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INTERNATIONAL CIVIL AVIATION ORGANIZATION

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CORSIA Emissions Units and the CORSIA Central Registry (CCR)

ICAO-CASSOA-RCAA ENV Workshop

Kigali, Rwanda (23-26 May 2023)

Ms. Chinga Mazhetese

Regional Officer: Environment/ Meteorology

ICAO ESAF Office, Nairobi





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- The five (5) CORSIA Implementation Elements

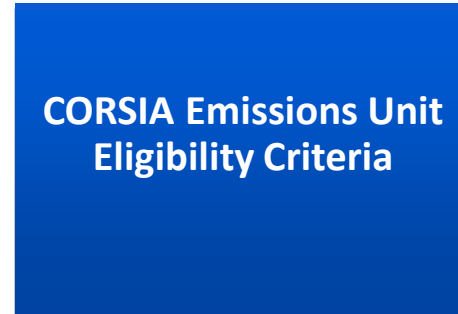
- CORSIA States for Chapter 3 State Pairs;
- ICAO CORSIA CO₂ Estimation and Reporting Tool (CERT)
- CORSIA Eligible Fuels
- **CORSIA Eligible Emissions Units**
- **CORSIA Central Registry (CCR)**



All Documents are on the ICAO
CORSIA Website www.icao.int



CORSIA Eligible Emissions Units – 2 ICAO Documents



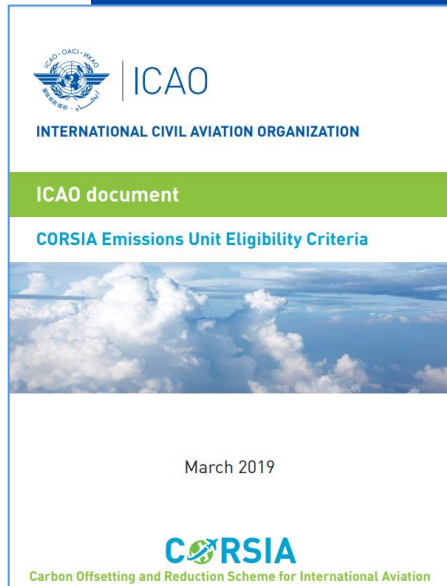
The ICAO CORSIA Implementation Element “CORSIA Eligible Emissions Units” is reflected in two ICAO documents referenced in Annex 16, Volume IV .

Available on the ICAO
CORSIA website



CORSIA Eligible Emissions Units – Doc 1

CORSIA Emissions Unit Eligibility Criteria



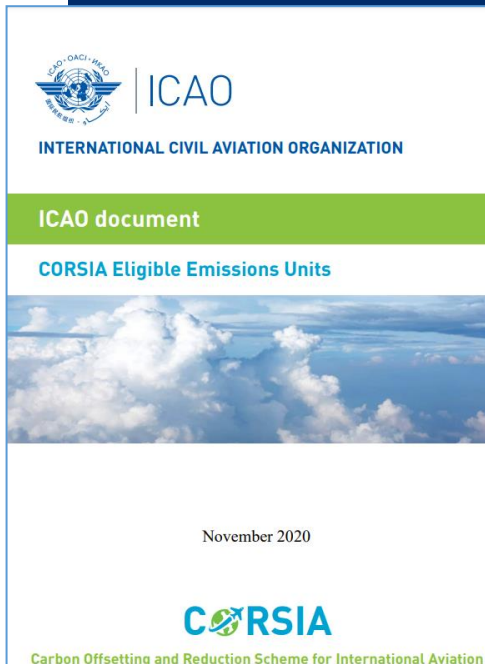
CORSIA Emissions Unit Eligibility Criteria

- approved by the ICAO Council, included in the ICAO document entitled "**CORSIA Emissions Unit Eligibility Criteria**", available on the ICAO CORSIA website.
- applied to address environmental and social integrity
- **Examples of the Eligibility Criterion:**
 - Carbon offset credits must be quantified, monitored, reported and verified;
 - Carbon offset credits must have a clear and transparent chain of custody within the offset program; and
 - Carbon offset credits must represent emissions reductions, avoidance, or carbon sequestration from projects that do no net harm.



