplanes and helicopters in accordance with the provisions specified in Annex VI;
- (b) other aeroplanes and helicopters in accordance with the provisions specified in Annex VII.

6. Operators shall only operate an aeroplane or a helicopter for the purpose of commercial specialised operations in accordance with the requirements in Annexes III and VIII.

▼ M4

7. Flights taking place immediately before, during or immediately after specialised operations and directly connected to those operations shall be operated in accordance with paragraphs 3, 4 and 6, as applicable. ► **M5** Except for crew members, persons other than those indispensable to the mission shall not be carried on board. ◀

▼ B*Article 6***Derogations****▼ M4****▼ B**

2. ► **M5** By way of derogation from Article 5(1), aircraft referred to in Article 4(5) of Regulation (EC) No 216/2008 shall, in the case of aeroplanes, be operated under the conditions set out in Commission Decision C(2009) 7633 of 14 October 2009 when used in CAT operations. ◀ Any change to the operation that affects the conditions set out in that Decision shall be notified to the Commission and the European Aviation Safety Agency (hereinafter ‘the Agency’) before the change is implemented.

A Member State, other than an addressee of Decision C(2009)7633, which intends to use the derogation provided for in that Decision shall notify its intention to the Commission and the Agency before the derogation is implemented. The Commission and the Agency shall assess to what extent the change or the intended use deviates from the conditions of Decision C(2009)7633 or impacts on the initial safety assessment performed in the context of that Decision. If the assessment shows that the change or the intended use does not correspond to the initial safety assessment done for Decision C(2009)7633, the Member State concerned shall submit a new derogation request in accordance with Article 14(6) of Regulation (EC) No 216/2008.

▼ M13

3. By way of derogation from Article 5 of this Regulation and without prejudice to point (b) of Article 18(2) of Regulation (EU) 2018/1139 and to Subpart P of Annex I to Commission Regulation (EU) No 748/2012 ⁽¹⁾ concerning the permit to fly, the following flights shall continue to be operated under the requirements specified in the national law of the Member State in which the operator has its principal place of business, or, where the operator has no principal place of business, the place where the operator is established or resides:

- (a) flights related to the introduction or modification of aeroplane or helicopter types conducted by design or production organisations within the scope of their privileges;

▼ M14

- (b) flights carrying no passengers or cargo, where the aeroplane or helicopter is ferried for refurbishment, repair, inspections, delivery, export or similar purposes, provided that the aircraft is not listed on an air operator certificate or on a declaration.

▼ M9

4. Notwithstanding Article 5, Member States may, until 30 June 2018, continue to require a specific approval and additional requirements regarding operational procedures, equipment, crew qualification and training for CAT helicopter offshore operations in accordance with their national law. Member States shall notify the Commission and the Agency of the additional requirements being applied to such specific approvals. Those requirements shall not be less restrictive than those of Annexes III and IV.

▼ M13

4a. By way of derogation from Article 5(1) and (6), the following operations with other-than-complex motor-powered aeroplanes and helicopters may be conducted in accordance with Annex VII:

▼ M4

- (a) cost-shared flights by private individuals, on the condition that the direct cost is shared by all the occupants of the aircraft, pilot included and the number of persons sharing the direct costs is limited to six;
- (b) competition flights or flying displays, on the condition that the remuneration or any valuable consideration given for such flights is limited to recovery of direct costs and a proportionate contribution to annual costs, as well as prizes of no more than a value specified by the competent authority;

▼ M13

- (c) introductory flights, parachute dropping, sailplane towing or aerobatic flights performed either by a training organisation having its principal place of business in a Member State and referred to in Article 10a of Regulation (EU) No 1178/2011, or by an organisation created with the aim of promoting aerial sport or leisure aviation, on the condition that the aircraft is operated by the organisation on the basis of ownership or dry lease, that the flight does not generate profits distributed outside of the organisation, and that whenever non-members of the organisation are involved, such flights represent only a marginal activity of the organisation.

⁽¹⁾ Commission Regulation (EU) No 748/2012 of 3 August 2012 laying down implementing rules for the airworthiness and environmental certification of aircraft and related products, parts and appliances, as well as for the certification of design and production organisations (OJ L 224, 21.8.2012, p. 1).

▼M10

5. Until 2 September 2017, exemptions granted before 22 March 2017 in accordance with Article 8(2) of Regulation (EEC) No 3922/91, as provided for in Article 6(5) of Regulation (EU) No 965/2012 as applicable before 22 March 2017, shall be considered to constitute approvals referred to in point (a) of CAT.POL.A.300 of Annex IV (Part-CAT). After 2 September 2017, those exemptions shall no longer be valid for the operation of single-engined aeroplanes.

If any change to the operation of those aeroplanes that affects the conditions set out in those exemptions is envisaged between 22 March 2017 and 2 September 2017, that envisaged change shall be notified to the Commission and the Agency before it is implemented. The Commission and the Agency shall assess the envisaged change in accordance with Article 14(5) of Regulation (EC) No 216/2008.

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6. Existing helicopter operations to/from a public interest site (PIS) may be conducted in derogation to CAT.POL.H.225 of Annex IV whenever the size of the PIS, the obstacle environment or the helicopter does not permit compliance with the requirements for operation in performance class 1. Such operations shall be conducted under conditions determined by Member States. Member States shall notify the Commission and the Agency of the conditions being applied.

▼M9

8. By way of derogation from the first sentence of Article 5(3), operators of complex motor-powered aeroplanes with a maximum certificated take-off mass (MCTOM) at or below 5 700 kg, equipped with turboprop engines, involved in non-commercial operations, shall operate those aircraft only in accordance with Annex VII.

