

# ICAO Webinar on CORSIA Verification

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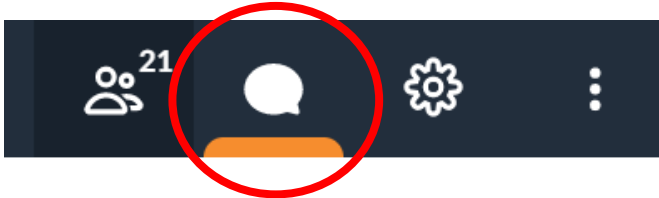
14 May 2020

ICAO Secretariat



# Housekeeping Rules

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- Secretariat will address additional questions registered through chat
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  - Only comments/questions sent to 'everyone' will be addressed

# Objective and Agenda

- Objective

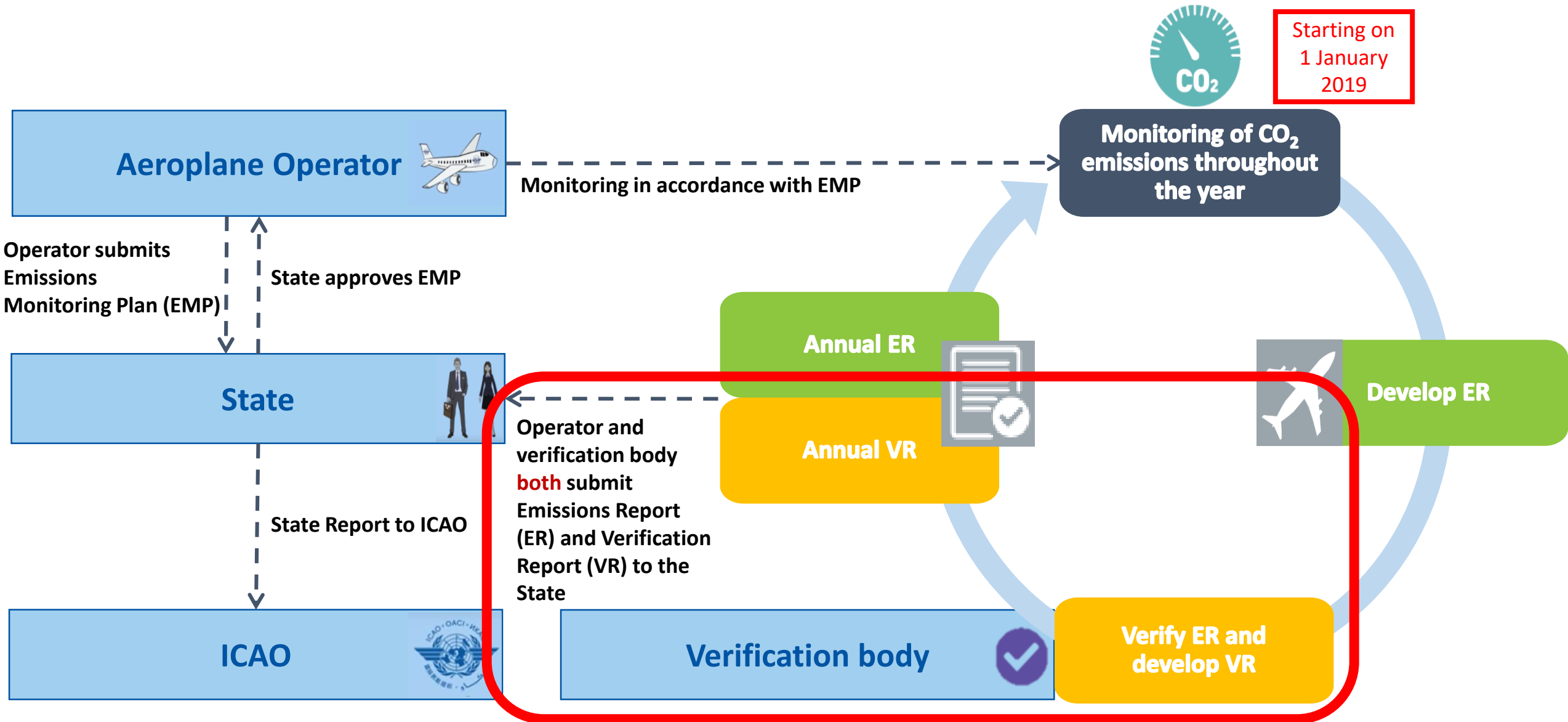
- To provide clarifications to all CORSIA Focal Points on CORSIA verification rules and guidance, in particular on site visits, in light of Annex 16, Volume IV and the ETM (Doc 9501), Volume IV

