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ENVIRONMENT

# ICAO CAPACITY BUILDING ACTIVITIES ACT-CORSIA

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ICAO ENV Officer – ICAO EUR/NAT Office

CORSIA



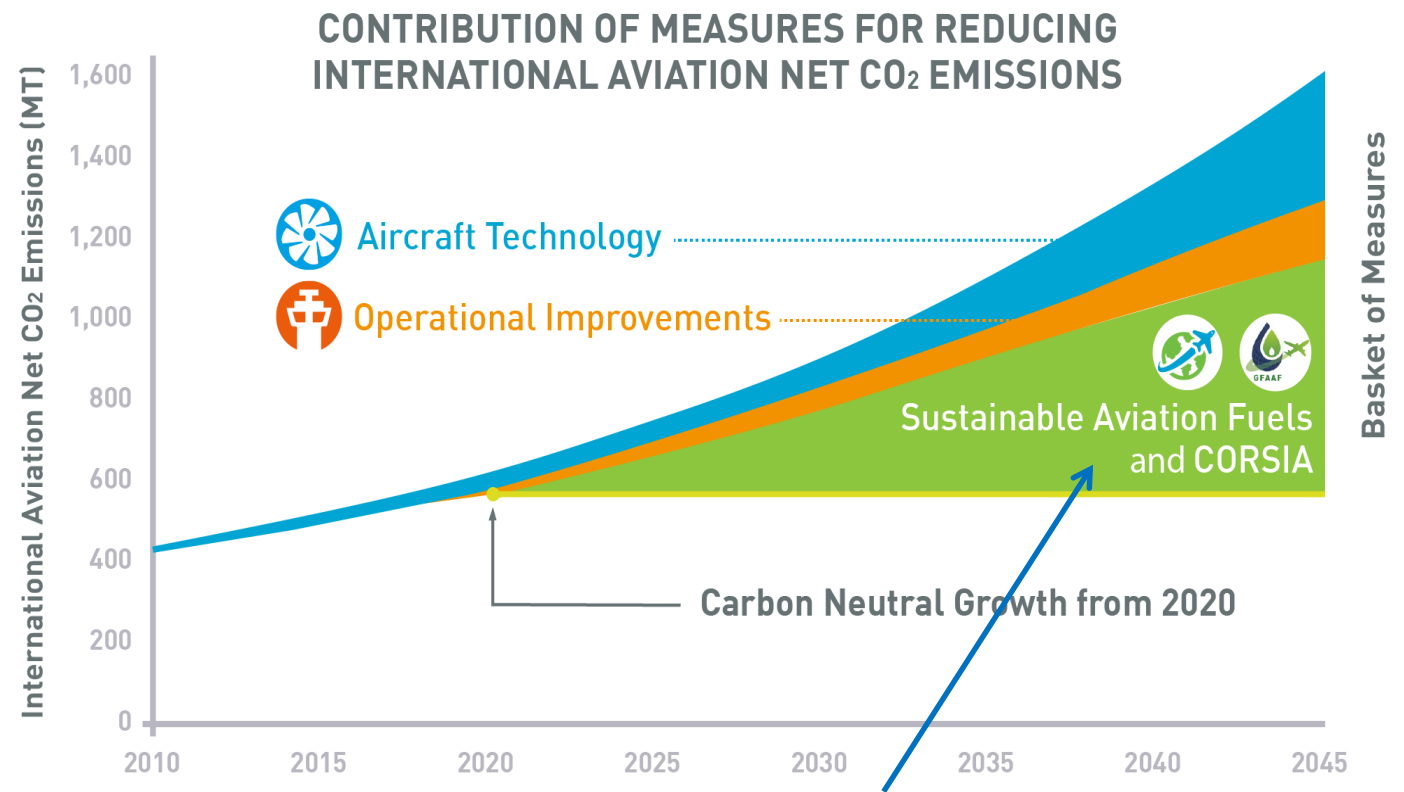


## The first global market-based measure for any industry sector

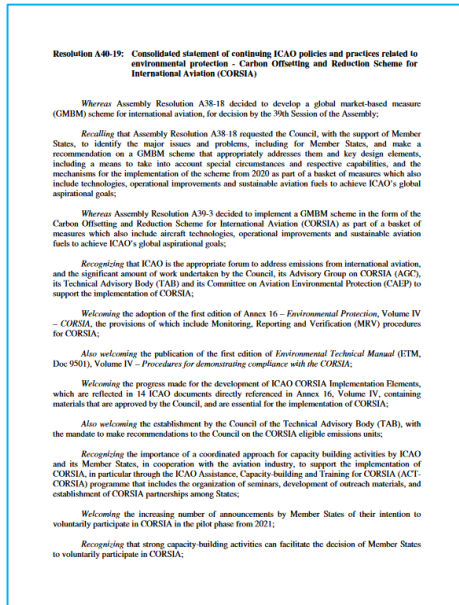
To achieve ICAO's global aspirational goal of carbon neutral growth from 2020 (CNG 2020), CORSIA is

