

**2022 No.**

**CIVIL AVIATION**

**CLIMATE CHANGE**

**The Air Navigation (Carbon Offsetting and Reduction Scheme for International Aviation) (Amendment) Order 2022**

*Made* - - - - **\*\*\***  
*Laid before Parliament* **\*\*\***  
*Coming into force* - - **\*\*\* November 2022**

At the Court at Buckingham Palace, the **\*\*\*** day of **\*\*\***

Present,

The Queen's Most Excellent Majesty in Council

This Order is made in exercise of the powers conferred by sections 60(2)(a), and 61 of, and Schedule 13 to, the Civil Aviation Act 1982(a).

Her Majesty, by and with the advice of Her Privy Council, orders as follows:

**Citation and commencement**

1. This Order may be cited as the Air Navigation (Carbon Offsetting and Reduction Scheme for International Aviation) (Amendment) Order 2022 and comes into force on XX November 2022.

**Extent**

2. This Order extends to the whole of the United Kingdom.

**Amendment of the Air Navigation (Carbon Offsetting and Reduction Scheme for International Aviation) Order 2021**

3. The Air Navigation (Carbon Offsetting and Reduction Scheme for International Aviation) Order 2021(a) is amended as follows.

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(a) 1982 c. 16. Section 60 was amended by the Aviation and Maritime Security Act 1990 (c. 31), sections 47 and 53(2) and Schedule 4, the Airports (Northern Ireland) Order 1994 (S.I. 1994/426), article 71(4) and Schedule 10, the Statute Law (Repeals) Act 1995 (c. 44), section 1(1) and Schedule 1, Part V, the Airports Act 1986 (c. 31) section 83(5) and Schedule 6, Part II and the Civil Aviation Act 2006 (c. 34), section 8(1) and (5). Section 61 was amended by the Airports Act 1986 (c. 31), section 83(5) and Schedule 6, Part II and the Aviation (Offences) Act 2003 (c. 19), section 2. Section 102 was amended by the Air Travel Organisers' Licensing Act 2017 (c. 33), section 2(3). Schedule 13 was amended by the Transport Act 2000 (c. 38), section 36 and Schedule 4, paragraphs 1 and 17.

## **General**

4. In articles 4, 24, 25, 28, 37, 43, 47 to 50, 55, 57, 58, 60 to 62, 65 and 68 for “;” in each place it occurs, substitute “,”.

## **Amendment of article 3**

5. In article 3(1) (application) for “whom” substitute “which”.

## **Amendment of article 4**

6.—(1) Article 4 (interpretation) is amended as follows.

(2) Omit the entries for “ACARS”, “Administrative partnership” and “Pathway”.

(3) In the entry for “AFBO”, for “AFBO” substitute “AFBR”.

(4) In the entries for “ISO 14064-3:2006”, “ISO 14065:2013”, “ISO 14066:2011” and “ISO/IEC 17011:2004” for each of the final full stops substitute commas.

(5) For the entries for “Verification of report”, “Verification body”, “Verification team” and “Verification report” substitute—

““Verification body” means a person that performs the verification of an Emissions Report, as an accredited independent third party,

“Verification of report” means an independent, systematic and sufficiently documented evaluation process of an Emissions Report,

“Verification Report” means a document, drafted by the verification body, containing the verification statement and required supporting information set out in paragraph 3(22) to (26) of Schedule 6, and

“Verification team” means a group of verifiers, or a single verifier that also qualifies as a team leader, belonging to a verification body conducting the verification of an Emissions Report, whether or not supported by technical experts.”

## **Amendment of article 9**

7. In article 9(3)(b) (attribution of international flights to an aeroplane operator) for “air operator certificate” substitute “Air Operator Certificate”.

## **Amendment of article 10**

8. In article 10 (meaning of Regulator) for “who”, in both places it occurs, substitute “which”.

## **Amendment of article 16**

9.—(1) Article 16 (change in aeroplane operator’s attribution to a State) is amended as follows.