- Agenda

- Introduction to verification
  - Verification of CO<sub>2</sub> Emissions in CORSIA – Fundamentals
  - Verification process in CORSIA by verification bodies
  - Accreditation of verification bodies
- Questions and answers
- Key takeaway

# Verification of CO<sub>2</sub> Emissions in CORSA – Fundamentals

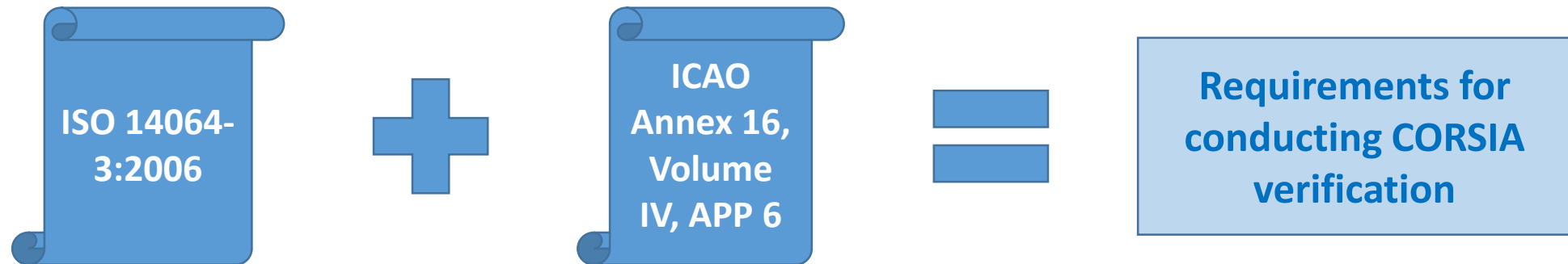
# Annual Cycle for CORSIA MRV Activities



- Objective of the verification of CO<sub>2</sub> Emissions Report under CORSIA
  - To check if monitoring of CO<sub>2</sub> emissions by the aeroplane operator is done according to the approved Emissions Monitoring Plan (EMP) (and Annex 16, Volume IV)
  - To check if reported CO<sub>2</sub> emissions by the aeroplane operator are correct / reliable
    - Represent accurately CO<sub>2</sub> emissions over the reporting period and supported by evidence ?
    - Aeroplane operator has monitored, calculated and reported emissions in accordance with Annex 16, Volume IV, and approved EMP ?
    - Flight attribution is correctly applied: no overlap/gaps with other operators ?
- Scope of verification
  - Entire reporting period as stated in CO<sub>2</sub> Emissions Report (1 year)
  - CO<sub>2</sub> emissions determined by the use of fuel use monitoring methods and/or CERT

# Verification of Emissions Reports

- The aeroplane operator shall engage an accredited verification body for the verification of its annual Emissions Report
  - An aeroplane operator may engage a verification body accredited in another State, subject to rules and regulations affecting the provision of verification services in the State to which the aeroplane operator is attributed
- A verification body shall conduct the verification according to ISO 14064-3:2006, and the CORSIA-specific requirements described in Annex 16, Volume IV, Appendix 6, and the guidance in the ETM (Doc 9501), Volume IV



Reference: Annex 16, Volume IV, Part II, Chapter 2, 2.4.1

# Verification Process (2019 Emissions)



## Verification process by verification bodies

- (1) Pre-contract stage
- (2) Strategic analysis
- (3) Risk analysis
- (4) Verification Plan
- (5) Verification
- (6) Addressing misstatements and non-conformities
- (7) Verification Report
- (8) Independent review
- (9) Authorization to forward by aeroplane operator
- (10) Submit Verification Report and Emission Report to State

Voluntary pre-verification by aeroplane operator

**Deadline to submit to States:  
31 May 2020**

Order of Magnitude Check by the State

# Verification Process (for 2019 Emissions)

## Verification process by verification bodies

## Preparation for the verification

(1) Pre-contract stage

(2) Strategic analysis

(3) Risk analysis

(4) Verification Plan

(5) Verification

(6) Addressing misstatements and non-conformities

(7) Verification Report

(8) Independent review

(9) Authorization to forward by aeroplane operator

(10) Submit Verification Report and Emission Report to State

Voluntary pre-verification by Aeroplane Operator

Order of Magnitude Check by the State

- **Site Visit is NOT a requirement under Annex 16, Volume IV**
  - According to ETM (Doc 9501), Volume IV, **Site Visit** is essential means for verification team to collect sufficient and appropriate evidence to confirm whether Emission Report is free from material misstatements and non-conformity
  - If very low verification risks are identified, alternate remote verification technique like video-conferencing and direct access to aeroplane operator's database may be used to substitute **Site Visit**