one complementary element in the basket of measures to:

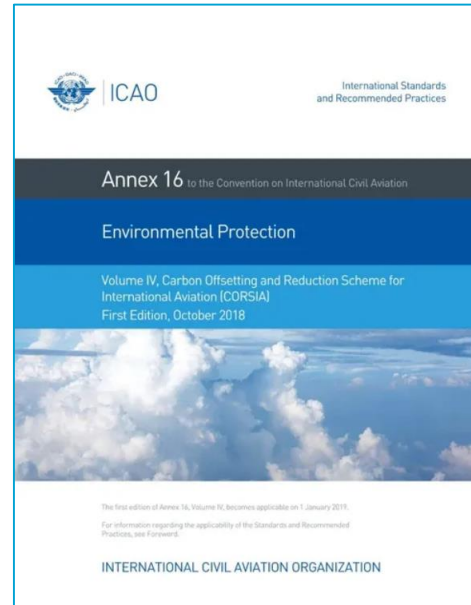
- aircraft technology
- operational improvements
- sustainable aviation fuels



*CORSIA addresses the remaining "emissions gap" to achieve CNG2020*



Assembly Resolution  
A40-19



Annex 16, Volume IV  
(CORSIA SARPs)



Doc 9501 (ETM), Vol.  
IV (CORSIA)  
(2<sup>nd</sup> edition)

