Introduction to the CORSIA Central Registry (CCR)

ICAO Secretariat

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Mandate for the CCR

- Assembly Resolution A39-3, paragraph 20 g):
  - "the Council to establish a consolidated central registry under the auspices of ICAO, for operationalization no later than 1 January 2021"
- Annex 16, Volume IV:
  - The CORSIA Central Registry is one of the five implementation elements of CORSIA
- Assembly Resolution A40-19, paragraph 19 b) and 19 d):
  - "the Council, with the technical contribution of CAEP, to continue to develop and update the ICAO CORSIA documents referenced in Annex 16, Volume IV related to: … CORSIA Central Registry …"
  - "the Council to establish, by early 2020, and maintain the CORSIA Central Registry under the auspices of ICAO to enable the reporting of relevant information from Member States to ICAO"

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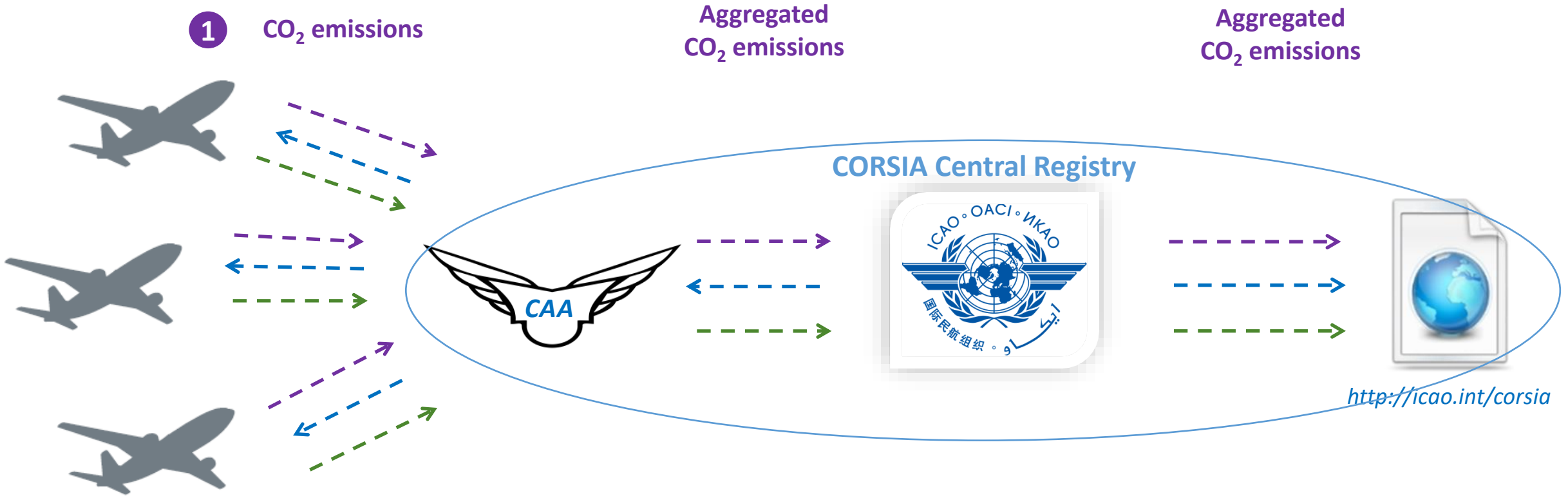
CORSIA General Information Flow

See leaflet 6



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Reporting by States

Information type	Baseline		Pilot Phase			First Phase		
	2019	2020	2021	2022	2023	2024	2025	2026
Aeroplane operators	✔ 2019-2020 data	✔ 2021 data	✔ 2022 data	✔ 2023 data	✔ 2024 data	✔ 2025 data	✔ 2026 data	✔ 2027 data
Verification bodies	✔ 2019-2020 data	✔ 2021 data	✔ 2022 data	✔ 2023 data	✔ 2024 data	✔ 2025 data	✔ 2026 data	✔ 2027 data
CO_2 emissions		✔ 2019 data	✔ 2020 data	✔ 2021 data	✔ 2022 data	✔ 2023 data	✔ 2024 data	✔ 2025 data
CORSIA eligible fuels*		Optional 2019 data	Optional 2020 data	✔ 2021 data	✔ 2022 data	✔ 2023 data	✔ 2024 data	✔ 2025 data
Cancelled emissions units							✔ 2021-2023 data	

* *Information on CORSIA eligible fuels can be reported annually or once at the end of each three-year cycle.*

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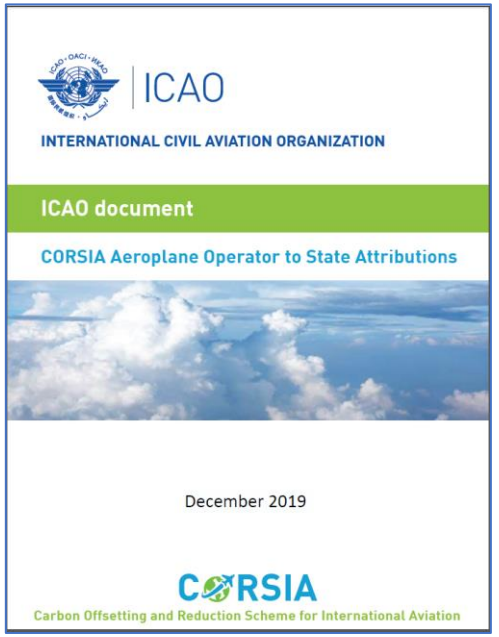
Information and Data from the CCR (1/2)