***The VB should coordinate with the State before replacing the site visit with an alternative approach***

## Verification process by verification bodies

(1) Pre-contract stage

(2) Strategic analysis

(3) Risk analysis

(4) Verification Plan

(5) Verification

(6) Addressing misstatements and non-conformities

(7) Verification Report

(8) Independent review

(9) Authorization to forward by aeroplane operator

(10) Submit Verification Report and Emission Report to State

Voluntary pre-verification by Aeroplane Operator

**Verification Activities**

Order of Magnitude Check by the State

## Verification process by verification bodies

(1) Pre-contract stage

(2) Strategic analysis

(3) Risk analysis

(4) Verification Plan

(5) Verification

(6) Addressing misstatements and non-conformities

(7) Verification Report

(8) Independent review

(9) Authorization to forward by aeroplane operator

(10) Submit Verification Report and Emission Report to State

Voluntary pre-verification by Aeroplane Operator

## Submission of Reports

Order of Magnitude Check by the State

# Accreditation of Verification Bodies under CORSIA

# Accreditation of Verification Bodies

- A verification body shall be accredited by a national accreditation body in order to be eligible to verify Emissions Reports in CORSIA:
  - ISO 14065:2013 “Greenhouse gases - Requirements for greenhouse gas validation and verification bodies for use in accreditation or other forms of recognition”
  - CORSIA-specific requirements as described in Annex 16, Volume IV, Appendix 6
- A national accreditation body shall be working in accordance with ISO/IEC 17011 “Conformity assessment - General requirements for accreditation bodies accrediting conformity assessment bodies”
- As of 30 April 2020, 40 verification bodies are accredited in 17 States
  - Published in ICAO document “*CORSIA Central Registry (CCR): Information and Data for Transparency*”

- **Witness Audit** during accreditation
  - According to ETM (Doc 9501), Volume IV, **Witness Audit** is where National Accreditation Body (NAB) monitors the verification approach taken by the witnessed verification body during an actual audit
  - Given the short period available for the NABs to schedule **Witness Audit** and finalize the accreditation process, some NABs have provisionally accredited the verification body on the premise that **Site Visit** by the verification body would count as **Witness Audit**







# Questions and Answers

## Q1. Does the voluntary pre-verification substitute the third-party verification?

- No, the voluntary pre-verification does not substitute the third-party verification
- Voluntary pre-verification is not a requirement under Annex 16, Volume IV, although aeroplane operators are recommended to consider preparing for the third-party verification process by conducting a pre-verification (*Please check CORSIA FAQ 3.83*)

## Q2. Is third-party verification a requirement under Annex 16, Volume IV ?

- Yes, the third-party verification is a requirement under Annex 16, Volume IV
- Annex 16, Volume IV, Part II, Chapter 2, 2.4.1.1 states:  
The aeroplane operator shall engage a verification body for the verification of its annual Emissions Report.

CORSIA FAQ accessible available at: <https://www.icao.int/environmental-protection/CORSIA/Pages/CORSIA-FAQs.aspx>

## Q3. Is a third-party verification needed when using the ICAO CORSIA CO<sub>2</sub> Emissions and Reporting Tool (CERT)?

- Yes, according to Annex 16, Volume IV, an aeroplane operator shall engage a third-party verification body for the verification of its annual Emissions Report also when the ICAO CORSIA CERT has been used for generating an Emissions Report (*Please check CORSIA FAQ 3.84*)

## Q4. Is there any exception to third-party verification requirement due to the current situation of the COVID-19?

- The ICAO Council is currently assessing the impacts of COVID-19 on CORSIA implementation, and any decisions that may affect the provisions of Annex 16, Volume IV will be communicated to all ICAO States in due course

CORSIA FAQ accessible available at: <https://www.icao.int/environmental-protection/CORSIA/Pages/CORSIA-FAQs.aspx>

## Q5. Is a site visit in verification process the requirement under Annex 16, Volume IV?

- No, site visit is not a requirement under Annex 16, Volume IV on CORSIA
- ETM (Doc 9501), Volume IV, Chapter 3, 3.3.4 recommends site visit to take place as an essential means for verification team to collect sufficient and appropriate evidence to confirm whether Emission Report is free from material misstatements and non-conformity. Whether site visit takes place is dependent on the result of the risk analysis prior to the verification activities
- ETM (Doc 9501), Volume IV provides flexibility to replace a site visit with an equivalent approach when verification risk is determined to be low, and also recommends to clearly mention in the Verification Report whether site visit has been replaced and the reasoning for the decision. The verification body should coordinate with the State of the aeroplane operator before replacing the site visit with an alternative approach.

