



Information Meeting on the

Carbon Offsetting and Reduction Scheme for
International Aviation CORSIA

Implementation: Next steps

Alice Suri,
Bern, May 15th 2018

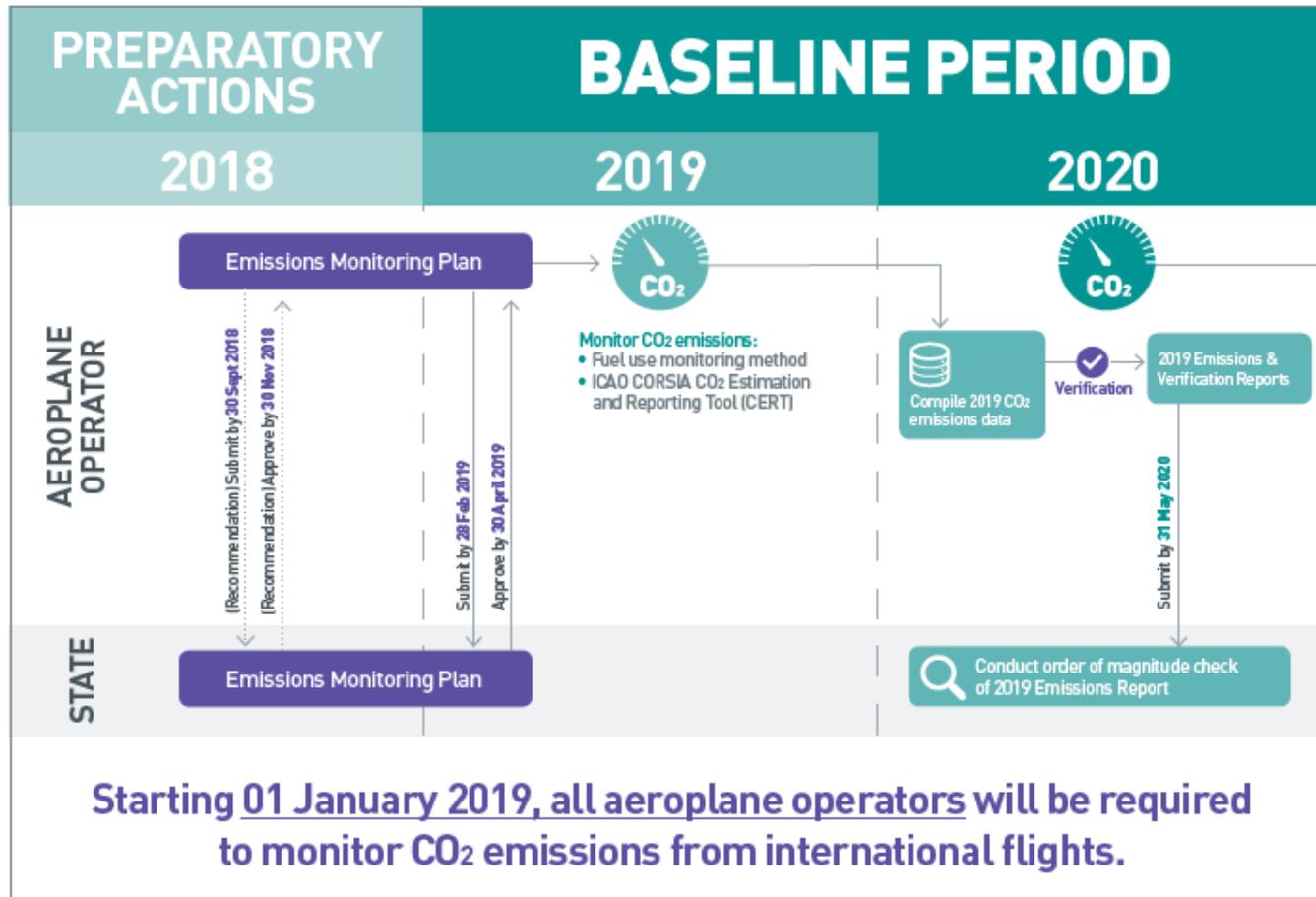


Content

1. Preparatory Actions 2018: Emissions Monitoring Plan (EMP)
2. Baseline Period 2019/2020: Monitoring
3. Baseline Period 2019/2020: Reporting/Verification
4. Next Steps