- Information and data for implementation:
  - ICAO Document "***CORSIA Central Registry (CCR): Information and Data for the Implementation of CORSIA***" contains:
    - ICAO Document "***CORSIA Aeroplane Operator to State Attributions***"
      - List of Aeroplane Operators and the State to which they are attributed
      - **Availability**: Fourth edition published in March 2020 (updated regularly)
    - ICAO Document "***CORSIA 2020 Emissions***"
      - Total 2020 CO_2 emissions to determine the first year in which a new entrant has offsetting requirements
      - **Expected availability**: 31 October 2021
    - ICAO Document "***CORSIA Annual Sector's Growth Factor***"
      - **Expected availability**: 31 October 2022 (to be updated annually)



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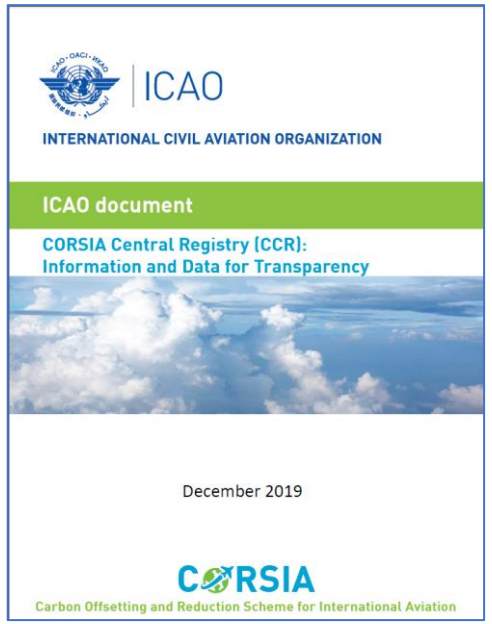
Information and Data from the CCR (2/2)

- Information and data for transparency:
  - ICAO Document "***CORSIA Central Registry (CCR): Information and Data for Transparency***" contains:
    - List of verification bodies accredited in each State
    - Total average CO_2 emissions for 2019 and 2020 aggregated for all aeroplane operators on each State pair route
    - Total annual CO_2 emissions aggregated for all aeroplane operators on each State pair (with identification of State pairs subject to offsetting requirements)
    - Information and data on CO_2 emissions for each aeroplane operator
    - Information and data on CORSIA eligible fuels claimed
    - Offsetting requirements and emissions units cancelled (at State and global aggregate level for a specific compliance period)

    - **Availability**: Fifth edition published in March 2020 (verification bodies data only - updated regularly)



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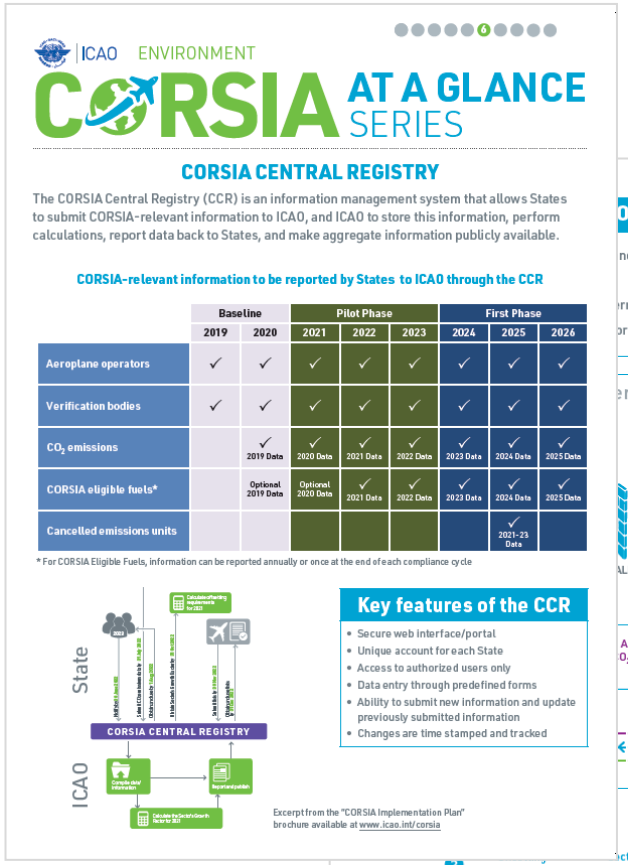
CORSIA Leaflets #6 and #7 on CCR



ICAO ENVIRONMENT

CORSIA AT A GLANCE SERIES

CORSIA CENTRAL REGISTRY

The CORSIA Central Registry (CCR) is an information management system that allows States to submit CORSIA-relevant information to ICAO, and ICAO to store this information, perform calculations, report data back to States, and make aggregate information publicly available.

