



ICAO

ENVIRONMENT

CORSIA Newsletter

December 2021

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 reductions efforts such as technological innovations, operational improvements and sustainable aviation fuels to meet the ICAO aspirational goal of carbon neutral growth.

CORSIA 2021 – Year in Review

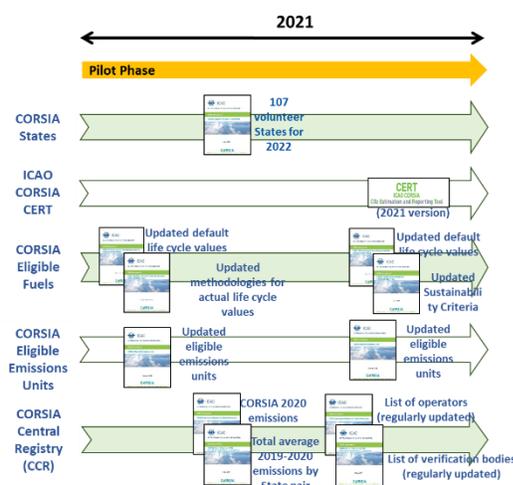
During 2021, States and aeroplane operators continued to face challenges as result of the COVID-19 pandemic. Although international air traffic started to show some signs of recovery, flights continue to be at **significantly lower levels** compared to 2019. However, despite the unfavorable global environment, **CORSIA implementation remains on track**. In 2021, States and operators continued to gain experience and become familiar, with the various CORSIA requirements resulting in the fulfilment of obligations in a timely manner. The fact that more than **97% of CO₂ emissions for both 2019 and 2020** have been reported through the CCR is testament of the determination of both governments and operators to ensure the successful implementation of the Scheme. This determination is also reflected in the **increase in the number of States voluntarily participating in CORSIA** from 88 States in 2021 to **107 States in 2022**.

The beginning of 2021 marked the **start of the CORSIA pilot phase (2021 to 2023)** and the onset of calculating CO₂ offsetting requirements, which aeroplane operators need to meet through the use of CORSIA eligible fuels and CORSIA eligible emissions units.

Throughout the year 2021, the ICAO Council continued to advance the **development and update of all CORSIA Implementation Elements** (click [here](#) for a timeline of the development of the CORSIA “package”). The availability of the majority of the ICAO CORSIA documents, following their approval by the Council, has resulted in improving the **transparency of implementation**. Furthermore, ICAO (in partnership with Ecosystem Marketplace) provided information on the average **price of CORSIA eligible emissions units** from different project categories for 2020 and 2021.

Highlights for the year 2021

The ICAO Council approved the following ICAO CORSIA documents:



- The list of 107 States that volunteered to participate in CORSIA offsetting requirements from 1 January 2022 (*July 2021*);
- 2021 version of the ICAO CORSIA CERT (*December 2021*);
- Updated default life cycle values (*March and November 2021*), methodologies for actual life cycle values (*March 2021*), and sustainability criteria for CORSIA eligible fuels (*November 2021*);
- Updated CORSIA eligible emissions units (*March and November 2021*) acting upon recommendations of the Technical Advisory Body (TAB); and
- The list of aeroplane operators attributed to States (*June and December 2021*), the list of verification bodies accredited in States (*June and December 2021*), total average 2019 and 2020 CO₂ emissions on each State pair (*November 2021*), and total 2020 emissions (*November 2021*).

Starting on 1 January 2021, aeroplane operators **compiled their 2020 CO₂ emissions and had them verified** through the third-party verification process established under CORSIA. Operators submitted their verified 2020 emissions reports to their State of attribution (deadline: 31 May). Throughout the year, operators continued to monitor their 2021 CO₂ emissions (to be reported in 2022).

States **collected CO₂ emissions data** from their operators, **performed an order of magnitude check, aggregated emissions and submitted** to ICAO (deadline: 31 August). States also reported information on aeroplane operators attributed to them, and verification bodies accredited in them (deadline: 31 November). Submitted information and data was compiled in ICAO CORSIA documents that were approved by the Council as mentioned above, and subsequently published on the ICAO [website](#).

All of these CORSIA-specific developments were highlighted in various editions of this newsletter in 2021. ICAO will continue to provide regular updates on the implementation of CORSIA in future editions.

Looking towards the year 2022

For year 2022, ICAO will continue to work with all ICAO States to ensure that they have all the means needed to facilitate their **continuous implementation of CORSIA**. ICAO is also looking forward to **more States joining** the CORSIA offsetting requirements and, in this regard, it will continue to support States through capacity building activities under the **ACT-CORSIA programme** and in the spirit of ICAO's *No Country Left Behind* initiative.

CORSIA in Numbers (as of 31 December 2021)

Under CORSIA, aeroplane operators with international flights are subject to [monitoring, reporting and verification \(MRV\) requirements](#). As of 1 January 2019, operators are required to monitor their annual CO₂ emissions, have them verified through a third-party verification process, and submit them to the States to which they are attributed. States collect emissions data from all their operators and submit consolidated information to ICAO.