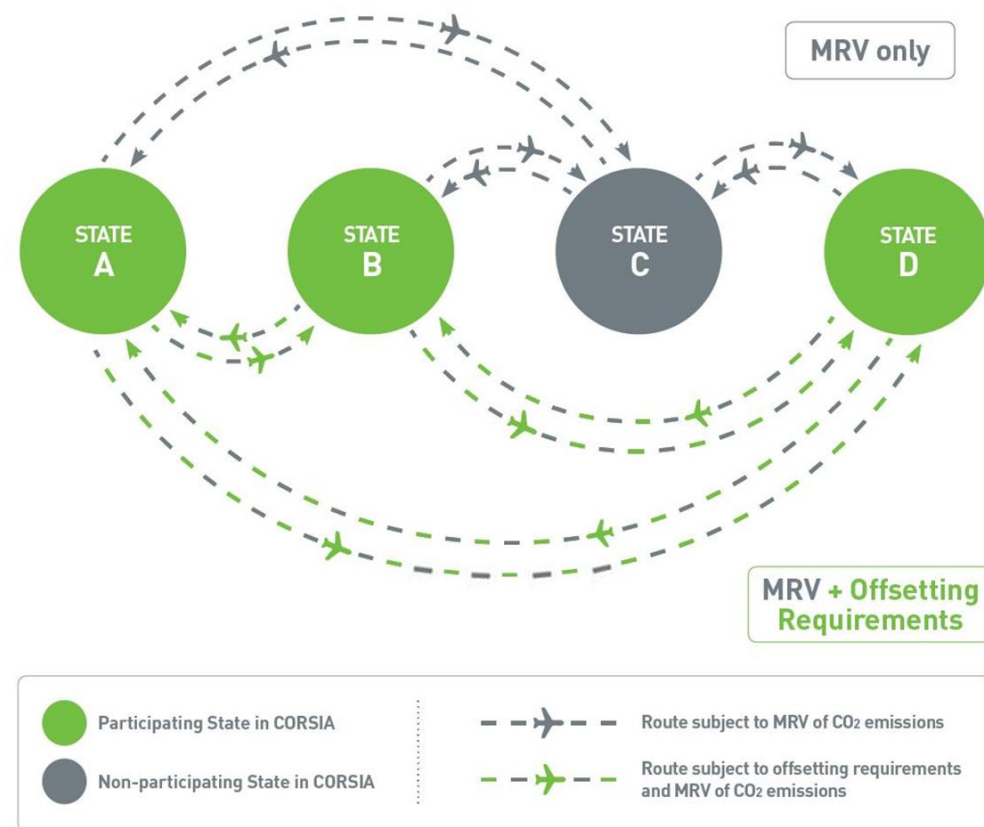


CORSIA Implementation  
Elements  
(ICAO documents)

- **Monitoring, Reporting and Verification (MRV) is the backbone for the successful implementation of CORSIA, which requires:**
  - Reliable information on CO<sub>2</sub> emissions, and on compliance with offsetting requirements

ALL ICAO MEMBER STATES with aeroplane operators conducting international flights are required to monitor, report and verify CO<sub>2</sub> emissions from these flights every year from 2019, independent of their participation in CORSIA.

ICAO MEMBER STATES PARTICIPATING IN CORSIA need to ensure that their aeroplane operators comply with the CORSIA offsetting requirements every three years (starting in 2021), in addition to annual CO<sub>2</sub> MRV.







ICAO Assistance, Capacity-building and Training on CORSIA (ACT-CORSIA):

ACT CORSIA is a **coordinated approach** to harmonize and bring together all relevant actions and promote **coherence to capacity building efforts for CORSIA implementation** – also enabling the **monitoring of global progress / transparency**

CORSIA Buddy Partnerships

Seminars, Online Tutorials

Brochures, Leaflets, Videos

Frequently Asked Questions

CORSIA Monthly Newsletters



[www.icao.int.corsia](http://www.icao.int.corsia)



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## ICAO ACT CORSIA Buddy Partnerships

- Buddy Partnerships – cornerstone of ACT-CORSIA to support States to prepare for CORSIA implementation
- No expertise or resources for training available at the start of CORSIA
- Technical experts from supporting States voluntarily helping support-requesting States, by providing on-site training and closely monitoring the required actions
- Considerations on languages, time-zones/locations, existing relations



Different phases with specific focus areas in order to support necessary actions by States with different timelines

**Phase I (Sep 2018 – Apr 2019): 15 supporting States and 98 requesting States**

- Development and approval of Emissions Monitoring Plans
- Establishment of national/regional regulatory frameworks

**Phase II (May 2019 – Apr 2020): 16 supporting States and 114 requesting States**

- CO2 Emissions reporting and verification

**Phase III (Apr 2020 - 2022): 16 supporting States and 118 requesting States**

- Use of the CORSIA Central Registry (CCR)

The focus areas of each Phase can form the basis for checklist to assess the progress made and milestones achieved in order to determine the need for a tailored approach to training.