CORSIA-relevant information to be reported by States to ICAO through the CCR

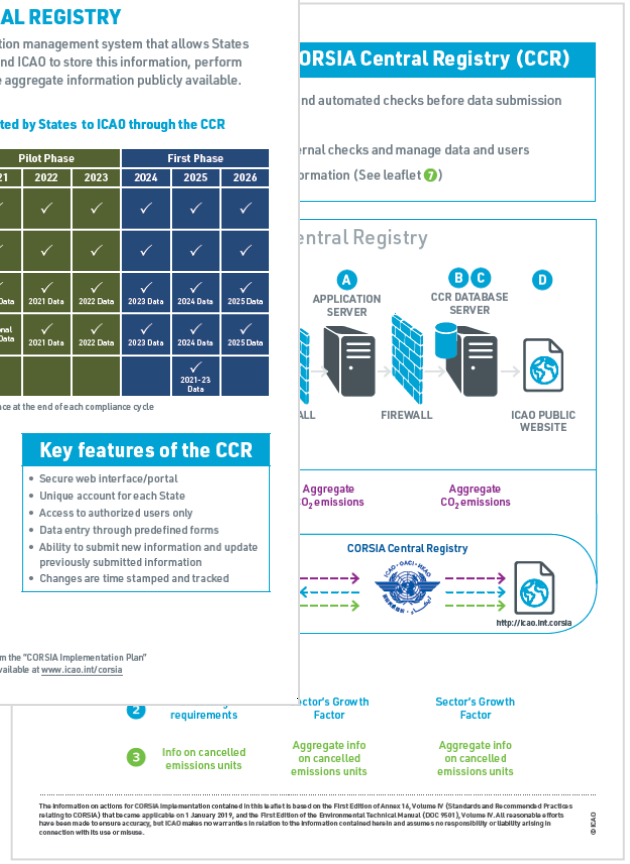
	Baseline		Pilot Phase			First Phase		
	2019	2020	2021	2022	2023	2024	2025	2026
Aeroplane operators	✓	✓	✓	✓	✓	✓	✓	✓
Verification bodies	✓	✓	✓	✓	✓	✓	✓	✓
CO_2 emissions		✓ 2019 Data	✓ 2020 Data	✓ 2021 Data	✓ 2022 Data	✓ 2023 Data	✓ 2024 Data	✓ 2025 Data
CORSIA eligible fuels*		Optional 2019 Data	Optional 2020 Data	✓ 2021 Data	✓ 2022 Data	✓ 2023 Data	✓ 2024 Data	✓ 2025 Data
Cancelled emissions units							✓ 2021-23 Data	

* For CORSIA Eligible Fuels, information can be reported annually or once at the end of each compliance cycle

Key features of the CCR

- Secure web interface/portal
- Unique account for each State
- Access to authorized users only
- Data entry through predefined forms
- Ability to submit new information and update previously submitted information
- Changes are time stamped and tracked

Excerpt from the "CORSIA Implementation Plan" brochure available at www.icao.int/corsia



ICAO ENVIRONMENT

CORSIA AT A GLANCE SERIES

PUBLICATION OF INFORMATION AND DATA FROM CORSIA CENTRAL REGISTRY

Information and data relating to CORSIA that are reported by States to ICAO through the CORSIA Central Registry (CCR) will be published on the ICAO website as five *ICAO CORSIA documents* grouped as follows: 1 **Information and Data for Implementation** *(4 documents)* and 2 **Information and Data for Transparency** *(1 document)*.

All *ICAO CORSIA documents* will be published following their approval by the ICAO Council.

1 INFORMATION AND DATA FOR IMPLEMENTATION

The ICAO document ***"CORSIA Central Registry (CCR): Information and Data for the Implementation of CORSIA"*** is the umbrella document that provides information to support implementation of CORSIA. It includes the following ICAO documents:

- ***"CORSIA Aeroplane Operator to State Attributions"*** contains a list of Aeroplane Operators and the State to which they are attributed (used to avoid duplication or reporting gaps).

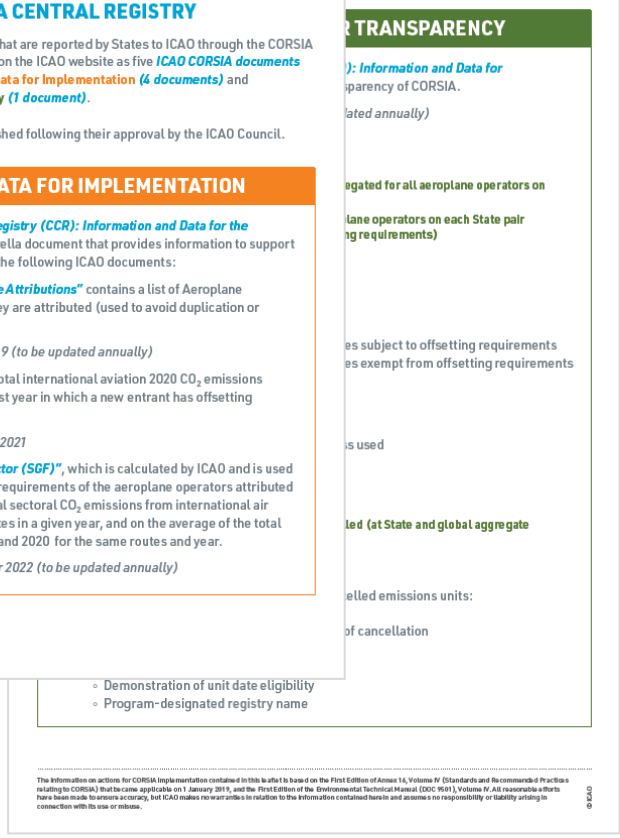
  Expected availability: 31 May 2019 (to be updated annually)

- ***"CORSIA 2020 Emissions"*** provides total international aviation 2020 CO_2 emissions that can be used to determine the first year in which a new entrant has offsetting requirements.