(2) In paragraph (1) for “air operator certificate” substitute “Air Operator Certificate”.

(3) In paragraph (3) for “can” substitute “may”.

## **Amendment of article 22**

10.—(1) Article 22 (monitoring of CO<sub>2</sub> emissions: eligibility of monitoring methods) is amended as follows.

(2) In paragraphs (7), (8), (9) and (10), for “between State Pairs defined in the ICAO document entitled “CORSIA States for Chapter 3 State Pairs””, in each place it occurs, substitute “subject to offsetting requirements, under article 41A,”.

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(a) S.I. 2021/534.

(3) At the end of paragraph (12) add a full stop.

**Amendment of article 24**

11. In article 24(3) (issue of Emissions Monitoring Plans) for “Emissions monitoring Plan” substitute “Emissions Monitoring Plan”.

**Amendment of article 25**

12. In article 25(3) (refusal of application for Emissions Monitoring Plans) for “who” substitute “which”.

**Amendment of article 26**

13.—(1) Article 26 (modification of the Emissions Monitoring Plan) is amended as follows.

(2) In paragraph (4)(d) for “verification report” substitute “Verification Report”.

(3) After paragraph (5) add—

“(6) A Regulator may, by giving notice to an aeroplane operator, vary the aeroplane operator’s Emissions Monitoring Plan, including by the modification, addition or removal of a condition, if the Regulator considers it necessary to do so in order to give proper effect to this Order.”.

**Amendment of article 27**

14. In article 27 (approval of modification of the Emissions Monitoring Plan) for paragraph (1) substitute—

“(1) A Regulator may allow an aeroplane operator to notify modifications of the Emissions Monitoring Plan that are not significant, without such modifications being the subject of the Regulator’s approval.”.

**Amendment of article 30**

15. Omit article 30 (calculation of emissions from the use of CORSIA eligible fuels).

**Amendment of article 32**

16. In article 32(5) (reporting of CORSIA eligible fuels), for “30” substitute “41C”.

**Amendment of article 33**

17.—(1) Article 33(2) (reporting to ICAO) is amended as follows.

(2) For “A Regulator” substitute “The Regulator”.

(3) For “reported information deemed confidential” substitute “reported information deemed confidential in accordance with article 31(6) and (8)”.

**Amendment of article 37**

18.—(1) Article 37 (data gaps) is amended as follows.

(2) In paragraph (4) for “between State Pairs defined in the ICAO document entitled “CORSIA States for Chapter 3 State Pairs””, in each place it occurs, substitute “subject to offsetting requirements, under article 41A,”.

(3) Omit paragraph (7).

### **Amendment of article 39**

19. In article 39(2) (reporting on improvement to the monitoring method) for “verification report”, in both places it occurs, substitute “Verification Report”.

### **Amendment of article 41**

20. In article 41(1) (electronic data exchange and use of automated systems) for “verification reports” substitute “Verification Reports”.

### **Insertion of Part 3A**

21. After article 41 (electronic data exchange and use of automated systems) insert—

## **“PART 3A**

**CO<sub>2</sub> offsetting requirements from international flights and emissions reductions from the use of CORSIA eligible fuels**

### **CHAPTER 1**

#### **Offsetting**

#### **Applicability of CO<sub>2</sub> offsetting requirements**

41A.—(1) For the period of 1st January 2021 to 31st December 2021, the offsetting requirements of this Part apply to an aeroplane operator with international flights between States as defined in the ICAO document entitled “CORSIA States for Chapter 3 State Pairs”(a).

(2) This Part does not apply to a new entrant aeroplane operator for three years starting in the year when it meets the requirements in articles 21(1) and 3(2), or until its annual CO<sub>2</sub> emissions exceed 0.1 per cent of total CO<sub>2</sub> emissions from international flights in 2020, whichever occurs earlier.

