



ICAO

ENVIRONMENT

CORSIA Newsletter

December 2023

The **Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA)** is the first global market-based scheme that applies to a sector. It complements other aviation in-sector emissions reduction efforts such as technological innovations, operational improvements and sustainable aviation fuels to meet the ICAO aspirational goal of carbon neutral growth.

For more details on what is CORSIA click [here](#)

CORSIA 2023 – Year in Review

In 2023, **CORSIA implementation remained on track and the scheme successfully completed its Pilot Phase.** States and operators continued to fulfill their CORSIA-related requirements in accordance with [Annex 16, Volume IV](#).

Since 2021, the number of volunteer States has steadily increased. During 2023, there has been an **increase in the number of [States voluntarily participating in CORSIA](#) from 115 States from 1 January 2023 to 126 States from 1 January 2024.** The larger the number of States that voluntarily participate in CORSIA, the larger the **environmental effectiveness** of the Scheme through the increased number of routes covered under its offsetting requirements.

In March 2023, the ICAO Council approved the **amendments of Annex 16, Volume IV**, based on recommendations from the Committee on Aviation Environmental Protection (CAEP), and on consequential changes as result of the adoption of 41st ICAO Assembly Resolution [A41-22](#). The CORSIA SARPs, [Annex 16, Volume IV](#) (2nd edition) became effective on 31 July 2023 and became applicable on 1 January 2024. The [Doc 9501, Environmental Technical Manual, Volume IV](#) (3rd edition) which was made available on 13 November 2023, contains guidance for the implementation of the Standards and Recommended Practices (SARPs) contained in the second edition of Annex 16, Volume IV.

The ICAO Council also played a crucial role by guiding the continued **updates of all [CORSIA Implementation Elements](#)**, through the approval of ICAO CORSIA documents that are essential for the transparency and effectiveness of the CORSIA implementation. During 2023, the Council approved the following ICAO CORSIA documents, which were published on the ICAO website (*month and year in parentheses indicate time of approval by the ICAO Council*):

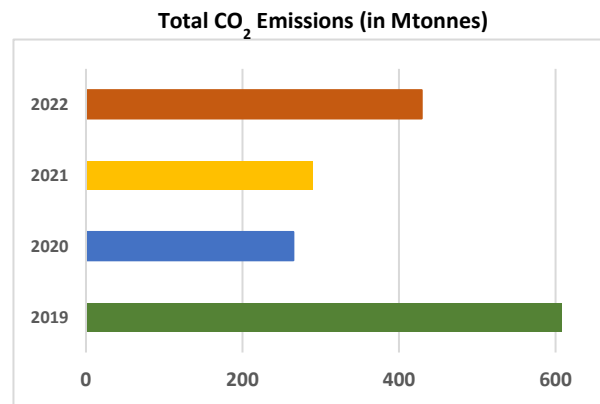
- [Updated list of 126 States](#) that volunteered to participate in CORSIA offsetting requirements from 1 January 2024 (4th ed. rev 1, in October 2023);
- Updated 2023 version of the [ICAO CORSIA CERT](#) (November 2023);
- Updated [CORSIA Eligible Fuels](#) information, specifically the CORSIA Approved Sustainability Certification Schemes after the pilot phase (2nd ed. in June 2023);
- Updated [CORSIA Eligible Emissions Units](#) (9th and 10th eds. in March and November 2023 respectively) acting upon recommendations of the Technical Advisory Body (TAB);

- Updated ICAO document [CORSA Central Registry \(CCR\): Information and Data for Transparency, Part III](#), which contains 2022 CO₂ emissions aggregated on each State pair and 2022 CO₂ emissions for aeroplane operators (2nd ed. in October 2023);
- Updated ICAO document [CORSA Annual Sector's Growth Factor \(SGF\)](#) for 2022 (2nd ed. in October 2023);
- Updated ICAO document [CORSA Aeroplane Operator to State Attributions](#) (8th ed. in December 2023); and
- Updated ICAO document [CORSA Central Registry \(CCR\): Information and Data for Transparency, Part I](#), which contains Verification bodies accredited in States (11th ed. in December 2023).

In 2023, the ICAO Secretariat also updated the [Navigating CORSIA Series](#) to reflect the provisions of Assembly Resolution A41-22 (also see section below on Navigating CORSIA 2023 Edition), as well as an updated set of [CORSA Frequently Asked Questions](#) and [CORSA Model Regulations](#). There were also other updates on the CORSIA websites, including a [Leaflet for CORSIA Focal Points](#).