  Expected availability: 31 August 2021

- ***"CORSIA Annual Sector's Growth Factor (SGF)"***, which is calculated by ICAO and is used by States to calculate the offsetting requirements of the aeroplane operators attributed to them. The SGF is based on the total sectoral CO_2 emissions from international air routes between all participating States in a given year, and on the average of the total sectoral CO_2 emissions during 2019 and 2020 for the same routes and year.

  Expected availability: 31 October 2022 (to be updated annually)



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CCR Implementation

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Key Features of the CCR

The CORSIA Central Registry (CCR) has been implemented as an online and user-friendly web application that is hosted using Cloud services

One CCR account per State	• Authorized users only (nominated by the State) • Access to only one State account
Secure interface	• Password protection - Authentication protocol • Confidential data
Simple info/data entry	• Data entry through predefined forms • Manual (one by one) and bulk upload possible
Traceability and data integrity	• Time-stamped and recorded actions (who, what, when) • No deletions; in case of re-submission, archive previous version

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CCR User Groups/Roles

User Group/Role	Brief Description
CORSIA Focal Point (CFP)	A CORSIA Focal Point is nominated by his/her respective State. A CFP can upload and change State-specific data, and has the responsibility of approving and submitting the information and data to ICAO
State User (STU)	A user nominated by the CFP of a State with access to functions relating to uploading and changing State-specific data
ICAO Super User (ISU)	ICAO staff responsible for the management of the information and data in the CCR. The ISU checks the submissions by States for format correctness and prepares ICAO CORSIA documents

IMPORTANT !!!

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Year Records

- Information and data uploaded in the CCR are stored in **individual year records.** Each year record is associated with:
  - A specific State;
  - A specific reporting year or compliance period; and
  - A specific reporting area.

- For example, the record “CANADA-2019-Aeroplane Operators” will contain information and data for all aeroplane operators attributed to Canada for the year 2019.

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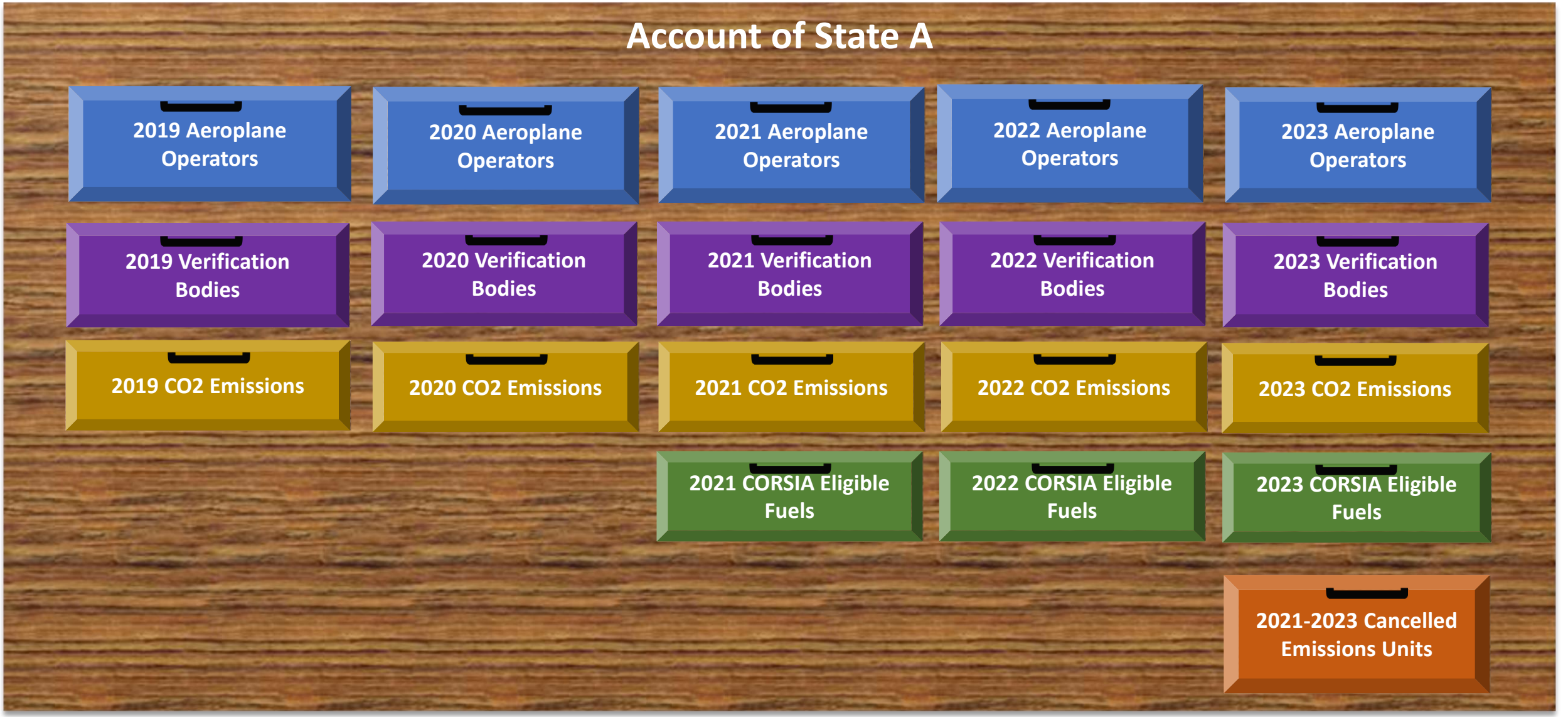
Year Records