ACT-CORSIA Phase III Assistance, Capacity-building and Training on CORSIA	
<b>AUSTRALIA</b>	<b>KENYA</b>
1. BRUNEI DARUSSALAM	1. RWANDA
2. INDONESIA	2. SEYCHELLES
3. NAURU	3. SOUTH SUDAN
4. PAPUA NEW GUINEA	4. UGANDA
5. SRI LANKA	
6. THAILAND	<b>NEW ZEALAND</b>
<b>BRAZIL</b>	1. FIJI
1. ANGOLA	2. SAMOA
2. CABO VERDE	3. SOLOMON ISLANDS
3. MOZAMBIQUE	4. VANUATU
4. SAO TOME AND PRINCE	<b>NIGERIA</b>
<b>CANADA (Facilitated by CAS506)</b>	1. GAMBIA
1. ANTIGUA AND BARBUDA	2. GHANA
2. BARBADOS	3. LIBERIA
3. GUYANA	4. SIERRA LEONE
4. HAITI	5. SUDAN
5. JAMAICA	<b>REPUBLIC OF KOREA</b>
6. SURINAME	1. LAO PEOPLE'S D. R.
7. TRINIDAD AND TOBAGO	2. MONGOLIA
<b>CANADA / FRANCE</b>	3. PAKISTAN
1. BENIN	4. PHILIPPINES
2. BURKINA FASO	5. VIETNAM
3. BURUNDI	<b>QATAR</b>
4. CAMEROON	1. SAUDI ARABIA
5. CENTRAL AFRICAAN REPUBLIC	2. IRAQ
6. CHAD	3. KUWAIT
7. COMOROS	4. KUWAIT
8. CONGO	5. LIBIA
9. DJIBOUTI	6. OMAN
10. D. R. OF CONGO	<b>SINGAPORE</b>
11. GABON	1. COOK ISLANDS
12. GUINEA	2. KIRIBATI
13. MADAGASCAR	3. MARSHALL ISLANDS
14. MALI	4. PALAU
15. MAURITANIA	5. TONGA
16. MAURITIUS	6. TUVALU
17. NIGER	<b>SOUTH AFRICA</b>
18. SENEGAL	1. BOTSWANA
19. TOGO	2. ESWATINI
<b>FRANCE (* Facilitated by ACAD)</b>	3. LESOTHO
1. ALGERIA *	4. MALAWI
2. COTE D'IVOIRE	5. NAMIBIA
3. MOROCCO *	6. ZAMBIA
4. SAUDI ARABIA *	7. ZIMBABWE
5. TUNISIA	<b>SPAIN (* Facilitated by COCESNA)</b>
<b>GERMANY</b>	1. BELIZE *
1. ALBANIA	2. BOLIVIA
2. ARMENIA	3. COSTA RICA *
3. AZERBAIJAN	4. CUBA
4. BELARUS	5. EL SALVADOR *
5. GEORGIA	6. EQUATORIAL GUINEA
6. KAZAKHSTAN	7. GUATEMALA *
7. NORTH MACEDONIA	8. HONDURAS *
8. REPUBLIC OF MOLDOVA	9. MEXICO
9. SERBIA	10. NICARAGUA *
10. TAJIKISTAN	11. PERU
11. TURKMENISTAN	12. URUGUAY
<b>ITALY</b>	<b>USA</b>
1. BAHAMAS	1. ARGENTINA
2. COLOMBIA	2. DOMINICAN REPUBLIC
3. ERITREA	3. ECUADOR
4. ETHIOPIA	4. PANAMA
5. PARAGUAY	
6. SOMALIA	
7. UNITED REPUBLIC OF TANZANIA	
<b>JAPAN</b>	
1. AFGHANISTAN	
2. BANGLADESH	
3. BHUTAN	
4. CAMBODIA	
5. MALAYSIA	
6. MYANMAR	

16 SUPPORTING STATES  
118 REQUESTING STATES



## CORSIA website provides access to all CORSIA-related documents

- Annex 16, Volume IV
- ETM and templates (in Excel)
- 2021 version of the CERT
- ACT-CORSIA information
- 2022 CORSIA periodic review
- CORSIA Eligible Fuels

[www.icao.int/corsia](http://www.icao.int/corsia)

## Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA)

CORSIA News ([click here](#) to consult the complete list)

November 2021

Total international aviation CO<sub>2</sub> emissions in 2020 have been approved by the ICAO Council and are available [here](#).

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### COVID-19 impacts and 2022 CORSIA periodic review

#### CORSIA»IMPLEMENTATION

- Assembly Resolution A40-19

(EN) (FR) (SP) (RU) (AR) (ZH)

- Reservation to Resolution A40-19
- SARPs - Annex 16 Volume IV
- Environmental Technical Manual - Volume IV
  - » Templates
- ICAO CORSIA Implementation Elements
  - » CORSIA States for Chapter 3 State Pairs
  - » ICAO CORSIA CO<sub>2</sub> Estimation and Reporting Tool (CERT)
  - » CORSIA Eligible Fuels
  - » CORSIA Eligible Emissions Units
  - » CORSIA Central Registry (CCR)