2023 CORSIA Implementation Highlights

In accordance with Annex 16, Volume IV, starting on 1 January 2023, **aeroplane operators compiled their 2022 CO₂ emissions and had them verified** through the third-party verification process established under CORSIA. Operators submitted their verified **2022 emissions reports** to their State of attribution and throughout the year, operators continued to monitor their 2023 CO₂ emissions (*to be reported in 2024*). **States collected 2022 CO₂ emissions data** from their operators, **performed an order of magnitude check, aggregated emissions and submitted** to ICAO through the [CORSA Central Registry](#) (CCR).



The 2022 CO₂ emissions submitted by States through the CCR correspond to **more than 97.7% of the total CO₂ emissions** for the year ensuring the successful implementation of CORSIA. In October 2023, the ICAO Secretariat calculated the 2022 Sector's Growth Factor, using the 2022 CO₂ emissions data and the 2019 CO₂ emissions data (the baseline of CORSIA for the pilot phase) and prepared the second edition of ICAO document ***CORSA Annual Sector's Growth Factor (SGF)***. The **2022 SGF value is 0.0** given that the CO₂ emissions subject to offsetting requirements in 2022 (about 272 million tonnes) were less than the 2019 baseline emissions (about 346 million tonnes). This means that **aeroplane operators do not have any offsetting requirements under CORSIA for 2022**.

Regarding [CORSA Eligible Emissions Units](#), the ICAO Council in March 2023 reached an important agreement by approving a **2021 vintage start date general eligibility parameter for all CORSIA Eligible Emissions Units that are approved for use in the CORSIA first phase (2024-2026 compliance period)**, in addition to the existing 2016 crediting start date parameter. The approved vintage will cover those units issued in respect of emissions reductions that occurred from **1 January 2021 through 31 December 2026**. The Council also approved the first two programmes to supply CORSIA eligible emissions units to the first phase.



Regarding [CORSA Eligible Fuels](#), ICAO reached another major milestone in 2023 through the certification of the first **sustainable aviation fuels (SAF) batches** under CORSIA, making use of the two ICAO-approved Sustainability Certification Schemes designed for this purpose, marking a significant milestone for both SAF production and the international aviation sector. **Nine (9) batches of SAF were certified**, yielding a total of **1,542 tonnes of fuel** produced from **tallow and used cooking oil** in China, Netherlands and United States. The certified batches achieved life-cycle CO₂ emissions reductions ranging between **75% and 84%** (compared to conventional aviation fuels), which is significantly higher than the 10% reduction required under the CORSIA sustainability criteria. The

CORSIA sustainability certification process established by ICAO recognizes the **environmental benefits of SAF** for use by an aeroplane operator to claim the reduction of its offsetting requirements in CORSIA.