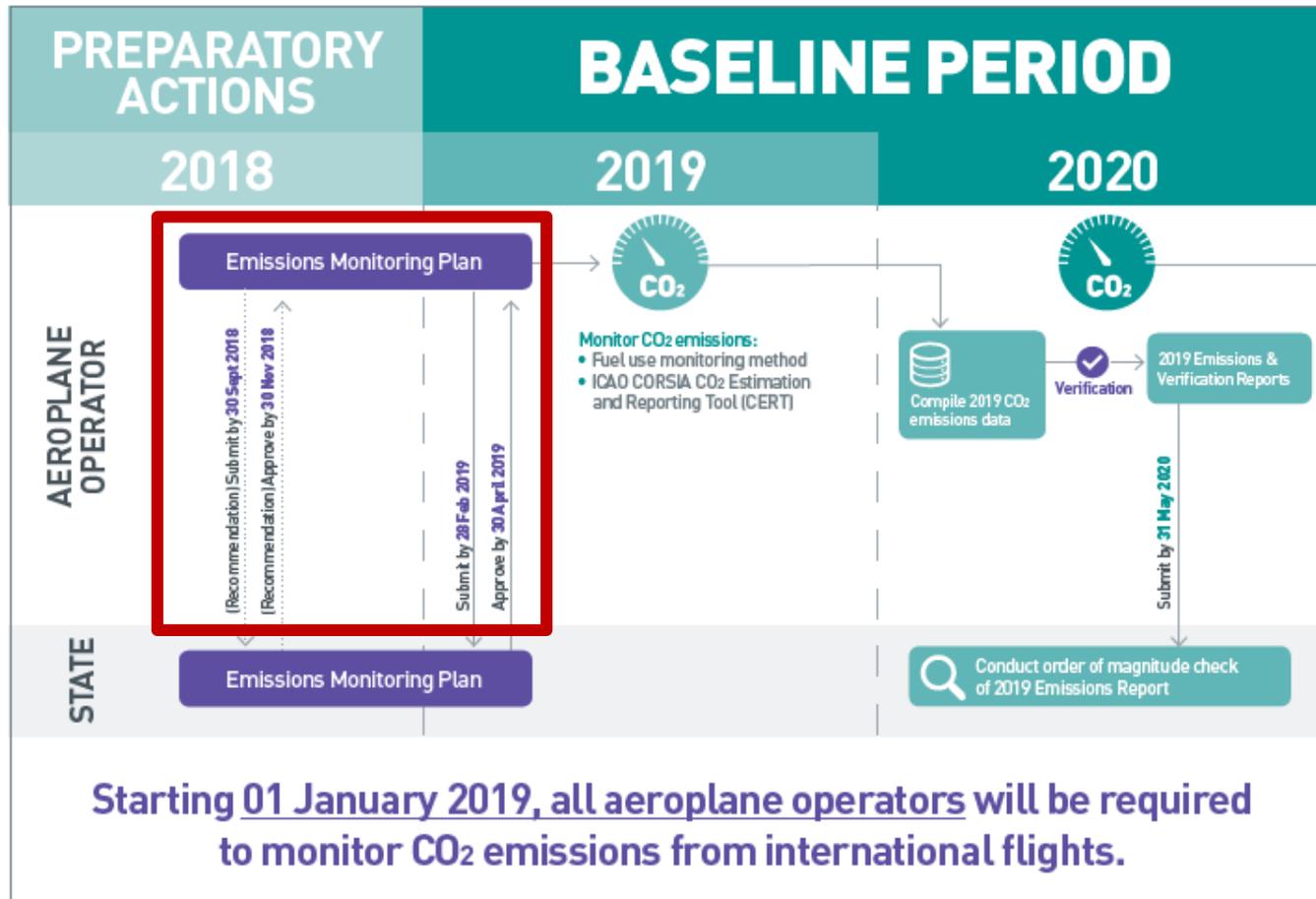


Preparatory Actions and Baseline Period 2018-2020





Preparatory Actions: Emissions Monitoring Plan





Emissions Monitoring Plan

- An Emissions Monitoring Plan (EMP) is a collaborative tool between the State and the aeroplane operator. The EMP:
 - Identifies the most appropriate means and methods for CO₂ emissions monitoring on an operator-specific basis; and
 - Facilitates the reporting of required information to the State.
- An aeroplane operator shall submit an EMP to the State to which it is attributed for approval.
- The State and aeroplane operator should maintain clear and open communication during the development and review of an EMP.

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Developing an Emissions Monitoring Plan

1

PREPARATION AND SUBMISSION

An aeroplane operator submits an Emissions Monitoring Plan for consultation and review by the State to which it is attributed.

- **Recommended timeframe:** submit by 30 September 2018.
- **Mandatory timeframe:** submit by 28 February 2019.

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Developing an Emissions Monitoring Plan

2

REVIEW AND APPROVAL

The State reviews and approves the Emissions Monitoring Plan.