Additional Material for CORSIA Implementation

Status of CORSIA Implementation



### CORSIA Newsletter

#### ACT » CORSIA

- CORSIA Buddy Partnerships
- Model Regulations
- Frequently Asked Questions
- Brochure and Leaflets
- Videos
- Seminars
- Online Tutorials
- Background Information







Afghanistan	El Salvador	Kenya	Republic of Korea
Albania	Equatorial Guinea	Latvia	Republic of Moldova
Armenia	Estonia	Lithuania	Romania
Australia	Finland	Luxembourg	Rwanda
Austria	France	Madagascar	San Marino
Azerbaijan	Gabon	Malaysia	Saudi Arabia
Belgium	Georgia	Malta	Serbia
Benin	Germany	Marshall Islands	Singapore
Bosnia and Herzegovina	Ghana	Mexico	Slovakia
Botswana	Greece	Monaco	Slovenia
Bulgaria	Guatemala	Montenegro	Spain
Burkina Faso	Guyana	Namibia	Sweden
Cameroon	Honduras	Netherlands	Switzerland
Canada	Hungary	New Zealand	Thailand
Costa Rica	Iceland	Nigeria	Turkey
Côte d'Ivoire	Indonesia	North Macedonia	Uganda
Croatia	Ireland	Norway	Ukraine
Cyprus	Israel	Papua New Guinea	United Arab Emirates
Czechia	Italy	Philippines	United Kingdom
Democratic Republic of the Congo	Jamaica	Poland	United Republic of Tanzania
Denmark	Japan	Portugal	United States
Dominican Republic	Kazakhstan	Qatar	Zambia



Bahamas
Grenada
Palau
Trinidad and Tobago
Barbados
Kiribati
Saint Kitts and Nevis
Tuvalu
Belize
Mali
South Sudan
Vanuatu
Cook Islands
Nauru
Suriname
Gambia
Oman
Tonga
Uruguay

**19 additional States** volunteered to participate from 2022, making a total of **107 Volunteer States**



Timeline	Responsibility	Action
1 January to 31 December 2022	Operator	Monitor 2022 CO <sub>2</sub> emissions from international flights
1 January to 30 April 2022	Operator and Verification Body	<ul style="list-style-type: none"><li>- Operator to compile 2021 CO<sub>2</sub> emissions data</li><li>- Verification body to verify 2021 Emissions Report</li></ul>
30 April 2022	Operator and Verification Body	Submit Emissions Report and associated Verification Report to the State of attribution
1 May 2022 to 31 July 2022	State	Conduct order of magnitude check of verified Emissions Report
31 July 2022	State	Submit aggregate 2021 CO <sub>2</sub> emissions data to ICAO through the CCR
31 October 2022	ICAO	<ul style="list-style-type: none"><li>- Publish 2021 CO<sub>2</sub> emissions</li><li>- Publish 2021 SGF</li></ul>
30 November 2022	State	Submit to ICAO through the CCR: <ul style="list-style-type: none"><li>- List of operators attributed to the State</li><li>- List of verification bodies accredited in the State</li></ul>
31 December 2022	ICAO	Publish list of aeroplane operators and list of verification bodies



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# CCR Materials Webpage

ICAO ENVIRONMENT

English CCR Beta

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ENVIRONMENT PROTECTION / CORSIA / CORSIA Central Registry / Materials

**CORSIA Central Registry Materials**

The CORSIA Central Registry (CCR) is to be used to submit CORSIA-specific information and data to ICAO. It is available here (for authorized users only).

The training version of the CCR to be used only for the purposes of training and familiarization with the CCR features is available here (for authorized users only).

Below you will find various materials regarding the CCR.