## **Q6. How can verification bodies conduct site visits given the COVID-19 travel restrictions before submitting reports by 31 May 2020?**

- Given the restrictions and measures imposed in several States vis-à-vis COVID-19, NABs, in close coordination with the Civil Aviation Authorities, may guide their verification bodies whether a general remote assessment would be accepted as a measure to address current situation
- Some States have taken such an approach and have provided their accredited verification bodies with guidance on this matter

## **Q7. Is there any requirement for a verification body to be accredited by the NAB of the State it is registered in?**

- According to Annex 16, Volume IV, Part II, Chapter 4, 4.4.2, a verification body shall be accredited to ISO 14065:2013 and the relevant requirements in Appendix 6, Section 2 by a national accreditation body
- Additional requirements or conditions for NABs to accredit verification bodies, including the accreditation of a foreign verification bodies, are within the purview of the NABs of each State
- According to Annex 16, Volume IV, Part II, 2.4.2.1, note, an aeroplane operator may engage a verification body accredited in another State, subject to rules and regulations affecting the provision of verification services in the State to which the aeroplane operator is attributed

## **Q8. Can one verification body be accredited by several NABs?**

- Yes, a verification body can seek accreditation by NABs in more than one States

## Q9. Can a Civil Aviation Authority accredit verification bodies?

- No, according to Annex 16, Volume IV, Part II, Chapter 2, 2.4.2, accreditation is granted by the national accreditation body, in accordance with ISO/IEC 17011 (Conformity assessment – General requirements for accreditation bodies accrediting conformity assessment bodies)
- In case there is no national accreditation body, a State may notify aeroplane operators to engage verification bodies accredited in another State.
- The list of accredited verification bodies accredited in States for CORSIA is included in “*CORSIA Central Registry (CCR): Information and Data for Transparency*”, available at: <https://www.icao.int/environmental-protection/CORSIA/Pages/Data-for-Transparency.aspx>
- For further information, please check ETM (Doc 9501), Volume IV, Chapter 3. Section 3.3.2.3, and CORSIA FAQ 3.94 - 3.96

CORSIA FAQ accessible available at: <https://www.icao.int/environmental-protection/CORSIA/Pages/CORSIA-FAQs.aspx>

## Q10. Should aeroplane operator submit a copy of accreditation certificate of the verification body to States along with the Emissions Report?

- No, according to the Annex 16, Volume IV, there is no such requirement for aeroplane operators to submit a copy of accreditation certificate to the States

## Q11. What can State do to check the accreditation status of verification bodies referred in the Emissions Report?

- According (Doc 9501), Volume IV, Chapter 3, 3.3.4.3, Table 3-9. State order of magnitude checklist for Emissions Report, Question 62, State is encouraged to compare the verification body with the published list of ICAO
- If the verification body referred in the ER is not included in the list, the Emissions Report does not meet the requirements of Annex 16, Volume IV
- The list of accredited verification bodies accredited in States for CORSIA is included in “*CORSIA Central Registry (CCR): Information and Data for Transparency*”, available at: <https://www.icao.int/environmental-protection/CORSIA/Pages/Data-for-Transparency.aspx>



## Q12. Regarding the “Order Magnitude Check” by States, does it require specific training, or is it enough to follow the ETM Checklist?

- No, the order of magnitude check by States does not require special training.
- Under the ETM (Doc 9501), Volume IV, Chapter 3, 3.3.4.3, Table 3-9. State order of magnitude checklist for Emissions Report, provides a guide for States to conduct the order of magnitude check
- The Secretariat included this aspect of CORSIA in the material presented in the context of the 2019 CORSIA Regional Workshops, available at:  
<https://www.icao.int/Meetings/RS2019/Pages/default.aspx>