- **Recommended timeframe:** approve by 30 November 2018.
- **Mandatory timeframe:** approve by 30 April 2019.

Note: If the aeroplane operator's Emissions Monitoring Plan is not fully aligned with the Emissions Monitoring Plan requirements in the CORSIA SARPs, the State shall collaborate with the aeroplane operator to resolve the outstanding issues.

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Developing an Emissions Monitoring Plan

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REVISIONS AND UPDATES

An aeroplane operator resubmits the Emissions Monitoring Plan for review and approval by the State if a material change is made to the information contained within the Emissions Monitoring Plan.

For example, a change to the information that would affect:

- The status or eligibility for an option under the emissions monitoring requirements;
- The approach to monitoring; or
- The State's oversight (e.g., change in corporate name / address).



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Contents of an Emissions Monitoring Plan*

1. Aeroplane operator identification
2. Fleet and operations data
3. Methods and means of calculating emissions from international flights
4. Data management, data flow and control

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***According to the draft CORSIA SARPs**



Aeroplane operator identification

EMP Contents
1. Aeroplane operator identification
2. Fleet and operations data
3. Methods and means of calculating emissions from international flights
4. Data management, data flow and control

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Aeroplane operator identification

EMP Contents

1. Aeroplane operator identification

2. Fleet and operations data

3. Methods and means of calculating emissions from international flights

4. Data management, data flow and control

- Name of the operator
- Information for attributing the operator to a State:
 - ICAO Designator;
 - Air operator certificate; or
 - Place of juridical registration
- Operator's ownership structure, including parent-subsidiary relationships
- Contact information, including operator's CORSIA Focal Point
- Description of the operator's activities

AIR OPERATOR CERTIFICATE		
STATE OF THE OPERATOR ¹		
ISSUING AUTHORITY ²		
ACC # ³ Expiry date ³	OPERATOR NAME ⁴ Doc trading name ⁵ Operator address ⁶ Telephone ⁷ Fax Email	OPERATIONAL POINTS OF CONTACT ⁴ Contact details, at which operational management can be contacted without undue delay, are listed as:
This certificate certifies that _____ is authorized to perform commercial air operations, as defined in the attached operations specifications, in accordance with the operations manual and the _____.		
Date of issue ⁷	Name and signature ¹ Title	

Notes:—
1. For use of the State of the Operator.
2. Replace by the name of the State of the Operator.
3. Replace by the identification of the issuing authority of the State of the Operator.
4. Change ICAO number, as issued by the State of the Operator.
5. Only after which the ICAO number is to be valid (if any exist).
6. Replace by the operator's registered name.
7. Operator's trading name, if different. Insert "also" before the trading name (for "doing business as").

ANNEX 6—PART 1

APP 6-1

10/11/16



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Fleet and operations data

EMP Contents

1. Aeroplane operator identification

2. Fleet and operations data

3. Methods and means of calculating emissions from international flights

4. Data management, data flow and control

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Fleet and operations data

EMP Contents

1. Aeroplane operator identification
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4. Data management, data flow and control



Fleet declaration			
No	ICAO type designator	Fuel type	Number of aeroplanes
1	A320	Jet-A	10
2	B737	Jet-A	10
3	E190	Jet-A	15
4	BCS3	Jet-A	15
5
6

- Information on the operator's aeroplane types and types of fuel
- Flight attribution to the operator
- Procedures to track changes in the fleet
- List of State pairs operated at the time of the EMP submission
- Procedures to identify international flights and exempted flights

ICAO model flight plan form

The image shows a portion of the ICAO model flight plan form. A red circle highlights field 7, 'AIRCRAFT IDENTIFICATION', which contains the text 'Type of aircraft' and 'Registration mark'. A red arrow points from this field to a list of checkboxes below.

- ICAO Designator
- Registration mark
- Emissions monitoring plan code
- Aircraft owner

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Methods and means of calculating emissions from international flights

EMP Contents
1. Aeroplane operator identification
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3. Methods and means of calculating emissions from international flights
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Methods and means of calculating emissions from international flights

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$$CO_2 \text{ Emissions} = \text{Mass of fuel} * \text{Fuel Conversion Factor of given fuel type}$$



- An aeroplane operator shall monitor and record its fuel use from international flights in accordance with an eligible monitoring method
- Monitoring method shall be approved by the State as a part of aeroplane operator's Emissions Monitoring Plan
- The aeroplane operator shall use the same eligible monitoring method for the entire compliance period

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Methods and means of calculating emissions from international flights

For the 2019-2020 period there are two possibilities to calculate emissions:

- A) Fuel use monitoring methods
(for operators $\geq 500\,000$ tCO₂)
- B) CO₂ Estimation and Reporting Tool CERT
(for operators $\leq 50\,000$ tCO₂ but $> 10\,000$ tCO₂)

FUEL USE MONITORING METHODS

- Method A
- Method B
- Block-off / Block-on
- Fuel Uplift
- Fuel Allocation with Block Hour

CERT
ICAO CORSIA
CO₂ Estimation and Reporting Tool
(accessible through the ICAO CORSIA website)
Expected by July 2018



Data management, data flow and control

EMP Contents

1. Aeroplane operator identification

2. Fleet and operations data

3. Methods and means of calculating emissions from international flights

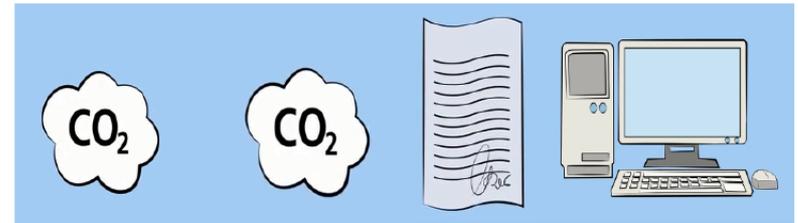
4. Data management, data flow and control

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Data management, data flow and control

EMP Contents
1. Aeroplane operator identification
2. Fleet and operations data
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4. Data management, data flow and control



- Aeroplane operator's internal roles, responsibilities and procedures on data management, and related risks
- Procedures to handle possible data gaps and errors
- Documentation and record keeping plan
- Procedures for communicating the changes in the EMP to the State

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Emissions Monitoring Plan Template

CORSIA

EMISSIONS MONITORING PLAN (EMP)

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- 1 [EMP-Versions](#)
- 2 [Identification](#)
- 3 [Fleet and Operations Data](#)
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 - 4.6 [CORSIA CO₂ Estimation and Reporting Tool \(CERT\)](#)
- 5 [Data Management](#)

Template Information

Template provided by:	
Version (publication date):	

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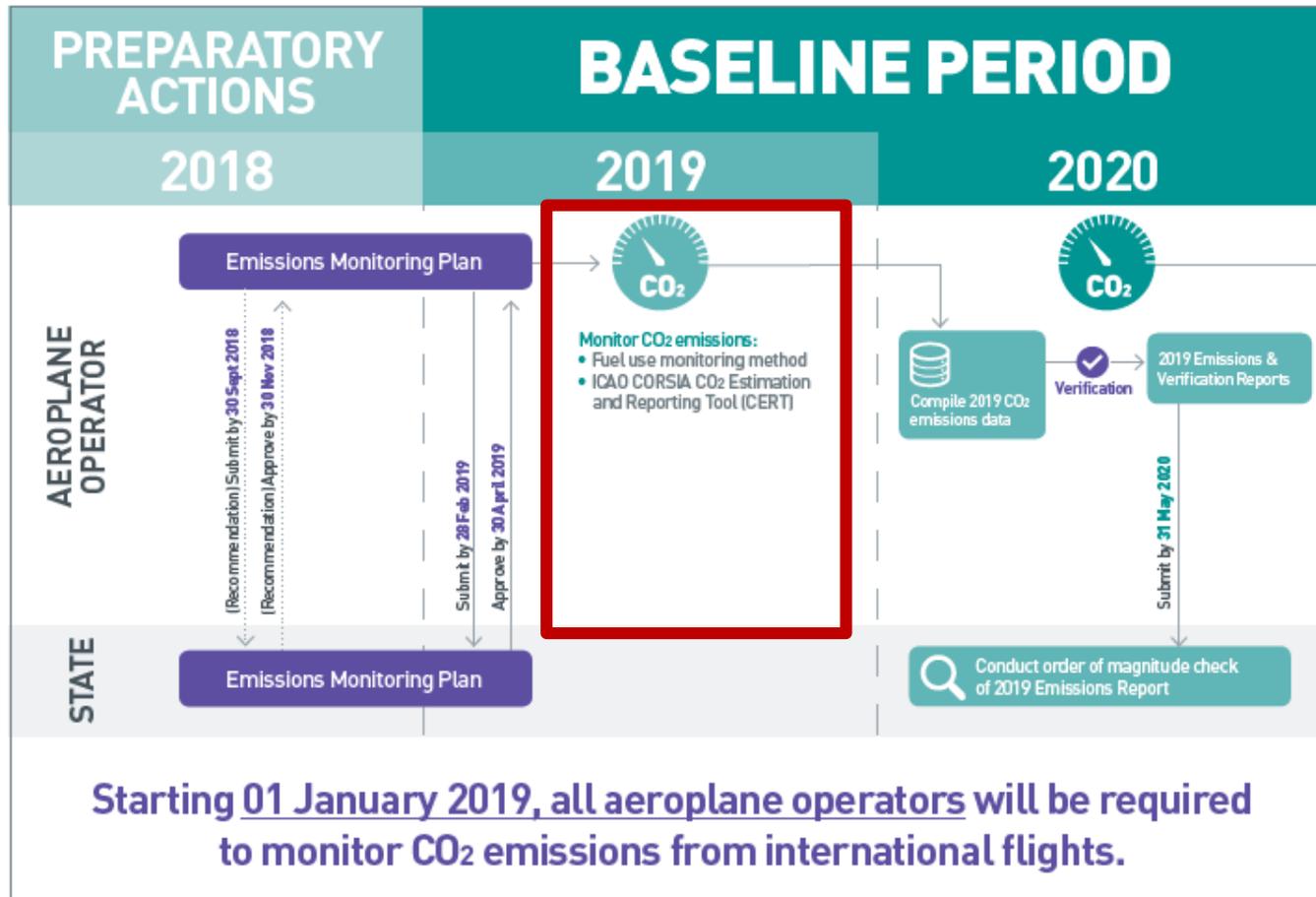