(3) The Regulator must calculate the aeroplane operator’s annual offsetting requirements based on the data reported in accordance with Part 3, the applicability requirements in this article, and the application of articles 41B and 41C, where applicable.

#### **CO<sub>2</sub> offsetting requirements**

41B.—(1) The Regulator must calculate, for each of the aeroplane operators administered by it, the amount of CO<sub>2</sub> emissions required to be offset for the period from 1st January 2021 to 31st December 2021 prior to consideration of the CORSIA eligible fuels, as follows—

$$OR_y = OE * SGF_y$$

where—

OR<sub>y</sub> = Aeroplane operator’s offsetting requirements in the given year y,

OE = Aeroplane operator’s CO<sub>2</sub> emissions covered by article 41A in the given year y or aeroplane operator’s CO<sub>2</sub> emissions covered by article 41A in 2020, depending upon the

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(a) “CORSIA States for Chapter 3 State Pairs” is available from the ICAO website at [www.icao.int](http://www.icao.int). For a hard copy contact the ICAO E-Commerce and Publications Sales Unit at International Civil Aviation Organisation (ICAO), 999 Robert-Bourassa Boulevard, Montreal, Quebec H3C 5H7, Canada (telephone +1 514-954-8219 and e-mail [sales@icao.int](mailto:sales@icao.int)).

option selected by the Regulator which will be applied to all aeroplane operators that are administered by it for the purposes of this Order, and

SGF<sub>y</sub> = Sector's Growth Factor(a).

(2) The Regulator must use the Sector Growth Factor applicable for a given year (SGF<sub>y</sub>)(b).

(3) The Regulator must, upon calculating the offsetting requirements in a given year (OR<sub>y</sub>) of each of the aeroplane operators administered by it for the purposes of this Order, inform the aeroplane operator of its offsetting requirements according to the timeline set out in Schedule 1.

### Emissions reductions from the use of CORSIA eligible fuels

**41C.**—(1) An aeroplane operator that intends to claim for emissions reductions from the use of CORSIA eligible fuels in a given year must compute those emissions reductions as follows—

$$ER_y = FCF * \left[ \sum_f MS_{f,y} * \left( 1 - \frac{LS_f}{LC} \right) \right] \quad (c)$$

where—

ER<sub>y</sub> = Emissions reductions from the use of CORSIA eligible fuels in the given year y, in tonnes,

FCF = Fuel conversion factor,

MS<sub>f,y</sub> = Total mass of a neat CORSIA eligible fuel claimed in the given year y, in tonnes, as described in and required by Field 12(b) in Table 1 of Schedule 5,

LS<sub>f</sub> = Life cycle emissions value for a CORSIA eligible fuel, in gCO<sub>2</sub>e/MJ, and

LC = Baseline life cycle emissions values for aviation fuel, equal to 89 gCO<sub>2</sub>e/MJ for jet fuel and equal to 95 gCO<sub>2</sub>e/MJ for AvGas.

(2) The fuel conversion factor referred to in paragraph (1) is equal to—

- (a) 3.16 (in kg CO<sub>2</sub>/kg fuel) for Jet-A fuel/Jet A1 fuel,
- (b) 3.10 (in kg CO<sub>2</sub>/kg fuel) for AvGas, or
- (c) 3.10 (in kg CO<sub>2</sub>/kg fuel) for Jet-B fuel.

(3) If a default life cycle emissions value is used, the aeroplane operator must use the ICAO document entitled “CORSIA Default Life Cycle Emissions Values for CORSIA Eligible Fuels”(d) for the calculation in paragraph (1).