CORSIA Eligible Emission Units –Doc 2

CORSIA Eligible Emissions Units



Emissions Units

- CORSIA calls for international aviation to offset part of its CO₂ emissions through the reduction of emissions elsewhere (outside of the international aviation sector),

involving the concept of "emissions units".

One emissions unit represents one tonne of CO₂ emissions reduced.

-generated when emissions from a specific project or programme are reduced, compared to a baseline (or business-as-usual), through the implementation of emission reductions techniques/technologies.

These projects or programmes can be implemented in various sectors, *electricity generation, industrial processes, agriculture, forestry, waste management etc.*

Emissions units are sometimes also referred to as **carbon credits**



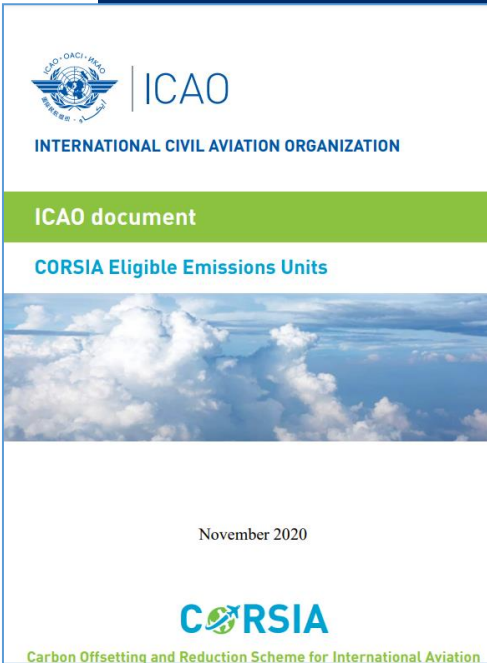
CORSIA Eligible Emission Units –Doc 2 Cont.

CORSIA Eligible Emissions Units

-are only those units described in the ICAO document entitled “CORSIA Eligible Emissions Units”,
 -which meet the CORSIA Emissions Unit Eligibility Criteria contained in the ICAO document entitled “CORSIA Emissions Unit Eligibility Criteria” .
 These ICAO documents are available on the ICAO CORSIA website.

CORSIA Eligible Emissions Units

CORSIA Eligible Fuels



CORSIA ELIGIBLE EMISSIONS UNITS		The Gold Standard (GS)	
<p>The following Emissions Unit Programmes are approved by the ICAO Council to supply CORSIA Eligible Emissions Units. This ICAO document also identifies the registries designated by CORSIA Eligible Emissions Unit Programmes for the purpose of fulfilling the provisions set out in the CORSIA-related ICAO Standards and Recommended Practices¹. CORSIA Eligible Emissions Units are identified as such by each Emissions Unit Programme, according to each programme’s respective Scope of Eligibility referred to in this ICAO document, including to reflect Eligible Unit Dates and any specifications regarding activity² and/or unit types, methodologies, programme elements, and/or procedural classes.</p>		<p>Programme-designated Registry: GSF Impact Registry³ https://registry.goldstandard.org/projects?q=&page=1</p>	
<p>American Carbon Registry (ACR)</p>		<p>Eligibility Timeframe: Eligible for cancellation for use toward CORSIA offsetting requirements in the 2021 – 2023 compliance cycle</p>	
<p>Programme-designated Registry:</p>	<p>ACR Registry³ https://americancarbonregistry.org/how-it-works/membership</p>	<p>Eligible Unit Dates: Issued to activities that started their first crediting period from 1 January 2016⁴ and in respect of emissions reductions that occurred through 31 December 2020</p>	
<p>Eligibility Timeframe:</p>	<p>Eligible for cancellation for use toward CORSIA offsetting requirements in the 2021 – 2023 compliance cycle</p>	<p>Scope of Eligibility: The Gold Standard verified emissions reductions (VERs), including any additional certifications, and with the exclusion of the following activity and/or unit types, methodologies, programme elements, and/or procedural classes:</p>	
<p>Eligible Unit Dates:</p>	<p>Issued to activities that started their first crediting period from 1 January 2016⁴ and in respect of emissions reductions that occurred through 31 December 2020</p>	<p>a) Planned Emission Reductions (PERs)</p>	
<p>Scope of Eligibility:</p>	<p>ACR Emission Reduction Tonnes (ERTs), including any additional certifications, and with the exclusion of the following activity and/or unit types, methodologies, programme elements, and/or procedural classes:</p> <ul style="list-style-type: none"> a) California Registry Offset Credits (ROCs) b) California Early Action Offset Credits (EAOCs) c) ERTs issued to all activities that are developed in REDD+ countries⁵ and utilize methodologies in the programme’s Sectoral Scope 3 (Land Use, Land Use Change and Forestry) category and are estimated⁶ to generate greater than 7,000 Emission Reduction Tonnes (ERTs) / annum individually or grouped. 	<p>b) Units issued from micro scale activities where an accredited entity has not carried out validation and verification</p>	
		<p>c) VERs issued to all activities that are developed in REDD+ countries⁵ and utilize methodologies in the programme’s Land Use and Forestry & Agriculture categories and are estimated⁶ to generate greater than 7,000 Verified Emissions Reductions (VERs) / annum individually or grouped, with the allowable exception of activities that utilize methodologies in the Soil Organic Carbon, Agriculture, and Livestock categories.</p>	



