

**57th CONFERENCE OF
DIRECTORS GENERAL OF CIVIL AVIATION
ASIA AND PACIFIC REGIONS**

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AGENDA ITEM 7: AVIATION AND ENVIRONMENT

**LATEST DEVELOPMENTS ON THE CARBON OFFSETTING
AND REDUCTION SCHEME FOR INTERNATIONAL
AVIATION (CORSA)**

Presented by the ICAO Secretariat

SUMMARY

This paper presents an overview of the recent developments of the ICAO work on the Carbon Offsetting and Reduction Scheme for International Aviation (CORSA). It includes information on the status of the CORSA package; status of CORSA implementation; developments on the 2022 CORSA periodic review undertaken by the ICAO Council; and CORSA-related capacity building activities.

The proposed actions are presented in section 5.

LATEST DEVELOPMENTS ON THE CARBON OFFSETTING AND REDUCTION SCHEME FOR INTERNATIONAL AVIATION (CORSA)

1. INTRODUCTION

1.1 The ICAO Assembly, at its 39th Session in 2016, adopted the Carbon Offsetting and Reduction Scheme for International Aviation (CORSA) as the first global market-based measure (MBM) scheme for any industry sector. CORSA was established as a complementary element in the ICAO basket of CO₂ mitigation measures.

1.2 In June 2018, the Council adopted the first edition of Annex 16, Volume IV, containing the Standards and Recommended Practices (SARPs) for the implementation of CORSA. The Annex 16, Volume IV became applicable on 1 January 2019.

1.3 In order to support relevant stakeholders in the implementation of the CORSA-related SARPs as contained in Annex 16, Volume IV, Doc 9501 – *Environmental Technical Manual, Volume IV-Procedures for demonstrating compliance with the CORSA*, contains guidance on the process to implement CORSA. The second edition of this document, issued in September 2019, provides the most recent information available to administering authorities, aeroplane operators, verification bodies and other interested parties, aiming at achieving the highest degree of harmonization possible.

1.4 In addition to Annex 16, Volume IV and Doc 9501, Volume IV, the framework for CORSA implementation comprises five CORSA Implementation Elements, which are reflected in 14 ICAO documents and directly referenced in Annex 16, Volume IV. The ICAO documents are essential for the implementation of CORSA and approved and amended by the Council prior to their publication.

1.5 The 40th Session of the ICAO Assembly in 2019 noted the successful development of CORSA-related SARPs and guidance, as well as the progress in developing the various CORSA Implementation Elements. The ICAO Assembly also encouraged all States to voluntarily participate in CORSA as early as possible, and recognized the importance and benefits of capacity building and assistance activities to enable more States to join the scheme.

2. CORSA IMPLEMENTATION COMPONENTS

2.1 The 40th Session of the ICAO Assembly recognized that, while CORSA implementation was on track, there was a need for further work on areas such as CORSA eligible fuels and CORSA eligible emissions units.

2.2 Following the ICAO Assembly, and once Annex 16, Volume IV and Doc 9501, Volume IV were available, the ICAO Council focused on the approval of those ICAO documents related to the CORSA Implementation Elements whose availability was required for the implementation of CORSA's pilot phase, ahead of its starting date of 1 January 2021. The following paragraphs summarize the current status of the CORSA Implementation Elements and related ICAO documents.

2.3 ICAO has developed the **ICAO CORSA CO₂ Estimation and Reporting Tool (CERT)**¹, which aims to simplify the estimation and reporting of CO₂ emissions from international flights for those operators with low levels of activity to fulfil their monitoring and reporting requirements under CORSA. Since the first version of the tool was published in 2018, the ICAO CORSA CERT is updated

¹ CORSA CERT webpage: <https://www.icao.int/environmental-protection/CORSA/Pages/CERT.aspx>

on an annual basis as scheduled, and made available in the ICAO CORSIA website. The 2022 version of the ICAO CORSIA CERT will be available in November 2022.