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- (a) The Sector's Growth Factor applicable for a given year (SGF<sub>y</sub>) is provided in the ICAO document entitled “CORSIA Annual Sector's Growth Factor (SGF)” that is available from the ICAO CORSIA website, and is calculated as (SE<sub>y</sub>-SE<sub>B,y</sub>)/SE<sub>y</sub>, where SE<sub>y</sub> = Total sectoral CO<sub>2</sub> emissions covered by article 41A in the given year y and SE<sub>B,y</sub> = Average of total sectoral CO<sub>2</sub> emissions during 2019 and 2020 covered by article 41A in the given year y. Sectoral emissions in a given year (SE<sub>y</sub>) do not include the CO<sub>2</sub> emissions from new entrants during their exception period, as defined in article 41A(2) and (3). As the States which form the “CORSIA States for Chapter 3 State Pairs”, as defined by article 41A, change over time, the average of total sectoral CO<sub>2</sub> emissions during 2019 and 2020 covered by these State pairs in the given year y (SE<sub>B,y</sub>) will be recalculated.
  - (b) The Sector Growth Factor applicable for a given year (SGF<sub>y</sub>) is provided in the ICAO document entitled “CORSIA Annual Sector's Growth Factor (SGF)” which is produced in accordance with the timescale set out in Schedule 1 and is available from the ICAO website at www.icao.int. For a hard copy contact the ICAO E-Commerce and Publications Sales Unit at International Civil Aviation Organisation (ICAO), 999 Robert-Bourassa Boulevard, Montreal, Quebec H3C 5H7, Canada (telephone +1 514-954-8219 and e-mail sales@icao.int).
  - (c) The ratio (1-LS<sub>f</sub>/LC) is also referred to as the emissions reduction factor (ERF<sub>f</sub>) of a CORSIA eligible fuel.
  - (d) “CORSIA Default Life Cycle Emissions Values for CORSIA Eligible Fuels” is available from the ICAO website at www.icao.int. For a hard copy contact the ICAO E-Commerce and Publications Sales Unit at International Civil Aviation

(4) If an actual life cycle emissions value is used, an approved Sustainability Certification Scheme must ensure that the methodology, set out in the ICAO document entitled “CORSIA Methodology for Calculating Actual Life Cycle Emissions Values”(a), has been applied correctly.”.

#### **Amendment of article 42**

22. In article 42(2)(c) (charges) for “emissions monitoring plan” substitute “Emissions Monitoring Plan”.

#### **Amendment of article 48**

23.—(1) Article 48 (warrants) is amended as follows.

(2) In paragraph (1) for “to designate” substitute “or”.

(3) In paragraph (4)(a), at the beginning, insert “in England and Wales, ”.

#### **Amendment of article 52**

24. In article 52(2)(b) (enforcement notices) for “emissions monitoring plan” substitute “Emissions Monitoring Plan”.

#### **Amendment of article 54**

25. In article 54 (penalty notices: supplementary) omit paragraph (3).

#### **Amendment of article 56**

26. In article 56(1) (failure to comply with condition of Emissions Monitoring Plan) for “aircraft operator”, in both places it occurs, substitute “aeroplane operator”.

#### **Amendment of article 65**

27.—(1) Article 65(2) (right of appeal) is amended as follows.

(2) In sub-paragraph (e), for “26(2)” substitute “26(6)”.

(3) After sub-paragraph (e), insert—

“(ea) Article 27(2) (approval of modification of the Emissions Monitoring Plan),”.

(4) In sub-paragraphs (g) and (l) for “Articles” substitute “Article”.

(5) After sub-paragraph (i), insert—

“(ia) Article 41B(5) (CO<sub>2</sub> offsetting requirements),”.

#### **Amendment of article 66**

28. In article 66(2) (appeal body) and the associated footnote, for “Planning Appeals Commission” substitute “Planning Appeals Commissions (Northern Ireland)”.

#### **Amendment of article 67**

29. For article 67(2)(c) (effect of appeals), substitute—

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Organisation (ICAO), 999 Robert-Bourassa Boulevard, Montreal, Quebec H3C 5H7, Canada (telephone +1 514-954-8219 and e-mail sales@icao.int).