Update

In addition to CO₂ emissions, States are required to submit information on aeroplane operators attributed to them, and on verification bodies accredited in them. The [latest lists of aeroplane operators and verification bodies](#), as submitted by States in 2021, have been approved by the ICAO Council and can be found in the [sixth edition of ICAO document "CORSIA](#)

Aeroplane Operator to State Attributions” and in the ninth edition of Part I of ICAO document *“CORSIA Central Registry (CCR): Information and Data for Transparency”*, respectively.

107
Volunteer States

176
CCR States Accounts

256
CCR Users Accounts

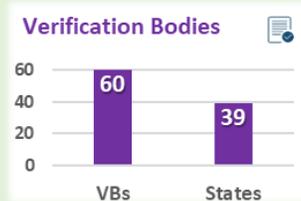


117
2019 CO₂ Reports submitted

606
Mtonnes of 2019 CO₂ Emissions*

110
2020 CO₂ Reports submitted

265
Mtonnes of 2020 CO₂ Emissions*



* Totals include CO₂ emissions submitted by States through the CCR, and emissions provided by ICAO to fill the emissions gaps

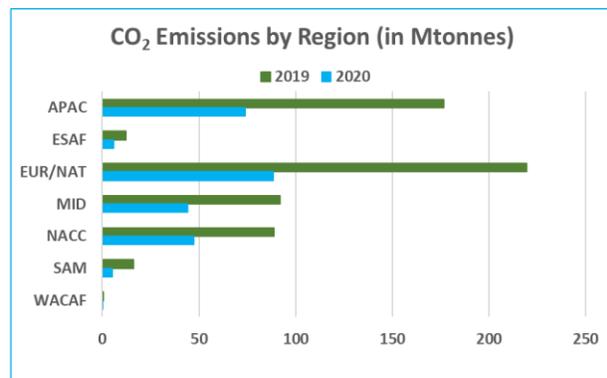
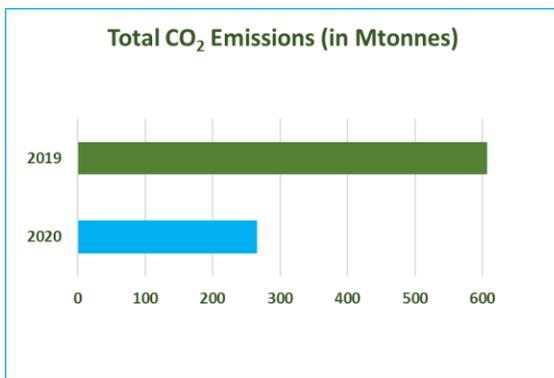
CCR: CORSIA Central Registry

CORSIA CO₂ Emissions

Update

The CORSIA baseline CO₂ emissions (taking into account the relevant decisions by the Council in June 2020) were aggregated for all aeroplane operators on each State pair in **Part II of the ICAO document “CORSIA Central Registry (CCR): Information and Data for Transparency”**. In addition, the **ICAO document “CORSIA 2020 Emissions”** was prepared containing emissions data for 2020 that can be used by States to determine new entrants. Following their approval by the ICAO Council in late November 2021, both ICAO CORSIA documents **are now available** on the ICAO [website](#).

The impact of COVID-19 on international aviation in 2020 is reflected on the CORSIA CO₂ emissions as shown in the graphics below. **Total emissions in 2020 were 56% lower compared to the 2019 levels as result of imposed travel restrictions.** Corresponding emissions reductions between 2019 and 2020 can be observed for all ICAO regions.



ICAO CORSIA CO₂ Estimation and Reporting Tool (CERT)



The ICAO CORSIA CERT can be used by aeroplane operators to support the monitoring and reporting of their CO₂ emissions by populating the standardized [Emissions Monitoring Plan template](#) and the [Emissions Report template](#). The ICAO CORSIA CERT can also be used by States to fill in reporting data gaps if an operator does not submit its Emissions Report.

The 2021 version of the ICAO CORSIA CERT was approved by the ICAO Council and is now available [here](#) together with information on its underlying methodology.

Upcoming CORSIA Implementation Deadlines (2022)



In accordance with Appendix 1 to [Annex 16, Volume IV](#), in 2022, States will receive verified Emissions Reports and associated Verification Reports **one month earlier** compared to previous years (30 April instead of 31 May). With this deadline fast approaching, verification bodies may soon seek the advice of State authorities on the **application of a remote verification approach**. A checklist to aid in the consideration of these requests is provided [here](#). States are reminded that as the Emissions Reports will be received one month earlier, the order of magnitude check is also to be finalized one month earlier in order to **submit CO₂ emissions through the CCR by 31 July**.

Upcoming deadlines for 2022:

1 January 2022 to 30 April 2022: Aeroplane operators to compile 2021 CO₂ emissions data to be verified by verification bodies.

30 April 2022: Aeroplane operators and verification bodies to submit to States the verified Emissions Reports and associated Verification Reports for 2021 CO₂ emissions.

