

## EXPLANATORY MEMORANDUM TO

### THE AIR NAVIGATION (COSMIC RADIATION: PROTECTION OF AIR CREW AND SPACE CREW AND CONSEQUENTIAL AMENDMENTS) ORDER 2019

2019 No. 1115

#### 1. Introduction

- 1.1 This explanatory memorandum has been prepared by the Department for Transport (“the Department”) and is laid before Parliament by Command of Her Majesty.
- 1.2 This memorandum contains information for the Joint Committee on Statutory Instruments (“the JCSI”).

#### 2. Purpose of the instrument

- 2.1 The instrument implements the requirements of Council Directive 2013/59/EURATOM of 5 December 2013 laying down basic safety standards for protection against the dangers arising from exposure to ionising radiation in so far as they apply to the crew of aircraft and spacecraft.

#### 3. Matters of special interest to Parliament

##### *Matters of special interest to the Joint Committee on Statutory Instruments*

- 3.1 The JCSI identified in its Tenth Report of Session 2016-17 a number of amendments that should be made to the Air Navigation Order 2016 (ANO 2016). The list of specific amendments required were addressed in the Air Navigation (Amendment) Order 2017 and none of them related to the provisions about cosmic radiation. The Department acknowledges the JCSI’s recommendation to continue to carry out a detailed review of the ANO 2016 as part of any further consolidation, and have considered this whilst creating this instrument. The Department acknowledges and will continue to consider the JCSI’s recommendation to carry out a detailed review of the ANO as part of any further consolidation, and will consider this when such opportunity may arise in future.
- 3.2 The Department will continue to consider the JCSI’s recommendation to review the ANO 2016 when such opportunity may arise in the future.

##### *Matters relevant to Standing Orders Nos. 83P and 83T of the Standing Orders of the House of Commons relating to Public Business (English Votes for English Laws)*

- 3.3 The territorial application of this instrument includes Scotland and Northern Ireland.
- 3.4 The powers under which this instrument is made cover the entire United Kingdom (see section 60 of the Civil Aviation Act 1982 and section 2(2) of the European Communities Act 1972), and the territorial application of this instrument is not limited either by the Act or by the instrument.

#### 4. Extent and Territorial Application

- 4.1 The territorial extent of this instrument is the United Kingdom.
- 4.2 The territorial application of this instrument is the United Kingdom, and to UK registered aircraft and UK launched spacecraft wherever they may be.

## **5. European Convention on Human Rights**

- 5.1 As the instrument is subject to negative resolution procedure and does not amend primary legislation, no statement is required.

## **6. Legislative Context**

- 6.1 This instrument is made under sections 60, 61 and 102 of, and paragraphs 2 and 3 of Schedule 13 to, the Civil Aviation Act 1982 and section 2(2) of, and paragraph 1A of Schedule 2 to, the European Communities Act 1982.
- 6.2 Section 60 of the Civil Aviation Act provides the power to give effect to the Convention on International Civil Aviation and to generally regulate air navigation. It empowers Her Majesty to make by Order in Council provision for regulating air navigation including (but not limited to) registration of aircraft, airworthiness, regulation of aerodromes and licensing of pilots.
- 6.3 Section 2(2) of the European Communities Act empowers Her Majesty to make by Order in Council any provision necessary for the implementation of any EU obligation of the United Kingdom.

