

**2000 No. 1104**

**CIVIL AVIATION**

**The Air Navigation (Cosmic Radiation) Order 2000**

<i>Made</i> - - - -	<i>19th April 2000</i>
<i>Laid before Parliament</i>	<i>20th April 2000</i>
<i>Coming into force</i>	<i>13th May 2000</i>

At the Court at Windsor Castle the 19th day of April 2000

Present,

The Queen's Most Excellent Majesty in Council

Her Majesty, in exercise of the powers conferred on Her by sections 60(1), (2)(b) and (3)(h), 102(1) and (2) of, and Part II and paragraphs 2 and 3(1) of Part III of Schedule 13 to, the Civil Aviation Act 1982<sup>(a)</sup> is pleased, by and with the advice of Her Privy Council, to order, and it is hereby ordered, as follows:

**Citation and commencement**

1. This Order may be cited as the Air Navigation (Cosmic Radiation) Order 2000 and shall come into force on 13th May 2000.

**Protection of air crew from cosmic radiation**

2. The Air Navigation (No. 2) Order 1995<sup>(b)</sup> shall be amended as follows.

3. There shall be added to the heading to Part VI “and protection of air crew from cosmic radiation”.

4. After article 65 there shall be inserted—

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

**65A.—**(1) A relevant undertaking shall 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

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(a) 1982 c. 16; to which there are amendments not relevant to this Order.

(b) S.I. 1995/1970; to which there are amendments not relevant to this Order.

(c) inform the workers concerned of the health risks their work involves.

(2) A relevant undertaking shall 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) shall require 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 118 of “crew” shall not apply for the purposes of this article.

(5) In this article and in article 67—

(a) “air crew” has the same meaning as in article 42 of Council Directive 96/29/Euratom of 13 May 1996<sup>(a)</sup>; and

(b) “undertaking” includes a natural or legal person and “relevant undertaking” means an undertaking established in the United Kingdom which operates aircraft.

(6) In this article—

(a) “highly exposed air crew” and “milliSievert” have the same respective meanings as in article 42 of Council Directive 96/29/Euratom of 13 May 1996; and

(b) “year” means any period of twelve months.”

#### **Keeping and production of records of exposure to cosmic radiation**

5.—(1) For article 67 there shall be substituted—

##### **“Keeping and production of records of exposure to cosmic radiation**

67.—(1) A relevant undertaking shall keep a record for the period and in the manner prescribed of the exposure to cosmic radiation of air crew assessed under article 65A and the names of the air crew concerned.

(2) A relevant undertaking shall, within a reasonable period after being requested to do so by an authorised person, cause to be produced to that person the record required to be kept under paragraph (1).

(3) A relevant undertaking shall, within a reasonable period after being requested to do so by a person in respect of whom a record is required to be kept under paragraph (1), supply a copy of that record to that person.”.

(2) In article 68(2), there shall be omitted sub-paragraph (i).

#### **Exemptions**

6. In article 116, after “(other than articles” insert “65A, 67,”.

#### **Penalties**

7. In Part B of Schedule 12, in the column headed “Article of Order” there shall be inserted, after “64(1)”, “65A” and “67” and in the column headed “Subject Matter” there shall be inserted, after “Crew’s obligation not to fly in dangerous state of fatigue”, “Protection of air crew from cosmic radiation” and “Keeping and production of records of exposure to cosmic radiation”.

#### **Competent authority**

8. The Secretary of State shall be the competent authority under article 15 of Council Directive 96/29/Euratom of 13 May 1996 for the purposes of article 42 of the Directive.

*A. K. Galloway*  
Clerk of the Privy Council

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

## **EXPLANATORY NOTE**

*(This note is not part of the Order)*

This Order implements article 42 of Council Directive 96/29/Euratom of 13 May 1996 which lays down basic safety standards for the protection of the health of workers and the general public against the dangers arising from ionising radiation (OJ No L 159, 29.6.96, p. 1).

The Order requires an undertaking established in the United Kingdom which operates aircraft to take appropriate measures to assess the in flight exposure to cosmic radiation of air crew who are liable to be subject to cosmic radiation in excess of 1 milliSievert per year, to take into account the assessed exposure when organising work schedules and to inform the workers concerned of the health risks their work involves.

Additional provision is made for air crew who are pregnant so that the dose to the foetus will be as low as reasonably achievable and unlikely to exceed 1 milliSievert during the remainder of the pregnancy.

The Order also requires an undertaking to keep a record of the assessed exposure to cosmic radiation, to produce that record on request to the Civil Aviation Authority and to supply a copy on request to the air crew concerned.

The Order creates criminal offences with a fine not exceeding the statutory maximum on summary conviction and on conviction on indictment to a fine or imprisonment for a term not exceeding 2 years.

For the purposes of measuring exposure to cosmic radiation pursuant to article 42 of the Directive the Order appoints the Secretary of State as the competent authority to authorise use of methods equivalent to those stipulated in the Directive.

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2. The Air Navigation (No. 2) Order 1995<sup>(b)</sup> shall be amended as follows.

3. There shall be added to the heading to Part VI “and protection of air crew from cosmic radiation”.

4. After article 65 there shall be inserted—

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

**65A.—(1)** A relevant undertaking shall 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

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(a) “air crew” has the same meaning as in article 42 of Council Directive 96/29/Euratom of 13 May 1996<sup>(a)</sup>; and

(b) “undertaking” includes a natural or legal person and “relevant undertaking” means an undertaking established in the United Kingdom which operates aircraft.

(6) In this article—

(a) “highly exposed air crew” and “milliSievert” have the same respective meanings as in article 42 of Council Directive 96/29/Euratom of 13 May 1996; and

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#### **Keeping and production of records of exposure to cosmic radiation**

5.—(1) For article 67 there shall be substituted—

##### **“Keeping and production of records of exposure to cosmic radiation**

67.—(1) A relevant undertaking shall keep a record for the period and in the manner prescribed of the exposure to cosmic radiation of air crew assessed under article 65A and the names of the air crew concerned.

(2) A relevant undertaking shall, within a reasonable period after being requested to do so by an authorised person, cause to be produced to that person the record required to be kept under paragraph (1).

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#### **Exemptions**

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#### **Competent authority**

8. The Secretary of State shall be the competent authority under article 15 of Council Directive 96/29/Euratom of 13 May 1996 for the purposes of article 42 of the Directive.

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