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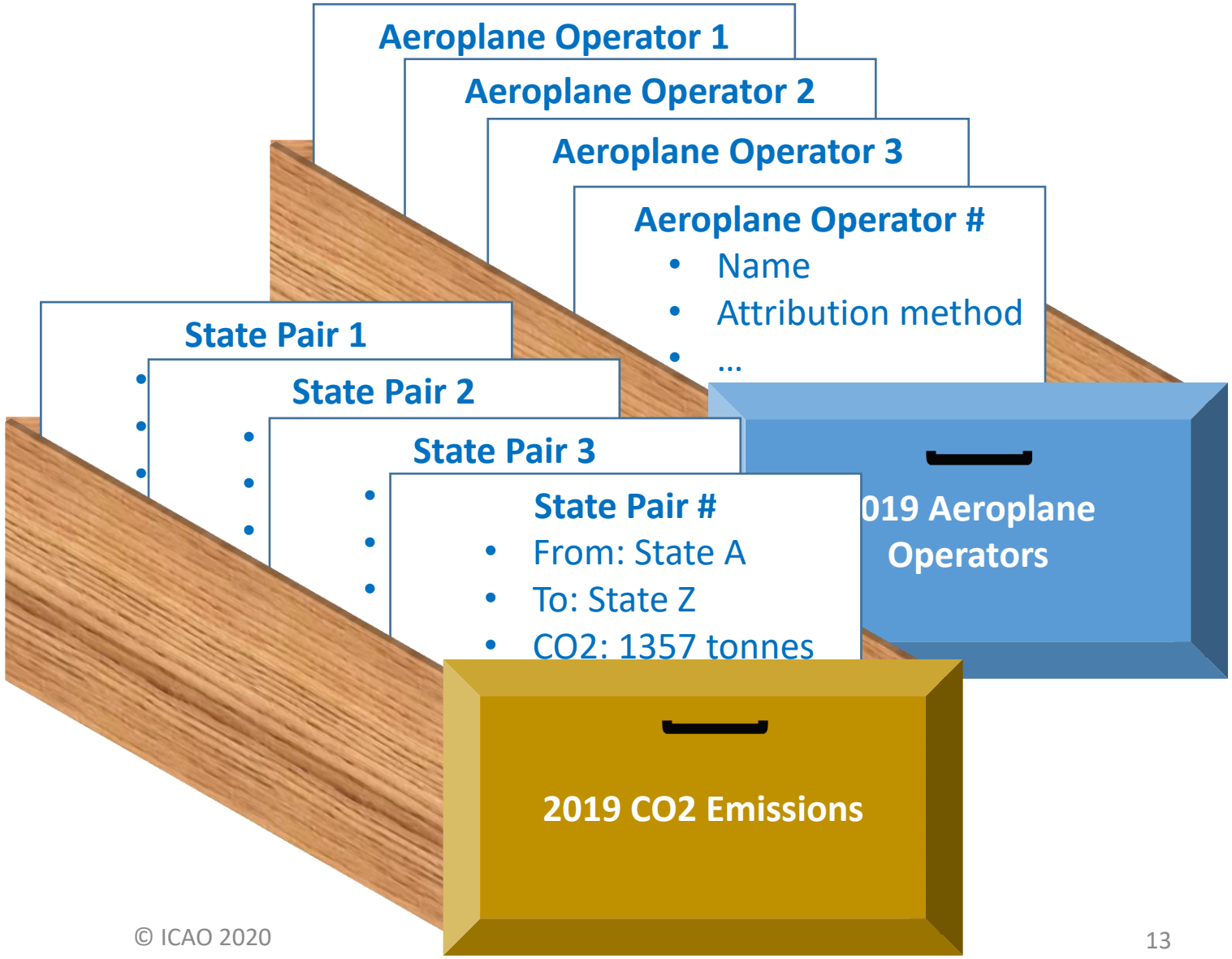
Information and Data in a Year Record

- Within each individual year record, the information and data are organized in “entries”. For example:
  - For aeroplane operators an entry is associated with a specific aeroplane operator
  - For CO_2 emissions, an entry is associated with a specific State pair etc.



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Year Record Status

IMPORTANT !!!