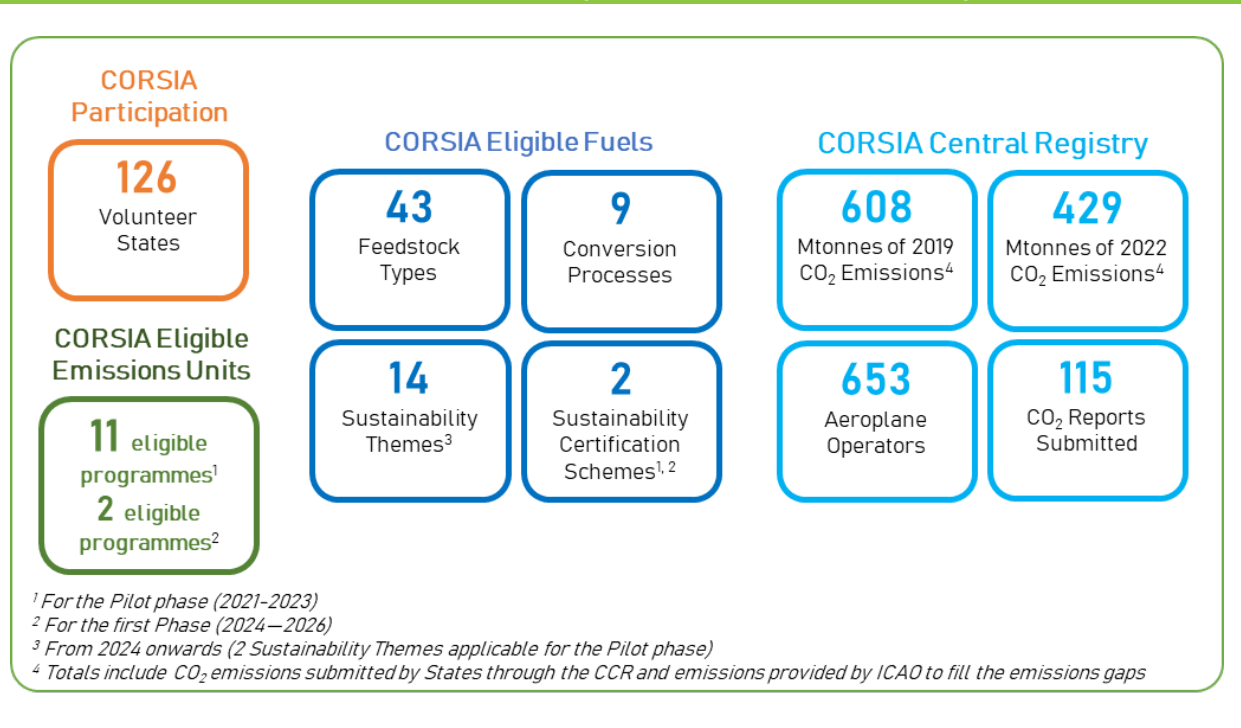


In addition, at the [third ICAO Conference on Aviation and Alternative Fuels \(CAAF/3\)](#) in November 2023, Member States adopted the [ICAO Global Framework for Sustainable Aviation](#)

[Fuels \(SAF\), Lower Carbon Aviation Fuels \(LCAF\) and other Aviation Cleaner Energies](#), which refers to the **CORSIA sustainability criteria, sustainability certification, and the methodology for the assessment of life cycle emissions, as the accepted basis for the eligibility of SAF, LCAF and other cleaner energies used for international aviation.**

All of the above-mentioned CORSIA-specific developments were highlighted in various editions of CORSIA monthly newsletters in 2023. ICAO will continue to provide regular updates on the implementation of CORSIA in future editions.

CORSIA in Numbers (as of 31 December 2023)



CORSIA Implementation in 2024

CORSIA will start its **First Phase** in 2024 and ICAO will continue to work with all Member States to ensure that they have all the **necessary means for continuous implementation of CORSIA.**

ICAO has received the notification of more States to join CORSIA from 1 January 2024 (bringing the total number of participating States to **126**), and the **second Edition of Annex 16, Volume IV** has become applicable on 1 January 2024.





Key CORSIA implementation deadlines for 2024 are highlighted below:

- **31 December 2023:** States to obtain from the ICAO website and use the ICAO document entitled “*CORSIA Aeroplane Operator to State Attributions*” summarising a list of operators and the State to which they have been attributed;
- **1 January to 31 December 2024:** Operator monitors its 2024 CO₂ emissions in accordance with its approved Emissions Monitoring Plan;
- **1 January to 30 April 2024:** Aeroplane operators compile 2023 CO₂ emissions data to be verified by verification bodies;
- **by 30 April 2024:** Aeroplane operators and verification bodies to submit to States the verified Emissions Reports and associated Verification Reports for 2023 CO₂ emissions;
- **by 31 July 2024:** States perform an order of magnitude check of **the submitted 2023 CO₂ emissions**, including any filling of data gaps in case of non-reporting by aeroplane operators, consolidate all reported CO₂ emissions data, and use the CORSIA Central Registry (CCR) to report to ICAO aggregated 2023 CO₂ emission data and, if applicable, information on CORSIA eligible fuels; and
- **by 30 November 2024:** State checks the ICAO document “**CORSIA Annual Growth Sector’s Factor (SGF)**” and uses the **2023 SGF** to calculate the **2023 offsetting requirements** for the aeroplane operators and consequently, the States informs the aeroplane operators about their respective 2023 offsetting requirements.

ICAO will continue to support all States cooperating under the **ACT-CORSIA programme** and in the spirit of ICAO’s *No Country Left Behind* initiative.