- (a) “CORSIA Methodology for Calculating Actual Life Cycle Emissions Values” is available from the ICAO website at [www.icao.int](http://www.icao.int). For a hard copy contact the ICAO E-Commerce and Publications Sales Unit at International Civil Aviation Organisation (ICAO), 999 Robert-Bourassa Boulevard, Montreal, Quebec H3C 5H7, Canada (telephone +1 514-954-8219 and e-mail sales@icao.int).

“(c) a notice under—

- (i) article 26(6) (modification of an Emissions Monitoring Plan),
- (ii) article 27(2) (approval of modification of the Emissions Monitoring Plan), or
- (iii) article 52(1) (enforcement notices).”.

#### **Amendment of Schedule 1**

**30.**—(1) Schedule 1 (administrative procedures) is amended as follows.

(2) In paragraph 1(2) to (6), for “and Regulators”, in each place it occurs, substitute “, Regulators and the Secretary of State”.

(3) In Table 1 (details of compliance timeline for 2021-2023 period), in the entry for “30th November 2022”, in the second column, after the words ending with “article 11(3)”, insert new paragraph “The Regulator must calculate and inform aeroplane operators of their offsetting requirements for 2021 in accordance with articles 41A and 41B.”.

#### **Amendment of Schedule 2**

**31.**—(1) Paragraph 7 of Schedule 2 is amended as follows.

(2) In sub-paragraph (5) omit footnote (a).

(3) After sub-paragraph (6) add—

“(7) Average Fuel Burn Ratio (AFBR) based on all flights for a reporting year must be rounded to at least three decimal places.”.

#### **Amendment of Schedule 4**

**32.**—(1) Schedule 4 (emissions monitoring plans) is amended as follows.

(2) In paragraphs (2) and (3) for “air operator certificate”, in the three places it occurs, substitute “Air Operator Certificate”.

(3) In paragraph (2)(d) for “is attributed” substitute “are attributed”.

(4) In paragraph (4)—

(a) in sub-paragraph (3)(a)(v) for “.” Substitute “,”,

(b) in sub-paragraph (5) for “other than between State Pairs defined in the ICAO document entitled “CORSIA States for Chapter 3 State Pairs”” substitute “which are not subject to offsetting requirements under article 41A”,

(c) in sub-paragraph (6)(a) for “between State Pairs defined in the ICAO document entitled “CORSIA States for Chapter 3 State Pairs”” substitute “which are subject to offsetting requirements, under article 41A,”, and

(d) in sub-paragraph (8) for “are flights other than between State Pairs defined in the ICAO document entitled “CORSIA States for Chapter 3 State Pairs”” substitute “not subject to offsetting requirements under article 41A”.

#### **Amendment of Schedule 5**

**33.**—(1) Schedule 5 (reporting) is amended as follows.

(2) In Table 1 (content of aeroplane operator Emission Report)—

(a) in the entry for “Field 11”, in point (b) in the third column, for “, other than between State Pairs defined in the ICAO document entitled “CORSIA States for Chapter 3 State Pairs”” substitute “not subject to offsetting requirements under article 41A”, and

(b) in the entry for “Field 13”—

- (i) in point (b) in the third column, for “between State Pairs defined in the ICAO document entitled “CORSIA States for Chapter 3 State Pairs”” substitute “subject to offsetting requirements, under article 41A,”, and
  - (ii) in point (c) in the third column, for “other than between State Pairs defined in the ICAO document entitled “CORSIA States for Chapter 3 State Pairs”” substitute “that are not subject to offsetting requirements under article 41A”.
- (3) In Table 5 (emissions report from the secretary of state to ICAO annually from and including 2021)—
- (a) in the entry for “Field 1”—
    - (i) in point (a) in the third column, for “defined in the ICAO document entitled “CORSIA States for Chapter 3 State Pairs”” substitute “subject to offsetting requirements, under article 41A,”, and
    - (ii) in point (b) in the third column, for “other than those defined in the ICAO document entitled “CORSIA States for Chapter 3 State Pairs”,” substitute “not subject to offsetting requirements under article 41A”,
  - (b) in the entry for “Field 3” in the second column, for “defined in the ICAO document entitled “CORSIA States for Chapter 3 State Pairs”” substitute “subject to offsetting requirements, under article 41A,”, and
  - (c) in the entry for “Field 4” in the second column, for “other than those defined in the ICAO document entitled “CORSIA States for Chapter 3 State Pairs”” substitute “not subject to offsetting requirements under article 41A”.