2.4 The **CORSIA Central Registry (CCR)**² was operationalized in May 2020, in order to allow States to submit 2019 CO₂ emissions data to ICAO as per the defined deadline of 31 August 2020. Since then, States have provided annual information on CO₂ emissions (23 APAC States in 2019 and 24 APAC States in 2020) as well as information on aeroplane operators attributed to States (29 APAC States in 2019 and 25 APAC States in 2020) and the list of accredited verification bodies in States (9 APAC States in 2019 and 9 APAC States in 2020). The information submitted by States through the CCR is processed and published in the ICAO CORSIA website, and allows for the publication of data needed for CORSIA implementation, such as the CORSIA annual Sector's Growth Factor, whose first value (corresponding to 2021 CO₂ emissions) will be made available by end of October 2022.

2.5 Work on **CORSIA Eligible Emissions Units**³ was launched in March 2019 when the ICAO Council approved the ICAO document *CORSIA Emissions Unit Eligibility Criteria* and established the Technical Advisory Body (TAB). In March 2020, the ICAO Council approved the first edition of the ICAO document *CORSIA Eligible Emissions Units*, which contains emissions unit programmes approved to supply eligible emissions units for CORSIA purposes. Since then, the Council has regularly updated the ICAO document *CORSIA Eligible Emissions Units* on the basis of TAB's assessment work and recommendations. The next assessment result and recommendations of TAB will be considered by the Council in late 2022.

2.6 ICAO has developed a methodology to reduce an operator's CO₂ offsetting requirements in CORSIA through the use of **CORSIA Eligible Fuels**⁴, which include both Sustainable Aviation Fuel (SAF) and Lower Carbon Aviation Fuel (LCAF). As a result, five ICAO documents have been approved with information such as the development of life-cycle emissions values, sustainability criteria, and eligibility requirements for sustainability certification schemes (SCS). Future updates of the ICAO documents (e.g. sustainability criteria for LCAF) are under consideration by the ICAO Council.

2.7 In June 2020, the first edition of the ICAO document *CORSIA States for Chapter 3 State Pairs* was published, listing the 88 States that notified their **voluntary participation in CORSIA in 2021**⁵. The second edition of this ICAO document was published in June 2021, listing the 107 States that volunteered to participate in CORSIA in 2022. The third edition of this document, listing the States that volunteer to participate in CORSIA in 2023, will be published in June 2022.

2.8 Appendix A to this paper reflects the timeline for the completion and maintenance of the essential components for CORSIA implementation.

3. VOLUNTARY PARTICIPATION IN CORSIA

3.1 The 40th Session of the ICAO Assembly strongly encouraged all States to voluntarily participate in the pilot phase and the first phase of CORSIA (Resolution A40-19, paragraph 9 c)). Voluntary participation determines the international air routes subject to CO₂ offsetting requirements under CORSIA. More participating States will bring ICAO closer to meeting the global aspirational goal of carbon neutral growth for international aviation.

² CORSIA Central Registry webpage: <https://www.icao.int/environmental-protection/CORSIA/Pages/CCR.aspx>

³ CORSIA Eligible Emissions Units webpage: <https://www.icao.int/environmental-protection/CORSIA/Pages/CORSIA-Emissions-Units.aspx>

⁴ CORSIA Eligible Fuels webpage: <https://www.icao.int/environmental-protection/CORSIA/Pages/CORSIA-Eligible-Fuels.aspx>

⁵ CORSIA volunteer States webpage: <https://www.icao.int/environmental-protection/CORSIA/Pages/state-pairs.aspx>

3.2 At the time of publication of this working paper, a total of 111 States intend to voluntarily participate in CORSIA in 2023; these include the 107 States already participating in 2022, plus five States that have confirmed voluntary participation from 2023 (Federated States of Micronesia, Maldives, St Vincent and the Grenadines, Timor Leste and Zimbabwe). Table 1 lists the 22 States of the APAC Region that have thus far notified their voluntary participation in CORSIA.