ICAO at UNFCCC COP28



The 28th United Nations Climate Change Conference ([COP28](#)) took place in Dubai, United Arab Emirates, from 30 November to 13 December 2023. UNFCCC Parties and non-Party stakeholders delivered the results of the first global stocktake of how countries can accelerate action to meet the goals of the Paris Agreement. The final COP28 outcome called on all countries to contribute to a list of goals, including “transitioning away from fossil fuel” and accelerating action in this critical decade.

ICAO actively participated in the COP28 to inform Parties and relevant stakeholders about the landmark decision reached by ICAO Member States during the [third ICAO Conference on Aviation and Alternative Fuels](#) (CAAF/3) (also held in Dubai, United Arab Emirates from 20 to 24 November 2023), with the adoption of the [ICAO Global Framework for Sustainable Aviation Fuels \(SAF\), Lower Carbon Aviation Fuels \(LCAF\) and other Aviation Cleaner Energies](#). The framework strives to achieve a **collective global aspirational Vision to reduce CO₂ emissions in international aviation by 5 per cent by 2030, through the use of SAF, LCAF and other aviation cleaner energies** (compared to zero cleaner energy use). The adoption of the Framework sends a clear signal to the international community regarding the continued leadership role and determination of ICAO and its Member States in addressing emissions from international aviation.

All ICAO outreach activities at COP28 are available on the [dedicated ICAO webpage](#), including the ICAO [statement](#) and [submission](#), side events, and the [video](#) to highlight its recent activities and progress.

Navigating CORSIA 2023 Edition



The **Navigating CORSIA Series – 2023 Edition** reflects the provisions of Assembly Resolution A41-22 and the milestones reached to implement CORSIA since the previous 2020 Edition. Since the adoption of the CORSIA-related [Standards and Recommended Practices \(SARPs\)](#), ICAO developed and has been updating all the implementation elements needed for the timely and robust implementation of CORSIA.

The Navigating CORSIA 2023 is a package of pre-recorded presentations that serve as a **guide to the CORSIA's design and implementation features**; the videos provide an overview of CORSIA, information on the Monitoring, Reporting and Verification tools, CORSIA Eligible Fuels and CORSIA Eligible Emissions Units. The videos are available on [ICAO TV](#).

Additionally, the [ICAO CORSIA website](#) was updated with new materials to support States, operators and verification bodies in their work towards implementation of CORSIA. The training material on **model regulations** for CORSIA was also updated to include provisions relating to offsetting requirements and the cancellation of CORSIA eligible emissions units. The CORSIA website includes information on:

- [CORSIA Buddy Partnerships](#)
- [Examples of Good Practice](#)
 - [Model regulations](#)
 - [CO₂ Aggregation](#)
- [Frequently Asked Questions](#)
- [Brochure and leaflets](#)
- [Videos \(Navigating CORSIA\)](#)
- [Seminars](#)
- [Online Tutorials](#)

CORSIA Capacity Building



ACT-CORSIA is the ICAO Assistance, Capacity Building and Training programme on **CORSIA**. It was established in June 2018 and encompasses the CORSIA Buddy Partnerships and all other ICAO outreach materials.

The **ACT-CORSIA Buddy Partnerships** rely on individual training of CORSIA Focal Points and are the core of capacity building activities. A total of 136 States participate in the ACT-CORSIA Buddy Partnerships.

In March 2024, the ICAO Secretariat will organize the annual Training of Trainers under the ACT-CORSIA programme. More information can be found [here](#).

For 2024, the focus of the training under the ACT-CORSIA Buddy Partnerships continues to be on the use of the CORSIA Central Registry and, in particular, the reporting requirements as relating to CO₂ emissions, CORSIA eligible fuels and CORSIA eligible emissions units.

The [Leaflet for CORSIA Focal Points](#) is available now to provide information and useful links that will assist State's focal points in the implementation of CORSIA.



The **CORSIA Verification Course** provides training on how to verify CO₂ Emissions Reports that have been prepared by aeroplane operators, in accordance with the provisions of the CORSIA Standards and Recommended Practices (SARPs) contained in Annex 16, Volume IV.

The CORSIA Verification Course has been updated to provide information on verification requirements as per the upcoming second edition of Annex 16, Volume IV, applicable from 1 January 2024.

> [Click here](#) for more information and registration

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For more information, visit the ICAO website: www.icao.int/corsia