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STATUTORY INSTRUMENTS

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**2009 No. 3015**

**The Air Navigation Order 2009**

**PART 20**

**Fatigue of Crew and Protection of Crew from Cosmic Radiation**

**Application and interpretation of Part 20**

**144.**—(1) Subject to paragraph (2), articles 145 and 146 apply to an aircraft registered in the United Kingdom which is either—

- (a) flying on a public transport flight; or
- (b) operated by the holder of a national air operator's certificate.

(2) In this Part—

- (a) 'flight time' means all time spent by a person as a member of the crew in—
  - (i) a civil aircraft whether or not registered in the United Kingdom (other than such an aircraft which has a maximum total weight authorised of not more than 1600kg and which is not flying for the purpose of commercial air transport, public transport or aerial work); or
  - (ii) a military aircraft (other than a military aircraft which has a maximum total weight authorised of not more than 1600kg and which is flying on a military air experience flight),

while it is in flight;

- (b) 'day' means a continuous period of 24 hours beginning at midnight Co-ordinated Universal Time;
- (c) a helicopter is deemed to be in flight from the moment the helicopter first moves under its own power for the purpose of taking off until the rotors are next stopped; and
- (d) a military air experience flight is a flight by a military aircraft operated under the auspices of the Royal Air Force Air Cadet Organisation for the purpose of providing air experience to its cadets.

**Fatigue of crew – operator's responsibilities**

**145.**—(1) The operator of an aircraft to which this article applies must not cause or permit that aircraft to make a flight unless—

- (a) the operator has established a scheme for the regulation of flight times for every person flying in that aircraft as a member of its crew;
- (b) the scheme is approved by the CAA;
- (c) either—
  - (i) the scheme is incorporated in the operations manual required by article 83; or

- (ii) in any case where an operations manual is not required by that article, the scheme is incorporated in a document, a copy of which has been made available to every person flying in the aircraft as a member of its crew; and
  - (d) the operator has taken all such steps as are reasonably practicable to ensure that the provisions of the scheme will be complied with by every person flying in that aircraft as a member of its crew.
- (2) The operator of an aircraft to which this article applies must not cause or permit any person to fly as a member of its crew who the operator knows or has reason to believe is suffering from or, having regard to the circumstances of the flight to be undertaken, is likely to suffer from, such fatigue as may endanger the safety of the aircraft or of its occupants.
- (3) The operator of an aircraft to which this article applies must not cause or permit any person to fly in the aircraft as a member of its flight crew unless the operator possesses an accurate and up-to-date record for that person and for the 28 days immediately preceding the flight showing—
- (a) all flight times; and
  - (b) brief details of the nature of the functions performed in the course of those flight times.
- (4) Subject to article 159, the record referred to in paragraph (3) must be preserved by the operator of the aircraft for at least 12 months after the flight referred to in that paragraph.

#### **Fatigue of crew – responsibilities of crew**

- 146.**—(1) A person must not act as a member of the crew of an aircraft to which this article applies if they know or suspect that they are suffering from or, having regard to the circumstances of the flight to be undertaken, are likely to suffer from, such fatigue as may endanger the safety of the aircraft or of its occupants.
- (2) A person must not act as a member of the flight crew of an aircraft to which this article applies without first ensuring that the operator of the aircraft is aware of their flight times during the period of 28 days preceding the flight.

#### **Flight times – responsibilities of flight crew**

- 147.**—(1) Subject to paragraphs (2) and (3), a person must not act as a member of the flight crew of an aircraft registered in the United Kingdom if, at the beginning of the flight, the aggregate of all that person's previous flight times—
- (a) during the period of 28 consecutive days expiring at the end of the day on which the flight begins exceeds 100 hours; or
  - (b) during the period of twelve months expiring at the end of the previous month exceeds 900 hours.
- (2) This article does not apply to a flight which is a private flight in an aircraft which has a maximum total weight authorised of not more than 1600kg.
- (3) A person may act as a member of the flight crew on a private or aerial work flight where the operator does not hold a national air operator's certificate if, at the time when the flight begins, the aggregate of all the flight times of the member of the flight crew concerned since last being medically examined and found fit by a person approved by the CAA for the purpose of article 72(3) is not more than 25 hours.

#### **Protection of air crew from cosmic radiation**

- 148.**—(1) A relevant undertaking must take appropriate measures to—

- (a) assess the exposure to cosmic radiation when in flight of those air crew who are liable to be subject to cosmic radiation in excess of 1 milliSievert per year;
- (b) take into account the assessed exposure when organising work schedules with a view to reducing the doses of highly exposed air crew; and
- (c) inform the workers concerned of the health risks their work involves.

(2) A relevant undertaking must ensure that in relation to a pregnant air crew member, the conditions of exposure to cosmic radiation when she is in flight are such that the equivalent dose to the foetus will be as low as reasonably achievable and is unlikely to exceed 1 milliSievert during the remainder of the pregnancy.

(3) Nothing in paragraph (2) requires the undertaking concerned to take any action in relation to an air crew member until she has notified the undertaking in writing that she is pregnant.

(4) The definition in article 255 of ‘crew’ does not apply for the purposes of this article.

(5) In this article—

- (a) ‘air crew’ has the same meaning as in article 42 of Council Directive 96/29/ Euratom of 13th May 1996 laying down basic safety standards for the protection of the health of workers and the general public against the dangers arising from ionising radiation<sup>(1)</sup>;
- (b) ‘undertaking’ includes a natural or legal person and ‘relevant undertaking’ means an undertaking established in the United Kingdom which operates aircraft but does not include an EU-OPS operator;
- (c) ‘highly exposed air crew’ and ‘milliSievert’ have the same respective meanings as in article 42 of Council Directive 96/29/Euratom; and
- (d) ‘year’ means any period of twelve months.

### **Fatigue of crew – EU-OPS operator’s responsibilities**

**149.** The operator of an EU-OPS aeroplane must not cause or permit that aeroplane to make a commercial air transport flight unless—

- (a) the scheme for the regulation of flight times required under EU-OPS has been approved by the CAA; and
- (b) the operator has taken all such steps as are reasonably practicable to ensure that the provisions of the scheme will be complied with in relation to every person flying in that aeroplane as a member of its crew.

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(1) O.J. No. L 159, 29.6.96, p.1.