Table 1 — States in the APAC Region that have notified voluntary participation in CORSIA

Afghanistan	Marshall Islands	Republic of Korea
Australia	Micronesia (Federated States of) (*)	Singapore
Cook Islands	Nauru	Thailand
Indonesia	New Zealand	Timor-Leste (*)
Japan	Palau	Tonga
Kiribati	Papua New Guinea	Tuvalu
Malaysia	Philippines	Vanuatu
Maldives (*)		

(*) *Voluntary participation in CORSIA from 1 January 2023.*

3.3 It is important to note that, out of the 16 States of the APAC Region that are Small Island Developing States (SIDS), 13 of them have thus far notified their voluntary participation in CORSIA. While all States in the APAC Region are encouraged to voluntarily participate in CORSIA, as stated in Assembly Resolution A40-19, the notification of voluntary participation from those APAC SIDS that have not yet done so would convey a strong message of resolute action on the part of those States more vulnerable to the impacts of climate change.

3.4 States in the APAC Region that have not yet notified their voluntary participation in CORSIA are encouraged to consider the following aspects when considering such possibility:

- Additional CORSIA volunteer States would reinforce ICAO’s continued leadership in addressing emissions from international aviation;
- As CORSIA is designed to treat aeroplane operators on the same route equally, the more States participate in CORSIA, the more CO₂ emissions are covered in the scheme, and consequently the higher the scheme’s environmental effectiveness becomes;
- For States with particular interest in eco-tourism (e.g. island States), CORSIA participation provides the additional benefit of greening air transport connections with the rest of the world;
- States that voluntarily participate in CORSIA and require assistance will be given priority within the ACT-CORSIA capacity building and assistance programme;

- Participating in CORSIA will increase the demand for the emissions units to be purchased by aeroplane operators, thus increasing incentives to invest in emissions reduction projects in participating States;
- For States that do not have an operator, or with operators with very small emissions, there would be no compliance costs incurred for those States; and
- Due to the impact from COVID-19 and subsequent Council’s decision to safeguard CORSIA during the pilot phase, the latest experts analysis indicates that the cost impact of CORSIA during pilot phase would be negligible, if any, as the international aviation CO₂ emissions are not expected to recover to the 2019 baseline level until 2024 at the earliest (i.e. after CORSIA’s pilot phase).

3.5 States that decide to voluntarily participate in CORSIA in 2023 and have not informed ICAO yet should notify the Secretariat before 30 June 2022. A sample letter was made available through the March 2022 issue of the CORSIA Newsletter⁶.

4. CAPACITY BUILDING ON CORSIA

4.1 In June 2018, upon adoption of the first edition of Annex 16, Volume IV, ICAO launched the ACT-CORSIA (Assistance, Capacity-building and Training for CORSIA) programme as part of the *No Country Left Behind* initiative, with the aim to assist States in CORSIA implementation through a “coordinated approach” under the umbrella of ICAO.

4.2 Buddy partnerships among States are the cornerstone of the ACT-CORSIA programme. At the time of publication of this working paper, the partnerships involve 16 supporting States and 118 requesting States. Regarding the implementation of the ACT-CORSIA programme in the APAC Region, 32 States in the APAC Region are currently participating in ACT-CORSIA buddy partnerships, as detailed in Appendix B to this paper.

4.3 The impact of the COVID-19 pandemic since early 2020 has led to an adjustment in the activities undertaken under the ACT-CORSIA buddy partnerships, with the transition to training activities in a virtual setting. Such transition has taken place without disruption of the partnerships, contributing to the successful implementation of CORSIA. Phase III of the ACT-CORSIA buddy partnerships is currently ongoing, with a focus on aspects relevant to the implementation of CORSIA in 2022, namely: the provision of total 2021 emissions for each aeroplane operator; the provision of aggregated figures for State pairs subject to offsetting requirements and for State pairs not subject to offsetting requirements; and the submission of information to claim emissions reductions from CORSIA Eligible Fuels (CEF).

4.4 The ICAO Secretariat has continued providing support to States for CORSIA implementation through a number of initiatives, namely: organization of thematic online sessions on matters such as CCR, verification activities, etc.; development of an online version (virtual classroom) of the CORSIA Verification Course to train more verification bodies on CORSIA; and the development and update of online outreach materials, including: the monthly CORSIA Newsletter; the CORSIA Frequently Asked Questions; and online tutorials such as *Navigating CORSIA - A guide to the scheme’s design and implementation*.