## Q13. Is there a training on CORSIA verification?

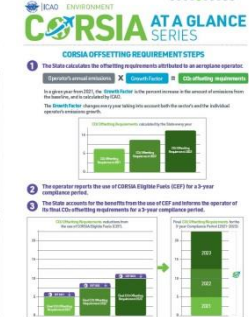
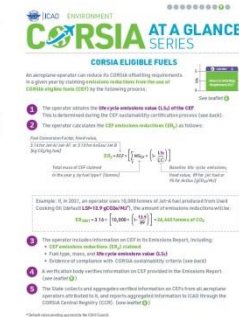
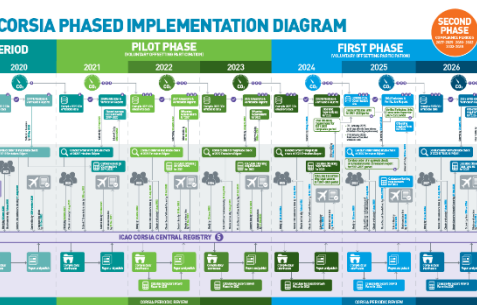
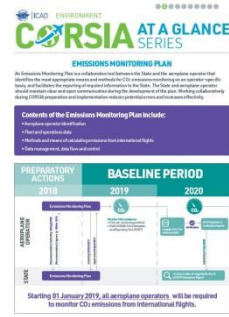
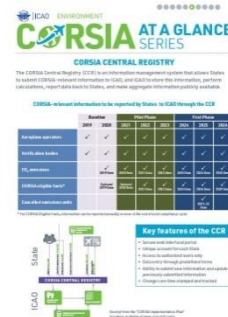
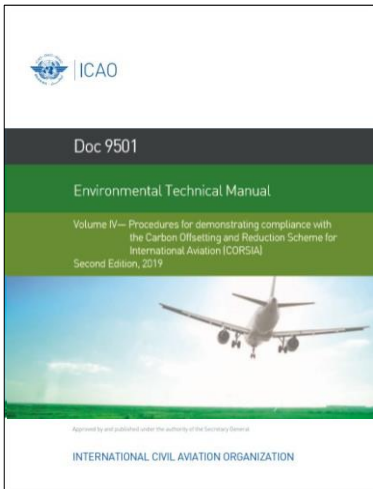
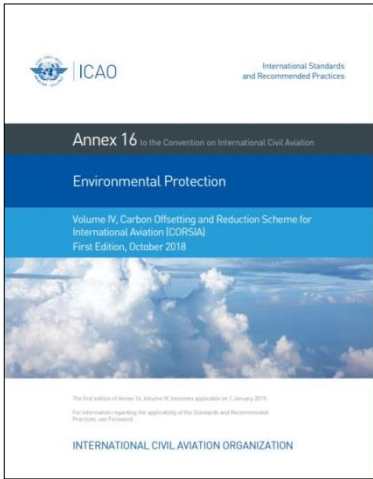
- Yes, ICAO has launched a CORSIA Verification Course (in-person and virtual classroom) aimed mainly for verification bodies to provide training on how to verify CO<sub>2</sub> Emissions Reports that have been prepared by aeroplane operators, in accordance with the provisions of the CORSIA SARPs.
- More information about the course, including upcoming deliveries can be found from: <https://www.icao.int/training/Pages/training-catalogue-details.aspx?catid=2657&language=0&region=&ITP=1>

# Key Takeaways

- Verification is one of the key components of CORSIA to safeguard the quality of the reported information and data
- Site visit is not a requirement but recommended as an essential element of verification and its necessity is determined as result of the risk analysis
- CORSIA Focal Points are encouraged to coordinate with the National Accreditation Bodies in their States to provide guidance for accredited verification bodies with regards to site visits and possible flexibility due to COVID-19
- Any decision by the Council that may affect the provisions of Annex 16, Volume IV due to COVID-19 impact, will be communicated to all ICAO States in due course
- CORSIA Frequently Asked Questions (FAQ):
  - Available at: <https://www.icao.int/environmental-protection/CORSIA/Pages/CORSIA-FAQs.aspx>



# Additional Question?



- ENV Homepage
- CORSIA Homepage
- CORSIA IMPLEMENTATION
- ACT CORSIA

### Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA)

CORSIA News (click here to consult the complete list)

January 2020

Colombia received training under Phase Two ACT-CORSIA Buddy Partnership with Italy

### CORSIA IMPLEMENTATION

- Assembly Resolution A40-19
- Reservation to Resolution A40-19
- SARPs - Annex 16 Volume IV
- Environmental Technical Manual - Volume IV
  - » Templates
- ICAO CORSIA Implementation Elements
  - » CORSIA States for Chapter 3 State Pairs
  - » ICAO CORSIA CO<sub>2</sub> Estimation and Reporting Tool (CERT)
  - » CORSIA Eligible Fuels
  - » CORSIA Eligible Emissions Units
  - » CORSIA Central Registry (CCR)

### ACT CORSIA

- CORSIA Buddy Partnerships
- Model Regulations
- Frequently Asked Questions
- Brochure and Leaflets
- Videos
- Seminars
- Online Tutorials
- Background Information

Additional Material for CORSIA Implementation



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