CORSIA Central Registry – CCR



<https://ccr.icao.int/Account/Login?returnUrl=%2FHome>



CORSIA Central Registry (CCR)– *5 ICAO Documents*



**CORSIA
Central Registry:
Information and Data
for the Implementation
of CORSIA**

**CORSIA Aeroplane to
State Attributions**

CORSIA 2020 Emissions

**CORSIA Annual Sector's
Growth Factor (SGF)**

**CORSIA Central Registry
(CCR): Information and
Data for Transparency**

Available on the ICAO
CORSIA website



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CORSIA Central Registry 1

**CORSIA Central Registry:
Information and Data for
the Implementation of
CORSIA**

CORSIA Central Registry: Information and Data for the Implementation of CORSIA

This document is an umbrella document that provides information to support implementation of CORSIA.

It includes the following ICAO documents:

- *ICAO document “CORSIA Aeroplane Operator to State Attributions”*
- *ICAO document “CORSIA 2020 Emissions”*
- *ICAO document “CORSIA Annual Sector’s Growth Factor (SGF)”*

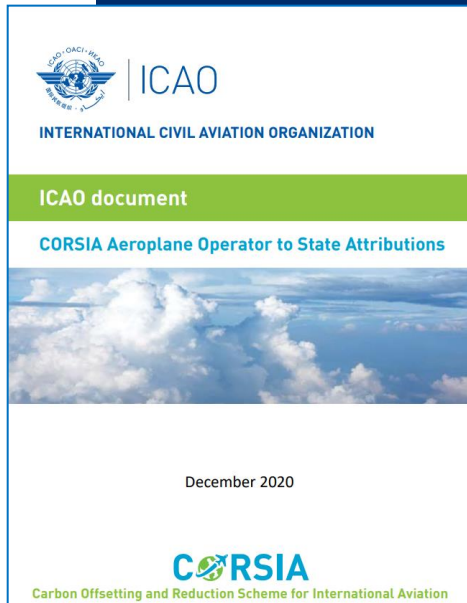




CORSIA Central Registry 2

CORSIA Central Registry

CORSIA Aeroplane Operator to State Attributions



CORSIA Aeroplane Operator to State Attributions

Contains information from States on the Aeroplane Operators attributed to them.