Status	Brief Description	Modifications allowed?
IN PROGRESS	A year record that can be modified by adding, editing or deleting information and data in specific entries; *Default status when a new year record is created*	Yes (CFP and STU)
COMPLETE	A year record, previously marked as IN PROGRESS, that is under review by the CFP	Yes (CFP only)
READY*	A year record, previously marked as COMPLETE, that has been reviewed by the CFP, has been submitted to ICAO, and waits for processing by the ISU	No**
LOCKED	A year record, previously marked as READY, that has been processed by the ISU and can be used to produce reports and calculations	No**

** READY (ICAO DATA) designates a record created by ICAO (if a State does not submit data)*

*** The ISU can release or unlock a READY or LOCKED record for further editing (at the request of a CFP) by changing the status to IN PROGRESS*

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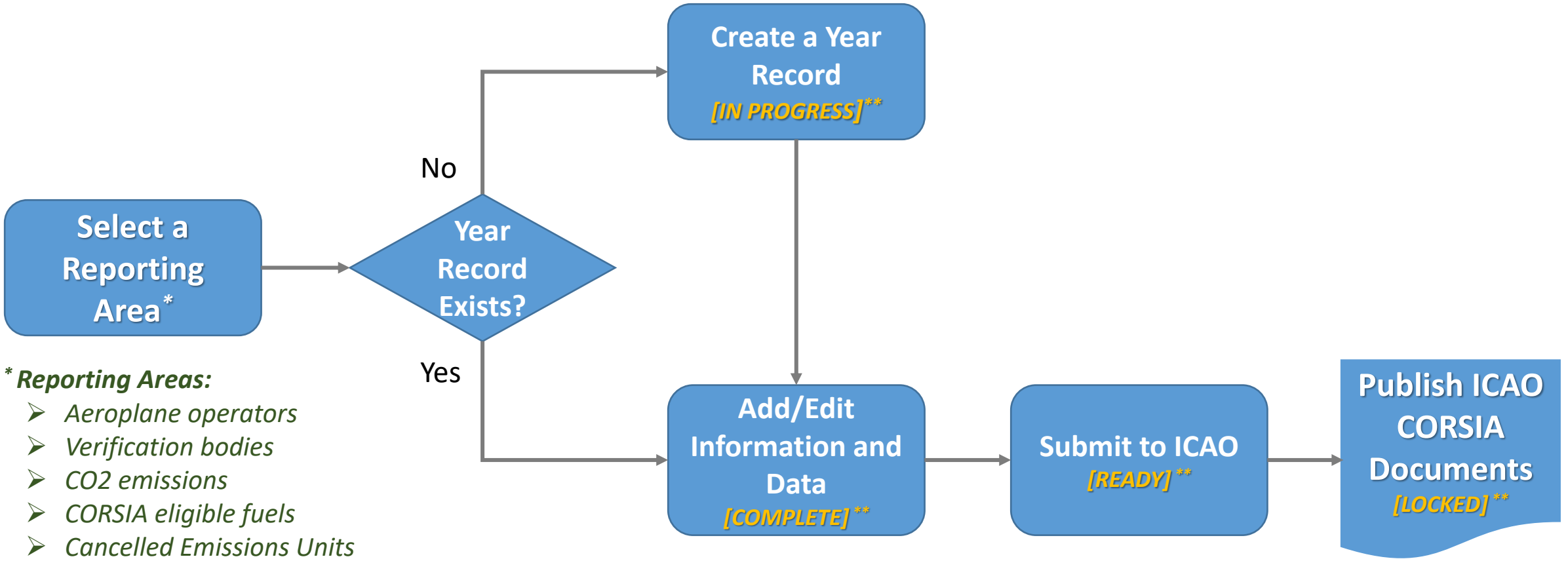
Simple Reporting Process



* ***Reporting Areas:***

- *Aeroplane operators*
- *Verification bodies*
- *CO2 emissions*
- *CORSIA eligible fuels*
- *Cancelled Emissions Units*

** ***Data Status***

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Selected CCR User Group Permissions

User Group	CCR Functions			
	Create Year Record	Add, Edit, Delete Info and Data	Submit to ICAO	Publish ICAO CORSIA Docs
CORSIA Focal Point (CFP)	✓	✓	✓	✗
State User (STU)	✗	✓	✗	✗
ICAO Super User (ISU)	✓	✓	N/A	✓

IMPORTANT !!!