⁶ March 2022 issue of the CORSIA Newsletter can be accessed [here](#).

5. COVID-19 IMPACTS AND 2022 CORSIA PERIODIC REVIEW

5.1 Following the outbreak of the COVID-19 pandemic in early 2020, the ICAO Council decided, in June 2020, that in order to safeguard against inappropriate economic burden on aeroplane operators, 2019 emissions shall be used for 2020 emissions for three CORSIA design features (the CORSIA baseline; the reference year for calculating offsetting requirements; and the new entrant threshold) during the CORSIA pilot phase from 2021 to 2023. The Council also initiated the process for establishing the 2022 periodic review of CORSIA, as requested by paragraph 17 to Resolution A40-19.

5.2 In March 2021, the ICAO Council agreed on the process and Terms of Reference for the 2022 CORSIA periodic review. In accordance with the agreed process, a State letter consultation process took place to collect input from States on their experiences regarding CORSIA implementation (State letter ENV 6/6 –21/33, issued on 7 May 2021). The results of this consultation process were considered by the ICAO Council November 2021.

5.3 ICAO maintains updated information on COVID-19 impacts and the 2022 CORSIA periodic review, including relevant decisions by the ICAO Council, the assessment of the impacts of COVID-19 on CORSIA, as well as other technical inputs provided to the ICAO Council in the context of the 2022 CORSIA periodic review⁷.

5.4 The 41st Session of the ICAO Assembly will consider the outcome of the 2022 CORSIA periodic review, subject to the completion of the process by the ICAO Council under the current 226th Session, including the consideration on the definition of the CORSIA baseline after the pilot phase.

6. NEXT STEPS FOR CORSIA IMPLEMENTATION

6.1 CORSIA implementation requires the following milestones to be met in 2022:

- 30 April 2022: aeroplane operators and verification bodies shall submit the verified Emissions Reports for year 2021 to the corresponding States;
- 30 June 2022: deadline for States to notify ICAO of their decision to voluntarily participate in CORSIA in 2023; and
- 31 July 2022: deadline for States to submit 2021 CO₂ emissions data to ICAO through the CORSIA Central Registry.

6.2 In order for States to be able to take all the necessary steps for CORSIA implementation, it is imperative that States appoint CORSIA Focal Points, as per State letter ENV 6/6-18/1, in order to facilitate communication between the Secretariat and the nominated CORSIA Focal Points. In the event of a change of CORSIA Focal Point, States are required to inform the ICAO Secretariat through an official communication with reference to State letter ENV 6/6-18/1.

⁷ <https://www.icao.int/environmental-protection/CORSIA/Pages/CORSIA-and-Covid-19.aspx>