1 May 2022 to 31 July 2022: States to conduct an order of magnitude check of the verified 2021 Emissions Reports, including any filling of data gaps in case of non-reporting by aeroplane operators.

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 initiatives including [sample model regulations for CORSIA](#), frequently asked questions (FAQs), [brochure and leaflets](#), [videos](#) as well as CORSIA [seminars/webinars and online tutorials](#).

CORSIA Frequently Asked Questions (FAQs): An updated version of the frequently asked questions (FAQs) on CORSIA, including the interactive-interface version, is available [here](#).

ACT-CORSIA Buddy Partnerships are the core of capacity building activities. They rely on individual training of CORSIA Focal Points and involves experts from 134 States. More information can be found [here](#).

For 2022, the focus of the training under the ACT-CORSIA Buddy Partnerships will be on the use of the CCR and, in particular, the new reporting requirements as relating to CO₂ emissions and CORSIA eligible fuels

CORSIA Eligible Emissions Units

The ICAO Council in November 2021 considered the recommendations of the Technical Advisory Body (TAB) from its 2021 assessment cycle, and approved the amendment of ICAO document “*CORSIA Eligible Emissions Units*”. In particular, the Council approved:

- The update of the *Scope of Eligibility* for **Verified Carbon Standard (VCS)** to include two Agriculture, Forestry, and Other Land Use (AFOLU) methodologies, and
- The extension of the *Eligible Unit Dates* for **Architecture for REDD+ Transactions (ART)** from current “through 31 December 2020” to “through 31 December 2023”.

Update

More details, including the TAB’s recommendation and the updated ICAO document “*CORSIA Eligible Emissions Units*”, **are now available** on the ICAO [website](#).

Internationally Applied Sustainability Criteria for CORSIA Eligible Fuels

The ICAO Council in November 2021 approved new Sustainability Criteria for sustainable aviation fuels (SAF) for application after the CORSIA pilot phase (2024 onwards).

The new set of criteria are included under 12 Sustainability Themes that comprise environmental and socio-economic aspects, making it the first global approach to sustainability for an industry sector.

Associated with that decision, the Council approved related guidance to the application of CORSIA Sustainability Themes 3 to 7.

The Council also approved new default life-cycle emission values for SAF produced from waste gases (ETJ conversion process), and for SAF produced from tallow, soybean oil, and used cooking oil co-processed at petroleum refineries.

CORSIA Sustainability Themes

1. Greenhouse Gases
2. Carbon stock
3. Water
4. Soil
5. Air
6. Conservation
7. Waste and Chemicals
8. Human and labour rights
9. Land use rights and land use
10. Water use rights
11. Local and social development
12. Food security

Update

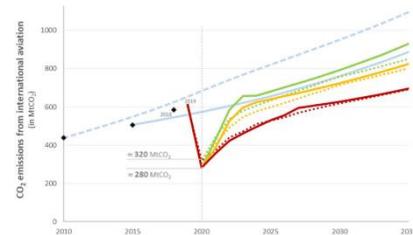
More details on these decisions, including the updated ICAO documents, **are now available** on the ICAO [website](#).

2022 CORSIA Periodic Review

In accordance with paragraphs 9 g) and 17 of ICAO Assembly Resolution [A40-19](#), the ICAO Council has been tasked with undertaking a periodic review of the implementation of CORSIA every three years, starting 2022. In the context of sustainable development of the international aviation sector and improving the effectiveness of the Scheme, the Council is to consider the impact of CORSIA on the growth of international aviation, and to recommend, as necessary, adjustments to the next phase or compliance cycle of CORSIA.

More details on the ICAO Council agreement in March 2021 on the process and methodology for the 2022 CORSIA periodic review can be found on [C-DEC 222/12](#) Paragraphs 9 to 10, including the consideration of inputs from its subsidiary bodies (such as the CAEP and the TAB) and timeline. Any recommendations by the Council will be forwarded for consideration by the 41st ICAO Assembly scheduled for 2022.

In November 2021, CAEP's analyses in support of the 2022 CORSIA periodic were presented to the 224th Session of the ICAO Council, including an **update of the CAEP analyses of COVID-19 impacts on CORSIA and CAEP's initial assessment on the implementation of CORSIA, in particular the functioning of MRV provisions**. The [analyses](#) and its [executive summary](#) are now available on the ICAO website.



Navigating CORSIA - A guide to the scheme's design & implementation



Since the adoption of the CORSIA-related [Standards and Recommended Practices \(SARPs\)](#) in 2018, ICAO has developed the remaining elements needed for the CORSIA implementation.

Click [here](#) to watch on the ICAO TV the **Navigating CORSIA** series of pre-recorded presentations that focus on the status of implementation of CORSIA and provide information on its key design elements.

Click [here](#) for an infographic on the status of all implementation elements.



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).

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

International Civil Aviation Organization
999 Robert-Bourassa Boulevard, H3C 5H7, Montréal, Québec, Canada

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