#### **Amendment of Schedule 6**

**34.**—(1) Schedule 6 (verification) is amended as follows.

(2) Paragraph 2 is amended as follows—

- (a) in sub-paragraph (6) for “take over” substitute “take over responsibility for”,
- (b) in sub-paragraph (8) for “(11) to (16)” substitute “(10) to (13)”,
- (c) in sub-paragraph (9) for “(11)” substitute “(10)”,
- (d) after sub-paragraph (13) insert—

“(13A) When conducting the verification of an Emissions Report, paragraphs (12)(a) to (i) apply.”.

(3) In paragraph 3(23), for “sub-paragraphs (5) to (7)” substitute “sub-paragraph (4)”.

#### **Amendment of Schedule 7**

**35.** In Schedule 7 (appeals to Scottish Land Court) in paragraph 2(1) for “date of the decision” substitute “date of the relevant notice for appeal under article 65(1)(b) or date of deemed refusal”.

#### **Amendment of Schedule 8**

**36.** Schedule 8 (appeals to Planning Appeals Commissions (Northern Ireland)) in paragraph 2 for “date on which the decision of the Regulator takes effect” substitute “date of the relevant notice for appeal under article 65(1)(b) or date of deemed refusal”.

*Richard Tilbrook*  
Clerk of the Privy Council



## EXPLANATORY NOTE

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

This Order implements the offsetting requirements for the 2021 scheme year of the Carbon Offsetting and Reduction Scheme for International Civil Aviation (CORSA) in Volume IV of Annex 16 to the Convention on International Civil Aviation adopted by the Council of the International Civil Aviation Organisation on 27 June 2018.

This Order extends to the whole of the United Kingdom.

The following amendments are made to incorporate the offsetting requirements into the Air Navigation (Carbon Offsetting and Reduction Scheme for International Aviation) Order 2021 (“the CORSA Order”, S.I. 2021/534).

Article 6 amends the definitions in the CORSA Order.

Articles 10, 18, 32 and 33 amend the references to flights that are subject to offsetting in the CORSA Order.

Article 13(3) enables a Regulator to amend an Emissions Monitoring Plan, by notifying the aeroplane operator, where the Regulator considers it necessary following a change to the CORSA Order. Articles 27(2) and 29 provide aeroplane operators with an appeal process.

Article 21 inserts Part 3A to the CORSA Order to incorporate the CO<sub>2</sub> offsetting requirements from international flights and emissions reductions from the use of CORSA eligible fuels.

Article 30 amends Schedule 1 to the CORSA Order to incorporate timelines associated with the offsetting requirements.

Article 31 amends Schedule 2 to the CORSA Order to clarify the rounding requirements specific to the Average Fuel Burn Ratio (AFBR).

Article 32 amends Schedule 4 to the CORSA Order, which covers the Emissions Monitoring Plan requirements, to amend the references to flights that are and are not subject to offsetting in the CORSA Order.

Article 33 amends Schedule 5 to the CORSA Order to incorporate offsetting provisions into the CORSA reporting requirements.

Article 34 amends Schedule 6 to the CORSA Order to incorporate offsetting provisions into the CORSA verification requirements.

A full impact assessment has not been produced for this Order as no significant impact on the private or voluntary sectors is foreseen. An Explanatory Memorandum has been published alongside this Order on the UK legislation website, [www.legislation.gov.uk](http://www.legislation.gov.uk).