Manual/Quick Guides	Link
CCR User Manual (June 2020)	<a href="#">PDF</a>
Quick guide A: Introduction to the CCR	<a href="#">PDF</a>
Quick guide B: Reporting on aeroplane operators	<a href="#">PDF</a>
Quick guide C: Reporting on verification bodies	<a href="#">PDF</a>
Quick guide D: Reporting on CO <sub>2</sub> emissions (2019 and 2020)	<a href="#">PDF</a>

CSV Templates (used to upload data onto the CCR)	Link
Aeroplane Operators	<a href="#">CSV</a>
Verification Bodies	<a href="#">CSV</a>
CO <sub>2</sub> emissions (State pairs)	<a href="#">CSV</a>

Other Documents	Link
Frequently Asked Questions	<a href="#">PDF</a>
Troubleshooting Guide	<a href="#">PDF</a>

Training Videos/Recordings	Link
Pre-seminar remote training on the CCR (April 2020)	<a href="#">Webpage</a>

Legal Documents	Link
CCR terms of use agreement (June 2020)	<a href="#">PDF</a>
CCR privacy policy (June 2020)	<a href="#">PDF</a>

For any questions regarding the CCR, please contact ICAO at [cor@icao.int](mailto:cor@icao.int).  
For more information on CORSIA, please visit the ICAO website: [www.icao.int/corsia](http://www.icao.int/corsia)

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NEW

**CORSIA Central Registry User Manual**

Second Edition, January 2022

INTERNATIONAL CIVIL AVIATION ORGANIZATION

© ICAO 2022

NEW

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**CORSIA CENTRAL REGISTRY**

Quick Guide Series

REPORTING ON CO<sub>2</sub> EMISSIONS (2021 onwards)

According to Annex 16, Volume II, Part I, Chapter 2, 2.2.2.2, for the year 2021 onwards, each State that submits a report to ICAO that contains the total annual CO<sub>2</sub> emissions (in tonnes) per State pair aggregated for all aeroplane operators attributed to the State, and total annual CO<sub>2</sub> emissions for each aeroplane operator attributed to the State. Emissions that are subject to offsetting requirements must be reported separately from emissions that are not subject to offsetting requirements as per Appendix 1, Table A.5.1. For the purposes of the CCR, information on CO<sub>2</sub> emissions must be provided in separate fields as shown below.

**Information on CO<sub>2</sub> Emissions (mandatory fields are shown with a \*)**

For each State pair:

- \* Heat Shipping Tonnage
- \* To (State Name)
- \* CO<sub>2</sub> Emissions
- \* Confirmed Data (FALSE or TRUE)

For each Aeroplane Operator attributed to your State:

- \* CO<sub>2</sub> emissions subject to offsetting requirements
- \* CO<sub>2</sub> emissions exempt from offsetting requirements
- \* Low of ICAO CORSIA CERT (CO<sub>2</sub> Emissions and Reporting Tool)
- \* Confirmed Data (FALSE or TRUE)

**Reporting Deadline**

By 31 July of each year for CO<sub>2</sub> emissions for the previous year. For example, emissions for the year 2021 are to be submitted by 31 July 2022.

**Reporting Tips**

- Annex 16, Volume II defines a State pair as a "group of two States composed of a departing State or its territories and an arrival State or its territories" for two States (e.g., State A and State B) emissions for the State pair A-B must be provided separately from the emissions for the State pair B-A.
- For each State pair, "CO<sub>2</sub> Emissions" are the total aggregated emissions on the State pair reported by all aeroplane operators attributed to your State.
- The CCR will automatically determine if the emissions on a State pair are subject to offsetting requirements based on the CORSIA participation information for each State.
- You do not have to enter the names of the aeroplane operators attributed to your State. The CCR will automatically fill in the "CO<sub>2</sub> Emissions (Aeroplane Operator)" list with the information uploaded under "Report Aeroplane Operators" for the reporting year.
- For each aeroplane operator, "CO<sub>2</sub> Emissions" are the total aggregated annual CO<sub>2</sub> emissions for all State pairs. If an operator's annual CO<sub>2</sub> emissions are less than 10,000 tonnes, you do not have to provide any data. The CCR will automatically calculate the total amount of emissions subject to offsetting requirements and those that are not subject to offsetting requirements based on both State pair data and aeroplane operator data. The data should be the same. But if they are not the CCR will issue a warning. TRUE means confidential data. For "Confirmed Data" FALSE means not confidential data (public) and TRUE means confidential data.