Approval of an Emissions Monitoring Plan

- EMP shall be approved by the State (FOCA)
- If the aeroplane operator's EMP is determined to be incomplete and/or inconsistent the State shall engage with the aeroplane operator to resolve outstanding issues. This may involve returning the EMP to the aeroplane operator along with an explanation as to why the plan was found deficient, or a request for further information.



Baseline Period: Monitoring





CO₂ Estimation and Reporting Tool (CERT)

To simplify the estimation and reporting of CO₂ emissions from international flights for operators with low level of activity in fulfilling their monitoring and reporting requirements, ICAO has developed the CORSIA **CO₂ Estimation and Reporting Tool (CERT)**.

CERT	Aeroplane Operators International CO ₂ Emissions (tonnes) 2019 – 2020*		
	≤ 10K CO ₂	< 500K CO ₂	≥ 500K CO ₂
Preliminary CO ₂ Assessment	✓	✓	✓
CO ₂ Estimation & Reporting	No CORSIA requirement	✓	Not Eligible to use CERT **
Filling Data Gaps	No CORSIA requirement	✓	✓

*Note: from 2021-2035 operators can use CERT to estimate and report emissions if their annual emissions from international flights subject to offsetting requirements are < 50 000 tonnes of CO₂ annually.

**Note: If an aeroplane operator uses CERT for 2019 CO₂ estimation and reporting (based on their preliminary CO₂ assessment) but exceeds the threshold of 500 000 tonnes in 2019, the State could permit the operator to continue to use CERT during 2020.

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CO₂ Estimation and Reporting Tool (CERT)

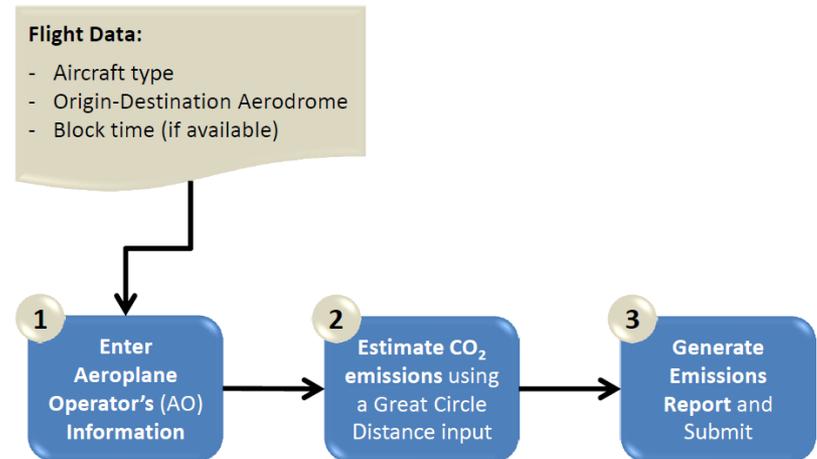
The CERT comprises a three-step process

(1) Entering Aeroplane Operator's Basic Information

(2) Entering Flight Data to estimate CO₂ Emissions by entering:

- a) Aeroplane Type by ICAO Type Designator
- b) Origin-Destination Aerodrome
- c) Number of flights (if batches of flights are entered)