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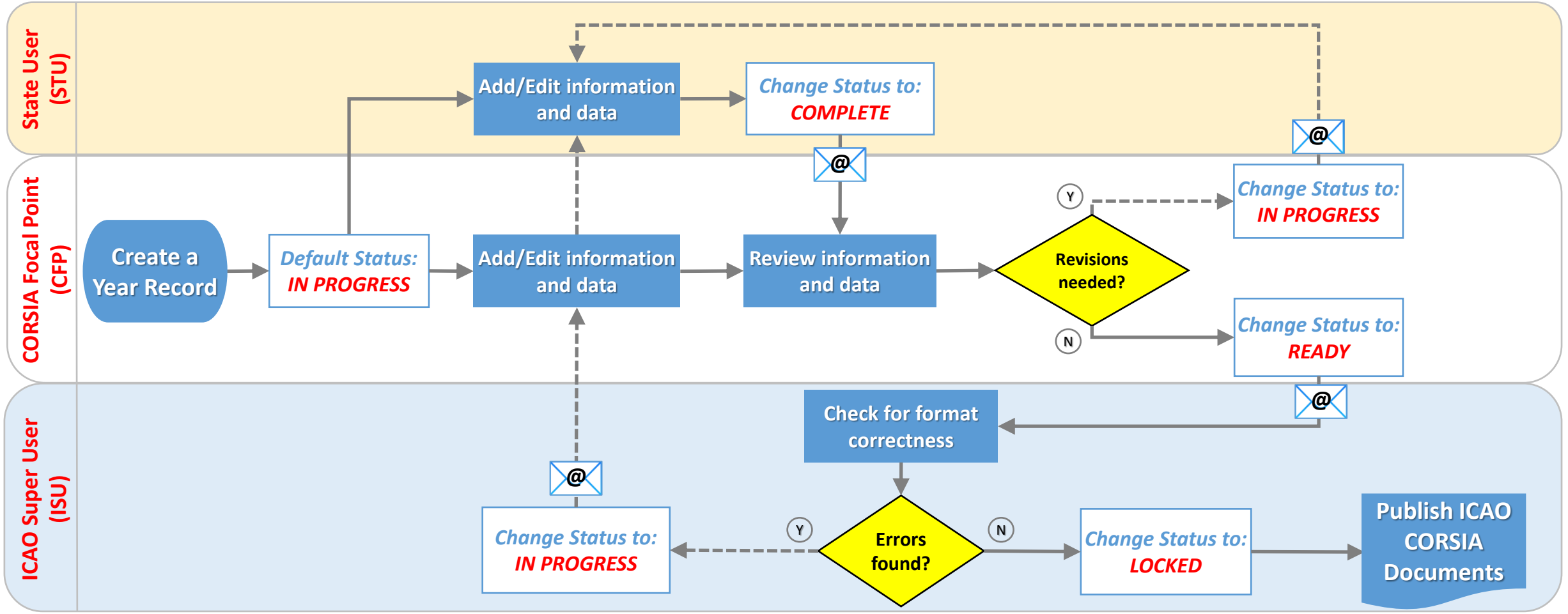
CCR Dataflow Process



@ Automatic email notification

IMPORTANT !!!

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Things to Remember

- Each CFP and STU is connected to one ICAO State and, therefore, does not have access to the information and data of any other ICAO State

- If an ICAO State does not provide its annual aggregated Emissions Report to ICAO, then ICAO provides data to fill the gaps and calculate the total sectoral CO_2 emissions and the Sector's Growth Factor in a given year, as per Annex 16, Volume IV
  - The information and data will be uploaded onto the CCR by the ISU, and the status of the year record will be set to “READY (ICAO DATA)”

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Things to Remember

- Year record status: IN PROGRESS → COMPLETE → READY → LOCKED
  - A COMPLETE record is read-only for a STU; the CFP can change the status of a record from COMPLETE to IN PROGRESS for further editing by the STU
  - A READY or LOCKED record is read-only for a CFP and STU; the ISU can change the status of a record from READY or LOCKED to IN PROGRESS for further editing at the request of a CFP

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CCR Quick Guide Series Leaflet A

ICAO ENVIRONMENT

CORSIA CENTRAL REGISTRY A

Quick Guide Series

INTRODUCTION TO CORSIA CENTRAL REGISTRY

The CORSIA Central Registry (CCR) is implemented as a web application supported by a database. It provides a simple and standardized way for States to upload and submit CORSIA-related information and data to ICAO, in accordance with the provisions of Annex 16, Volume IV.

Description of each User Group (Role) of the CCR

Each ICAO State has one CCR account. Access to this account is given to individuals, who are assigned a specific role as shown in the table below. The CCR allows for only one CORSIA Focal Point, but more than one State User, per State.

User Group/Role	Brief Description
CORSIA Focal Point (CFP)	A CCR user nominated by an ICAO State, who can upload and change State-specific information and data, and has the responsibility of approving and submitting the information and data to ICAO
State User (STU)	A CCR user nominated by the CFP of a State, who can upload and change State-specific information and data
ICAO Super User (ISU)	ICAO staff responsible for the management of the information and data in the CCR. The ISU checks the submissions by States for format correctness and prepares ICAO CORSIA documents

Selected CCR Functions per User Group (Role)

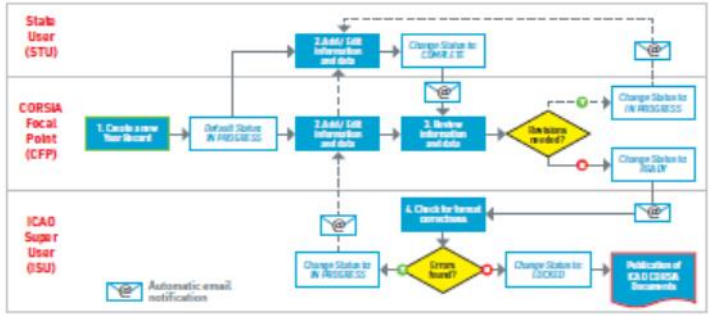
User Group/Role	CCR Functions: Create Year Record	Add, Edit, Delete Data	Submit Data to ICAO	Prepare ICAO CORSIA Documents
CORSIA Focal Point (CFP)	✓	✓	✓	✗
State User (STU)	✗	✓	✗	✗
ICAO Super User (ISU)	✓	✓	N/A	✓