NEW

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**CORSIA CENTRAL REGISTRY**

Quick Guide Series

REPORTING ON CORSIA ELIGIBLE FUELS

From 2021 onwards, aeroplane operators attributed to your State can claim for emissions reductions from the use of CORSIA eligible fuels. In such cases, operators are required to submit relevant information and data on these claims. In turn, you must aggregate the information that you will receive and report to ICAO according to Annex 16, Volume II, Part I, Chapter 2, 2.2.2.2 in particular, you are required to provide the supplementary information on CORSIA eligible fuels as per Appendix 1, Table A.5.2. For the purposes of the CCR, information on CORSIA eligible fuels must be provided in separate fields as shown below.

**Information on CORSIA Eligible Fuels (all fields are mandatory and are shown with a \*)**

For each batch of CORSIA Eligible Fuel:

- \* Batch Number
- \* Production Year
- \* Production
- \* Total mass of Heat Fuel Produced (tonnes)
- \* Fuel Type
- \* Fuelstock
- \* Conversion Process
- \* Total mass of Heat Fuel Claimed (tonnes)
- \* Total Emissions Reduction Claimed (tonnes of CO<sub>2</sub>)

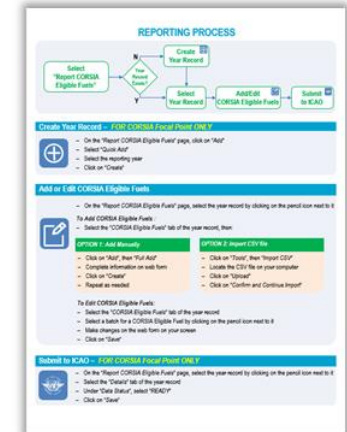
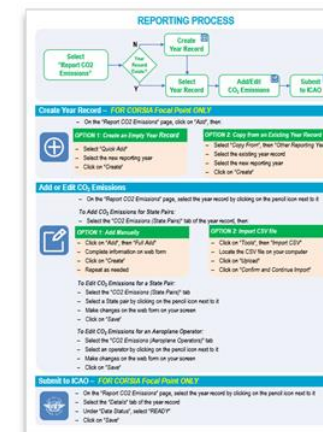
**Reporting Deadline**

Depending on the frequency of reporting by the operators attributed to your State, you can submit aggregated information on CORSIA eligible fuels annually for each year of a three-year compliance cycle or once at the end of the three-year compliance cycle as follows:

- For annual reporting: 31 July of each year for the previous year. For example, the deadline for the year 2021 is 31 July 2022.
- For biennial reporting: 31 July of the year following the last year of the three-year compliance cycle. For example, the deadline for the last phase (2021-2022) is 31 July 2024.

**Reporting Tips**

- Information has to be reported for each batch of CORSIA eligible fuels.
- The list of names of producers is applied CORSIA participant and is the same for all CCR users, each Producer name is unique and has to be checked (if it does not exist in the dropdown list).
- The list of total mass of Heat Fuel Produced (tonnes) is not confidential in Annex 16, Volume II, Appendix 1, Table A.5.2. Its inclusion in the CCR serves as a check of the "Total mass of Heat Fuel Claimed (tonnes)", which cannot be higher than the amount of fuel produced. This is particularly useful if more than one State submits information for the same batch. If you do not wish to submit this information, you can report "0.0" (minimum possible value for this field).
- The CCR will automatically calculate the total amount of Emissions Reductions Claimed based on the emissions reduction of all batches reported in "CORSIA Eligible Fuels" tab.



<https://www.icao.int/environmental-protection/CORSIA/Pages/ccr-materials.aspx>





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Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA)

CORSIA News (click here to consult the complete list)

19-25 Jan 2019

Trinidad & Tobago and Jamaica received training under the ACT-CORSIA Buddy Partnership with Germany

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## CORSIA IMPLEMENTATION

- Assembly Resolution A39-3
- SARPs - Annex 16 Volume IV
- Environmental Technical Manual - Volume IV (New)
- Templates (New)
- ICAO CORSIA Implementation Elements
  - CORSIA States for Chapter 3 State Pairs
  - ICAO CORSIA CO<sub>2</sub> Estimation and Reporting Tool (CERT)
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Additional Material for CORSIA Implementation

CORSIA

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