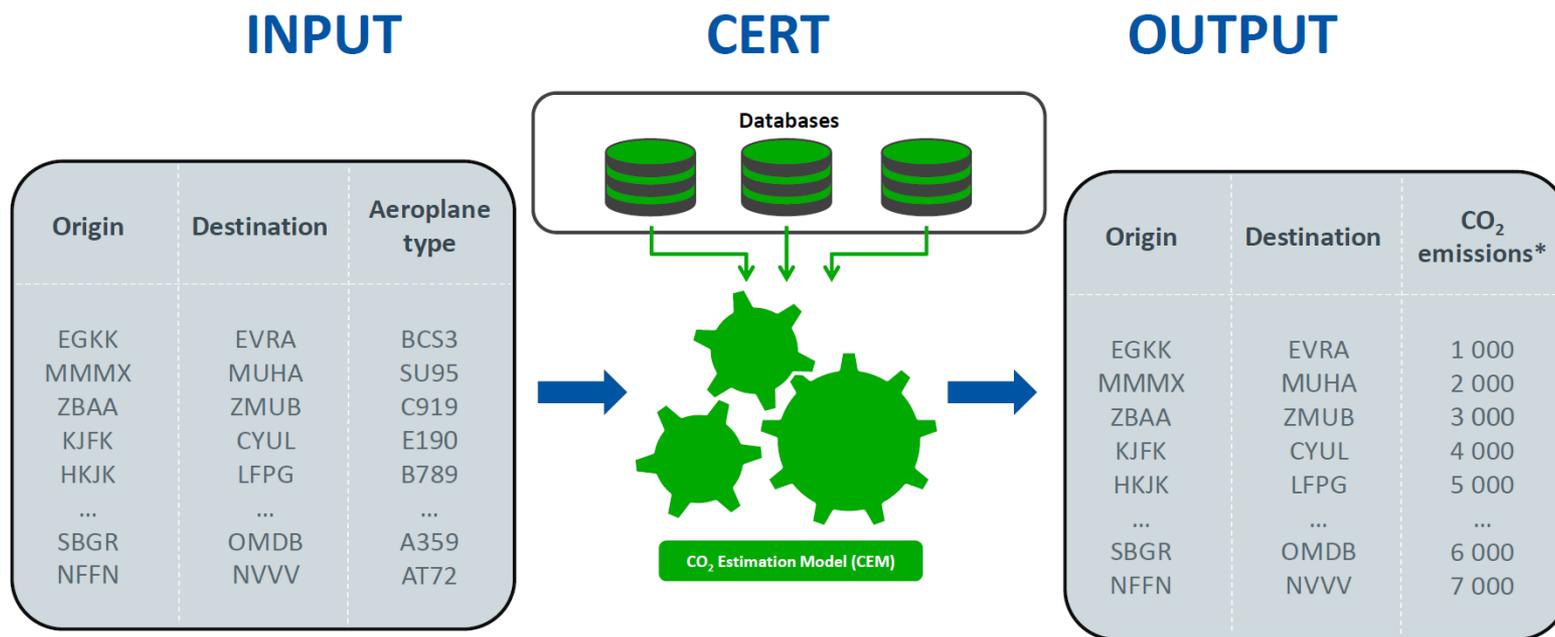
(3) Generating the Summary Assessment report in support for EMP submission



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CO₂ Estimation and Reporting Tool (CERT)



* For illustration only

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CO₂ Estimation and Reporting Tool (CERT)

The CERT will have up to 4 functionalities:

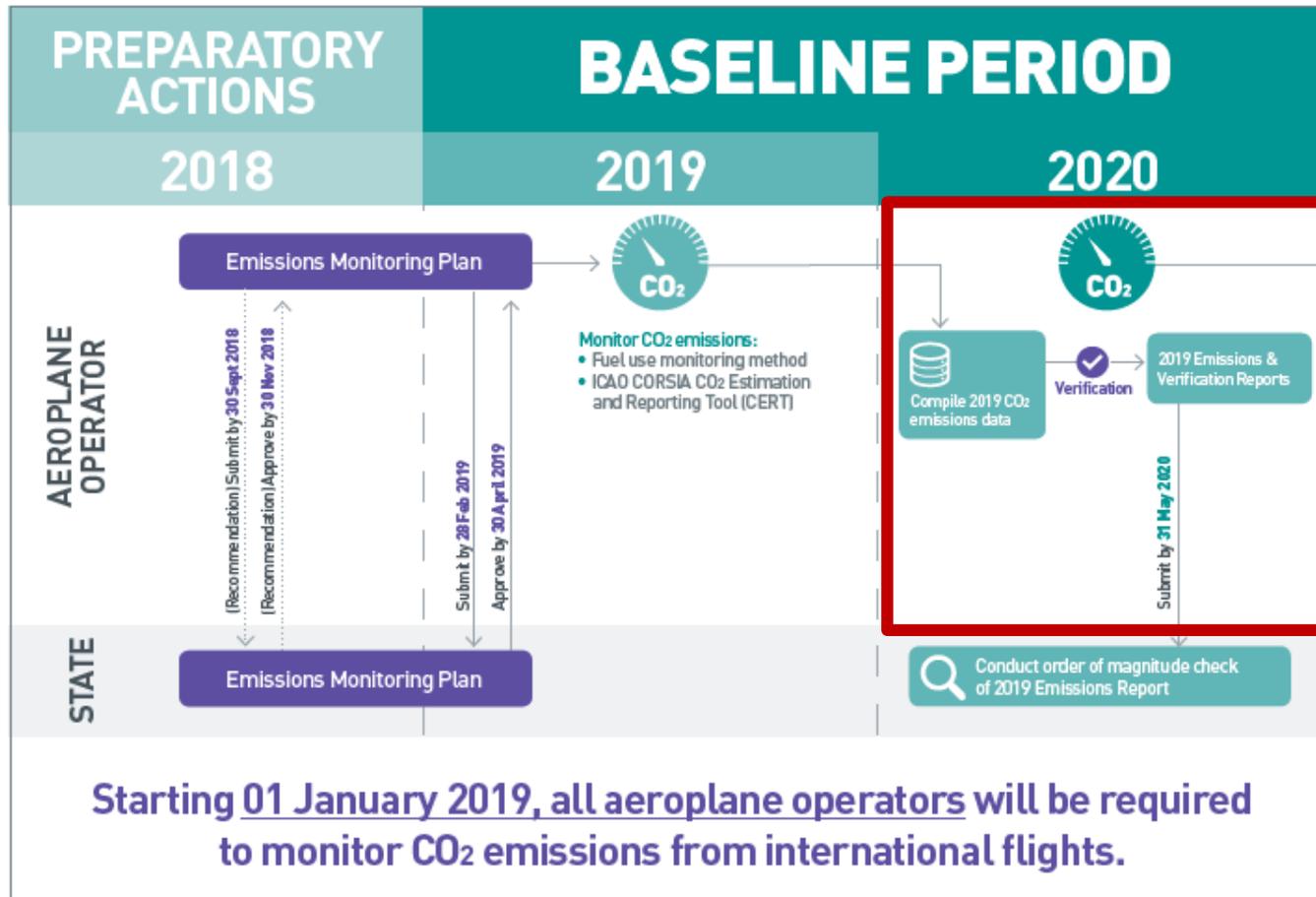
CERT CO ₂ Estimation & Reporting Tool			
Year of Validity	2018 (Version 2018)	2019-2020 (Version 2019-2020)	2021-2035 (Version 2021-2035)
Estimation of CO ₂ for Determination of Simplified Compliance Procedures Eligibility	Yes	Yes	Yes
Report Generation Functionality	Partial*	Yes	Yes
Monitoring (Estimating CO ₂)	No	Yes	Yes
List of States pairs subject to offsetting requirement	No	No	Yes

* The 2018 Version of the CERT includes the functionality to generate a summary report of the assessment of the estimation of the Aeroplane Operators CO₂ emissions. The report can be used as supporting evidence to the operator's Emissions Monitoring Plan.

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Baseline Period: Reporting/Verification





Emissions Monitoring Report

- Standardized reporting templates will be made available to facilitate uniform reporting from aeroplane operators to States
 - Template of Emissions Report
 - Template of sustainable aviation fuels supplementary information to the Emissions Report

CORSIA
EMISSIONS REPORT

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- 4 [Fuel Density](#)
- 5. [Reporting](#)
 - 5.1 [Option 1: State Pair Routes Reporting Manually](#)
 - 5.2 [Option 2: State Pair Routes Reporting Automatically \(1 - Aerodrome Pairs\)](#)
 - 5.2 [Option 2: State Pair Routes Reporting Automatically \(2 - Summary\)](#)
- 6 [Data Gaps](#)

Template Information

Template provided by:	
Version (publication date):	

CORSIA
SUSTAINABLE AVIATION FUELS
SUPPLEMENTARY INFORMATION*

(*Supplementary Information to the Emissions Report from Aeroplane Operator to State)