Includes:

- State Name;
- Aeroplane Operator Name;
- Attribution Method;
- Identifier

ICAO document — CORSIA Aeroplane Operator to State Attributions Dec 2020

CORSIA Aeroplane Operator to State Attributions

Last updated: 16 Dec 2020

State	Aeroplane Operator Name	Attribution Method	Identifier
Afghanistan*	Kam Air	Air Operator Certificate	001
Albania	ALBAWINGS	ICAO Designator	AWT
Algeria*	Air Algérie	Air Operator Certificate	TA/001/1998
Algeria*	Tassili Airlines	Air Operator Certificate	TA/002/1998
Angola*	TAAG ANGOLA AIR LINES	ICAO Designator	DTA
Antigua and Barbuda	LIAT (1974) LTD	Air Operator Certificate	2A/12/003A
Argentina	Aerolíneas Argentinas S.A	ICAO Designator	ARG
Argentina	Austral Líneas Aéreas (Cielos Del Sur S.A)	ICAO Designator	AUT
Argentina	LAN Argentina S.A	ICAO Designator	DSM
Armenia	Aircompany Armenia LLC	ICAO Designator	NGT
Australia*	Jetstar Airways Pty Ltd	ICAO Designator	JST
Australia*	Qantas Airways Ltd	ICAO Designator	QFA
Australia*	Tasman Cargo Airlines Pty Ltd	ICAO Designator	TMN
Australia*	Virgin Australia International Airlines Pty Ltd	ICAO Designator	VAU
Austria	Altenstein Luftfahrt GmbH	ICAO Designator	PEV
Austria	Austrian Airlines AG	ICAO Designator	AUA
Austria	Avcon Jet AG	ICAO Designator	AOJ
Austria	Easyjet Europe Airline GmbH	ICAO Designator	EJU
Austria	International Jet Management GmbH	ICAO Designator	IJM
Austria	Lauda Motion GmbH	ICAO Designator	LDM
Austria	Level Europe GmbH	ICAO Designator	FOO
Austria	MJET GmbH	ICAO Designator	MJF
Azerbaijan*	"Silk Way Airlines" LLC	ICAO Designator	AZQ



CORSIA Central Registry 3

CORSIA 2020 Emissions

CORSIA 2019 Emissions

This ICAO document will include:

the total international aviation CO₂ emissions in 2019.

The document will become available, following approval by the ICAO Council, as soon as practicable

during the second half of 2021.



CORSIA Central Registry 4

CORSIA Annual Sector's Growth Factor (SGF)

The Growth Factor changes every year taking into account both the sectoral and the individual operator's emissions growth. The Growth Factor is the percent increase in the amount of emissions from the baseline to a given future year. It is calculated by ICAO.

CORSIA Annual Sector's Growth Factor (SGF)

The document will include the Sector's Growth Factor for a given year y starting in 2021 (SGF $_y$).

The first edition of this ICAO document, containing Sector's Growth Factor for year 2021, became available, following approval by the ICAO Council, by 31 October 2022.

Recall: How do we calculate the SGF?

$$\frac{(SE_y - SE_{B,y})}{SE_y}$$

where SE_y = Total sectoral CO₂ emissions covered by 3.1 in the given year y and $SE_{B,y}$ = Average total annual sectoral CO₂ emissions during 2019 and 2020 covered by 3.1 in the given year y .



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CORSIA Central Registry 5

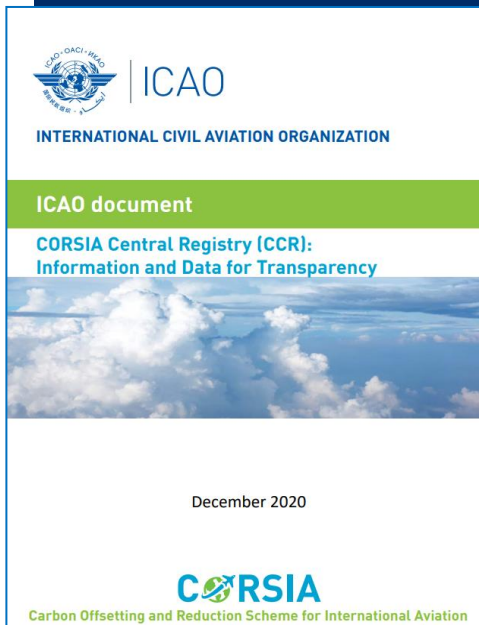
CORSIA Central Registry

CORSIA Central Registry (CCR): Information and Data for Transparency

CORSIA Central Registry (CCR): Information and Data for Transparency

This ICAO document provides information that is required to be published in order to ensure transparency.