## **7. Policy background**

### *What is being done and why?*

- 7.1 This instrument implements Council Directive 2013/59/Euratom, known as the Basic Safety Standards Directive (BSSD), in so far as it applies to basic safety standards for protection against the risks arising from air and space crew being exposed to cosmic radiation. It replaces provision currently contained in the ANO 2016 implementing Council Directive 96/29/Euratom which has been superseded by the BSSD.
- 7.2 The instrument applies to aircraft operators established or with a principal place for business in the UK. It also applies operators of spacecraft launched from the UK.
- 7.3 The instrument requires operators to assess each crew member's potential exposure to cosmic radiation. If crew will be exposed to more than 1 millisievert (mSv) of cosmic radiation in a calendar year the operator must be authorised. Crew members that will be exposed to more than 6 mSv in a calendar year ("classified crew members") should be medically assessed and be fit under the task concerned. In addition, classified crew members should have their exposure monitored and be subject to medical surveillance. Operators are required to maintain health records of classified crew members until the later of their 75<sup>th</sup> birthday or until 30 years after they were last exposed to cosmic radiation. We do not expect any aircraft crew to reach the 6 mSv threshold.
- 7.4 Operators are required to contract a suitably qualified person to review the procedures they introduce to comply with the requirements of this instrument. They are also required to provide crew members with information on their assessed exposure and, so far as reasonably possible, to minimise their exposure to cosmic radiation. In the case of pregnant crew members operators should, after receiving notification of the pregnancy, limit exposure of that crew member to no more than 1 mSv for the remainder of the pregnancy.
- 7.5 This instrument also establishes a number of offences and penalties. These penalties are in line with those applicable to existing cosmic radiation provisions in the ANO

2016 and to the equivalent offences set by the Ionising Radiation Regulations 2017 in relation to ground based workers.

- 7.6 The crew of spacecraft are covered by this instrument to meet our EU obligations. There are currently no spacecraft affected by this instrument. Relevant space operations will not take place until 2020 when safety regulations made under the Space Industry Act 2018 are expected to come into force. It is expected that these regulations will replace the requirement of this instrument in so far as space craft are concerned.

## **8. European Union (Withdrawal) Act/Withdrawal of the United Kingdom from the European Union**

- 8.1 This instrument does not relate to withdrawal from the European Union / trigger the statement requirements under the European Union (Withdrawal) Act.

## **9. Consolidation**

- 9.1 This removes material from, and so simplifies, the ANO 2016. Therefore a consolidation at this stage is not appropriate but the Department will continue to consider the JCSI's recommendation to review the ANO 2016 when necessary.

## **10. Consultation outcome**

- 10.1 A consultation has not been undertaken. The requirements of the instrument are in line with the requirement of both the Council Directive 2013/59/Euratom and Ionising Radiation Regulations 2017 which implement the requirements of the Directive in respect of ground based workers. As the 6 mSv threshold should not be exceeded there is no significant impact on business.

## **11. Guidance**

- 11.1 The CAA is expected to produce guidance on this instrument in due course.

## **12. Impact**

- 12.1 There is no, or no significant, impact on business, charities or voluntary bodies.  
12.2 There is no, or no significant, impact on the public sector.  
12.3 An Impact Assessment has not been prepared for this instrument because there is no significant impact on business, charities or voluntary bodies, or the public sector.

## **13. Regulating small business**

- 13.1 The legislation applies to activities that are undertaken by small businesses.  
13.2 The measures will have negligible impact on business, so no mitigations are therefore proposed.

## **14. Monitoring & review**

- 14.1 The approach to monitoring of this legislation is handled by both the CAA and the Department. The CAA monitors the UK aviation industry to ensure compliance with the standards which are set out in air navigation orders and related EU legislation. The Department will continue to review the need to make further amendments to the ANO 2016 as necessary.

14.2 A statutory review provision is included in the instrument which requires the Secretary of State to review its operation and effect and publish a report within five years after it comes into force and within every five years after that. Following a review it will fall to the Secretary of State to consider whether it should remain as it is, or be revoked or be amended.

**15. Contact**

15.1 At the Department for Transport, Duncan Nicholls, telephone: 07825 263 416 or email: duncan.nicholls@dft.gov.uk or Mike Alcock, telephone: 07824 857522 or email: mike.alcock@dft.gov.uk can be contacted with any queries regarding the instrument.

15.2 Catherine Adams at the Department for Transport can confirm that this Explanatory Memorandum meets the required standard.

15.3 The Baroness Vere of Norbiton at the Department for Transport can confirm that this Explanatory Memorandum meets the required standard.