CONTENTS

- [TEMPLATE INFORMATION](#)
- [AEROPLANE OPERATOR IDENTIFICATION & REPORTING INFORMATION](#)
- [DETAILS OF SUSTAINABLE AVIATION FUELS INFORMATION](#)
 - [Fuel Claim #1](#)
 - [Fuel Claim #2](#)
 - [Fuel Claim #3](#)
 - [Fuel Claim #4](#)
 - [Fuel Claim #5](#)
 - [Fuel Claim #6](#)
 - [Fuel Claim #7](#)
 - [Fuel Claim #8](#)
 - [Fuel Claim #9](#)
- [SUMMARY OF SUSTAINABLE AVIATION FUELS INFORMATION](#)

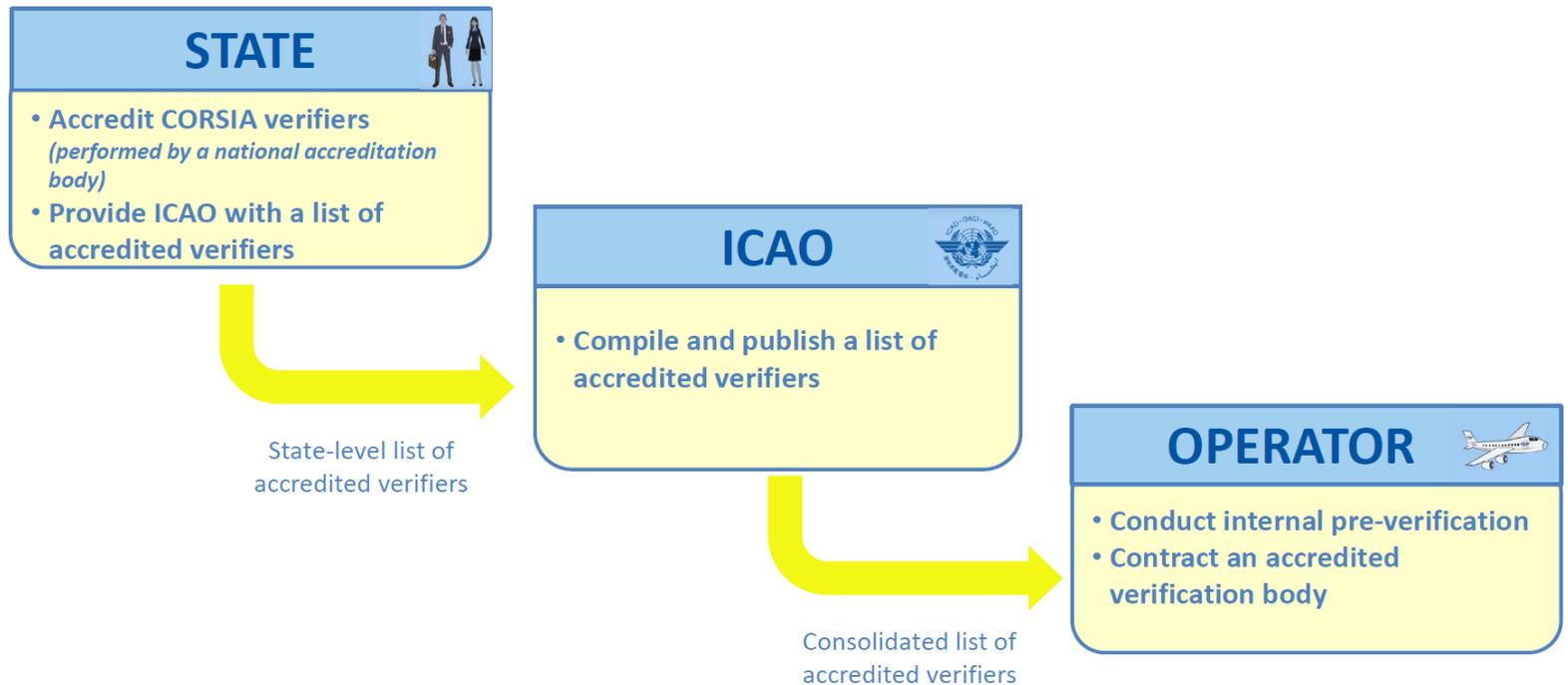
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Verification of an Emissions Monitoring Report



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Next steps

- EMP template for Swiss aeroplane operators and the tool CERT will be available via the FOCA website as soon as the SARP's package is publicly available (expected in **July 2018**)
- Submission of an EMP by **30 September 2018** to FOCA as a signed hardcopy to BAZL, LEUW, 3003 Bern and by email to corsia@bazl.admin.ch
- Approval of the EMP by **30 November 2018** by FOCA
- Monitor 2019 CO₂ emissions from international flights from **1 January to 31 December 2019**
- Compile 2019 CO₂ emissions data and submit the verified Emissions monitoring report until **31 May 2020**



Questions?