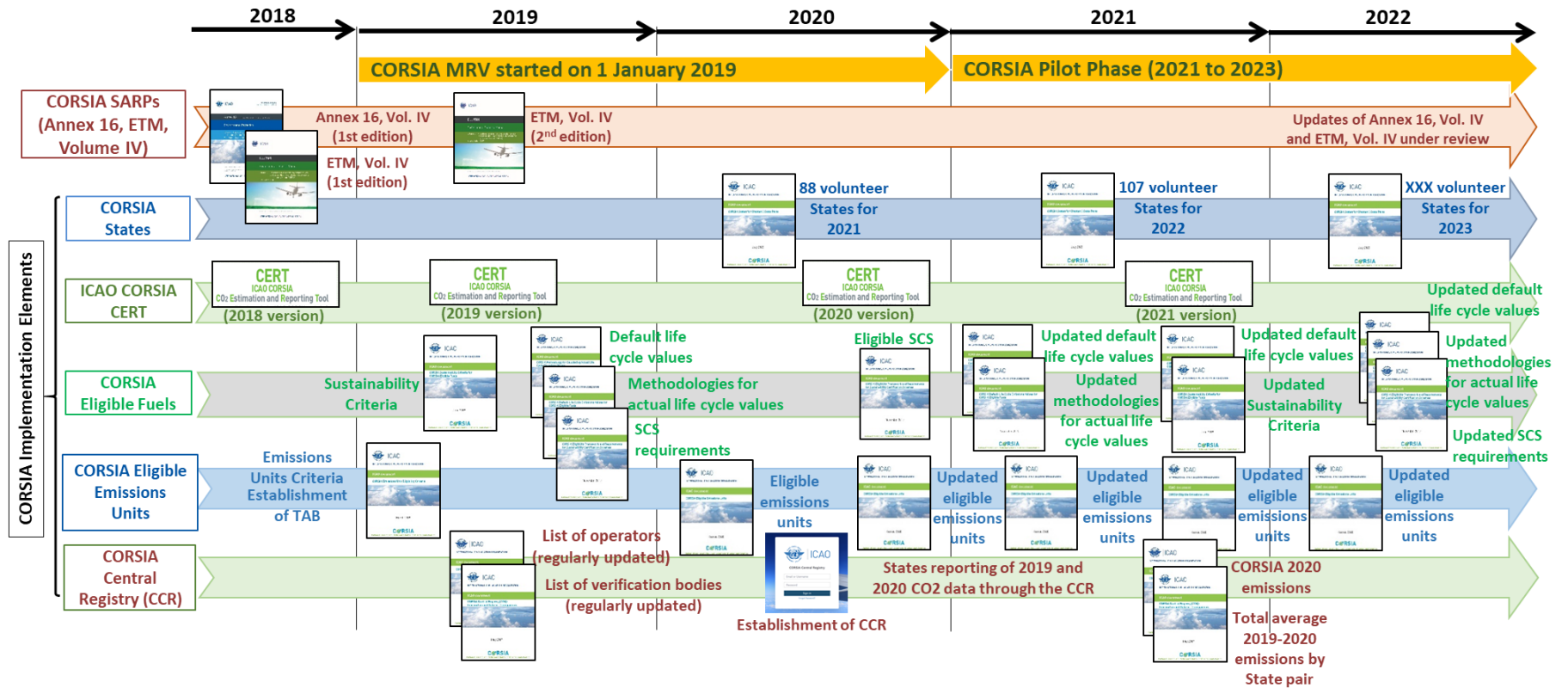
7. **ACTION BY THE CONFERENCE**

7.1 The Conference is invited to:

- a) Encourage States in the APAC Region to submit the report of 2021 CO₂ emissions through the CORSIA Central Registry, prior to the deadline of 31 July 2022;
- b) Encourage States in the APAC Region already participating in the ACT-CORSIA buddy partnerships to continue to do so, and invite States not yet participating, to join the programme; and
- c) Consider voluntary participation in CORSIA from 1 January 2023.

APPENDIX A

COMPLETION AND MAINTENANCE OF ESSENTIAL COMPONENTS FOR CORSIA IMPLEMENTATION (2018 – 2022)



APPENDIX B

**ESTABLISHED ACT-CORSIA BUDDY PARTNERSHIPS
INVOLVING STATES IN THE APAC REGION**

Note — All established ACT-CORSIA Buddy Partnerships are listed in the ICAO CORSIA website [here](#).

Requesting State	Supporting State
Afghanistan	Japan
Bangladesh	Japan
Bhutan	Japan
Brunei Darussalam	Australia
Cambodia	Japan
Cook Islands	Singapore
Fiji	New Zealand
Indonesia	Australia
Kiribati	Singapore
Lao People's Democratic Republic	Republic of Korea
Malaysia	Japan
Marshall Islands	Singapore
Mongolia	Republic of Korea
Myanmar	Japan
Nauru	Australia
Pakistan	Republic of Korea
Palau	Singapore
Papua New Guinea	Australia
Philippines	Republic of Korea
Samoa	New Zealand
Solomon Islands	New Zealand
Sri Lanka	Australia
Thailand	Australia
Tonga	Singapore
Tuvalu	Singapore
Vanuatu	New Zealand
Viet Nam	Republic of Korea