For a general overview of the CCR, refer to **CORSIA AT A GLANCE SERIES LEAFLETS 6 & 7**

General CCR Dataflow Process

The CCR stores information and data in individual year records, which are associated with a specific State, reporting area (e.g., aeroplane operators, verification bodies, CO_2 emissions etc.) and reporting year. The general CCR dataflow process involves the following steps:

1. The CFP creates a specific year record:
   - *By default, the status of a new year record is set to IN PROGRESS*
2. The CFP and/or the STU populate the year record by adding or editing information and data:
   - *After editing is completed, the CFP/STU changes the status to COMPLETE*
3. The CFP reviews the information and data in the year record:
   - *If no revisions are needed, the CFP changes the status to READY to submit to ICAO*
   - *If revisions are needed, the CFP changes the status to IN PROGRESS*
4. The ISU checks the submitted year record for format correctness:
   - *If no errors are found, the ISU changes the status to LOCKED*
   - *If errors are found, the ISU changes the status to IN PROGRESS*



Summary of Year Record Status

Status	Brief Description	Editing allowed?
IN PROGRESS	A year record that can be populated by adding and/or editing information and data. This is the default status when a new year record is created	Yes (CFP and STU)
COMPLETE	A year record previously marked as IN PROGRESS, which has been populated, and is being reviewed by the CFP	Yes (CFP only)
READY	A year record previously marked as COMPLETE, which has been reviewed by the CFP and has been submitted to ICAO	No*
LOCKED	A year record previously marked as READY, which has been processed by ICAO. This year record can be used to produce ICAO CORSIA documents and make calculations	No*

* The ISU can release a READY record or unlock a LOCKED record for further editing at the request of a CFP

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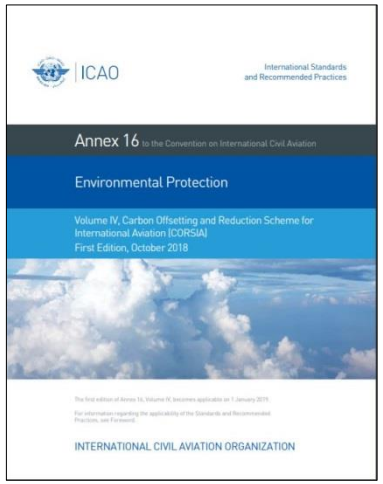

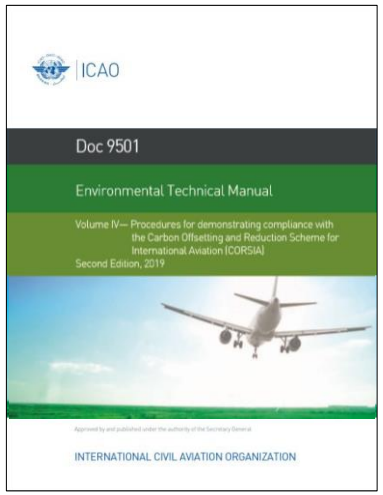

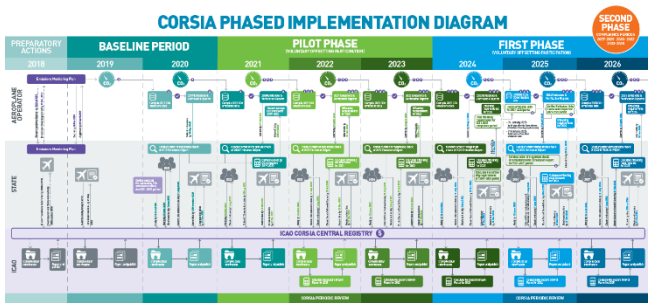

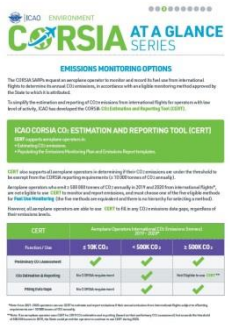

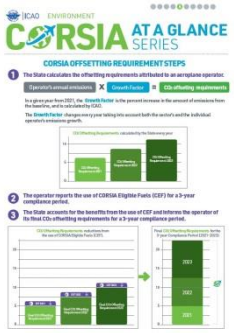

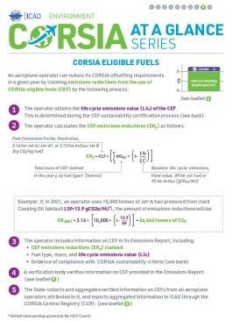

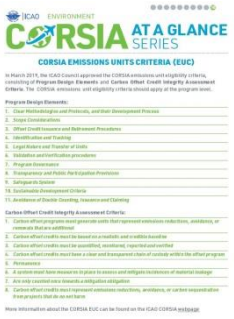

For more information, please visit our website: **http://www.icao.int/corsia**

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