-contains the list of Verification Bodies Accredited in each State (**currently available**);



ICAO document — CORSIA Central Registry: Information and Data for Transparency Dec 2020

Verification Bodies Accredited in States

Last updated: 16 Dec 2020

State	Verification Body Name
Afghanistan*	TUV India Pvt. Ltd
Algeria*	VERIFAVIA (Singapore) Pte.ltd
Austria	TÜV SÜD Landesgesellschaft Österreich GmbH
Canada*	Brightspot Climate Inc.
Chile	SGS TECNOS, S.A.U.
Chile	Verifavia (Singapore) Pte Ltd
China	Second Research Institute of Civil Aviation Administration of China
China	China Classification Society Certification Company (CCSC)
China	China Quality Certification Centre
China	Beijing Capital Airport Energy Saving Technology Service Co. Ltd
China	Tianjin CAUC Zhongtian Science and Technology Development Co. Ltd
China	Guangzhou CEPREI Certification Body
China	Shenzhen CTI International Certification Co., Ltd.
Costa Rica	INTECO
Czechia	VERIFIKACE CZ
France	E&Y Associés
France	VERIFAVIA SARL
Germany	ETSVerification GmbH
Germany	Müller-BBM Cert GmbH
Germany	KPMG Cert GmbH
Greece	TÜV AUSTRIA HELLAS Ltd
Greece	EMICERT CERTIFICATION SERVICES LIMITED
Greece	EUROCERT SA
India	M/s Bureau Veritas India Pvt. Ltd.
India	TUV India Pvt. Ltd.
Indonesia	PT. TUV Rheinland Indonesia
Japan	NIPPON KAIJI KYOKAI
Latvia	Bureau Veritas Latvia
Lithuania	VERIFAVIA (UK) Ltd
Mexico*	Asociación de Normalización y Certificación A.C.
Mexico*	ADDERE SOLUTIONS, S.C.



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CORSIA Central Registry 5

CORSIA Central Registry (CCR): Information and Data for Transparency



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ICAO document

CORSIA Central Registry (CCR):
Information and Data for Transparency



December 2020

CORSIA

Carbon Offsetting and Reduction Scheme for International Aviation

CORSIA Central Registry (CCR): Information and Data for Transparency

- **Some of the other information that will be made available:**
- Total average CO₂ emissions for 2019 and 2020 aggregated for all aeroplane operators on each State pair;
- Total annual CO₂ emissions aggregated for all aeroplane operators on each State pair, with identification of State pairs subject to offsetting requirements;
- **For each aeroplane operator:**
- Aeroplane operator name;
- State in which aeroplane operator is attributed;
- Reporting year;
- Total annual CO₂ emissions;
- Total annual CO₂ emissions for State pairs subject to offsetting requirements; and
- Total annual CO₂ emissions for State pairs not subject to offsetting requirements.



CORSIA Central Registry – additional resource

icaoint/environmental-protection/CORSIA/Pages/ccr-materials.aspx

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- ENV Homepage
- CORSIA Homepage
- CORSIA IMPLEMENTATION**
- A39-3
- Annex 16 Volume IV
- ETM - Volume IV
- CORSIA Implementation Elements
- Additional Material for CORSIA Implementation
- ACT CORSIA**
- Buddy Partnerships
- Example Regulatory Framework
- FAQs
- Brochure and Leaflets
- Videos
- Seminars
- Online Tutorials
- Background Information

CORSIA Central Registry Materials

The CORSIA Central Registry (CCR) to be used to submit CORSIA-specific information and data to ICAO 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)	PDF
Quick guide A: Introduction to the CCR	PDF
Quick guide B: Reporting on aeroplane operators	PDF
Quick guide C: Reporting on verification bodies	PDF
Quick guide D: Reporting on CO2 emissions (2019 and 2020)	PDF

CSV Templates (used to upload data onto the CCR)	Link
Aeroplane Operators	CSV
Verification Bodies	CSV
CO2 emissions (State pairs)	CSV

CORSIA Central Registry

New dedicated webpage on the CCR containing all the information related to the CCR

- Direct access to the CCR
- Access to the training version
- CCR user Manuel
- Templates
- Seminars presentations on CCR
- ...



Thank You