9. By way of derogation from Article 5(5)(a), training organisations shall, when conducting flight training on complex motor-powered aeroplanes with a maximum certificated take-off mass (MCTOM) at or below 5 700 kg, equipped with turboprop engines, operate those aircraft in accordance with Annex VII.

▼B*Article 7***Air operator certificates**

1. Air operator certificates (AOCs) issued by a Member State to CAT operators of aeroplanes before this Regulation applies in accordance with Regulation (EEC) No 3922/91 shall be deemed to have been issued in accordance with this Regulation.

However, no later than 28 October 2014:

- (a) operators shall adapt their management system, training programmes, procedures and manuals to be compliant with Annexes III, IV and V, as relevant;
- (b) the AOC shall be replaced by certificates issued in accordance with Annex II to this Regulation.

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2. AOCs issued by a Member State to CAT operators of helicopters before this Regulation applies shall be converted into AOCs compliant with this Regulation in accordance with a conversion report established by the Member State that issued the AOC, in consultation with the Agency.

The conversion report shall describe:

- (a) the national requirements on the basis of which the AOCs were issued;
- (b) the scope of privileges that were given to the operators;
- (c) the differences between the national requirements on the basis of which the AOCs were issued and the requirements of Annexes III, IV and V, together with an indication of how and when the operators will be required to ensure full compliance with those Annexes.

The conversion report shall include copies of all documents necessary to demonstrate the elements set out in points (a) to (c), including copies of the relevant national requirements and procedures.

▼M11*Article 8***Flight time limitations**

1. CAT operations shall be subject to the requirements of 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 the requirements specified in the national law referred to in Article 8(4) of Regulation (EEC) No 3922/91 and in Subpart Q of Annex III to that Regulation.

3. By way of derogation from paragraph 1, CAT operations with helicopters and CAT operations with sailplanes shall comply with the requirements specified in the national law of the Member State in which the operator has its principal place of business.

4. Non-commercial operations, including non-commercial specialised operations, with complex motor-powered aeroplanes and helicopters, as well as commercial specialised operations with aeroplanes, helicopters and sailplanes shall comply as regards flight time limitations, with the requirements specified in the national law of the Member State in which the operator has its principal place of business, or, where the operator has no principal place of business, the place where the operator is established or resides.

▼M2*Article 9***Minimum equipment lists**

Minimum equipment lists ('MEL') approved by the State of Operator or Registry before the application of this Regulation, are deemed to be approved in accordance with this Regulation and may continue to be used by the operator.

▼ M2

After the entry into force of this Regulation any change to the MEL referred to in the first subparagraph for which a Master Minimum Equipment List ('MMEL') is established as part of the operational suitability data in accordance with Commission Regulation (EU) No 748/2012 ⁽¹⁾ shall be made in compliance with point ORO.MLR.105 of Section 2 of Annex III to this Regulation at the earliest opportunity and not later than 18 December 2017 or two years after the operational suitability data was approved, whichever is the latest.

Any change to an MEL referred to in the first subparagraph, for which an MMEL has not been established as part of the operational suitability data, shall continue to be made in accordance with the MMEL accepted by the State of Operator or Registry as applicable.

*Article 9a***Flight and cabin crew training**

Operators shall ensure that flight crew and cabin crew members who are already in operation and have completed training in accordance with Subparts FC and CC of Annex III which did not include the mandatory elements established in the relevant operational suitability data, undertake training covering those mandatory elements not later than 18 December 2017 or two years after the approval of the operational suitability data, whichever is the latest.

▼ M15*Article 9aa***Flight crew requirements for maintenance check flights**

A pilot having acted, before 25 September 2019, as a pilot-in-command on a maintenance check flight that in accordance with the definition in point SPO.SPEC.MCF.100 in Annex VIII is categorised as a Level A maintenance check flight, shall be given credit for the purpose of complying with point SPO.SPEC.MCF.115(a)(1) of that Annex. In that case, the operator shall ensure that the pilot-in-command receives a briefing on any differences identified between the operating practices established before 25 September 2019 and the obligations provided in Section 5 of Subpart E of Annex VIII to this Regulation including those derived from the related procedures established by the operator.

▼ M5*Article 9b***Review**

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 18 February 2019 the Agency shall produce a first report on the results of this review.

⁽¹⁾ OJ L 224, 21.8.2012, p. 1.

▼ M5

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 shall assess the impact of at least the following on the alertness of aircrew:

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

▼ M9*Article 10***Entry into force**

► **M13** ————— ◀ This Regulation shall enter into force on the third day following that of its publication in the *Official Journal of the European Union*.

▼ M13

It shall apply from 28 October 2012.

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

▼ **M3**

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

Time difference (h) between reference time and local time where the crew member starts the next duty	Time elapsed since reporting at reference time				
	< 48	48–71:59	72–95:59	96–119:59	≥ 120
< 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;

▼ **M3**

- (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 a 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;

▼ M13

- (13) 'flight time' means, for aeroplanes, 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;

▼ M3

- (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 ⁽¹⁾, 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;

⁽¹⁾ OJ L 302, 1.12.2000, p. 57.

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- (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.

▼ M3**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.

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- (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**

Start of FDP at reference time	1–2 Sectors	3 Sectors	4 Sectors	5 Sectors	6 Sectors	7 Sectors	8 Sectors	9 Sectors	10 Sectors
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

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- (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**

Maximum daily FDP according to sectors						
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.

Maximum daily FDP according to sectors						
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.

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- (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.

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- (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.

▼ M3**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;

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- (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.

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- (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.