

# EU CORSIA Africa and Caribbean

*CORSIA Key elements, Offsetting and CORSIA eligible emissions units*

*Capacity building session for stakeholders from Namibia*

**Working for quieter and cleaner aviation.**

**Your safety is our mission.**

**22.07.2024-26.07.2024**

# VERIFICATION

## Verification fundamentals

- **Objective of verification**
  - Monitoring of CO<sub>2</sub> emissions by the aeroplane operator takes place according to the approved EMP (in accordance with Annex 16, Volume IV)
  - Reported emissions by the aeroplane operator are correct and reliable (free from material misstatements and material non-conformities)
    - ✓ Materially fair, represent accurately emissions over the reporting period and supported by evidence
    - ✓ AO has monitored, calculated and reported emissions in accordance with SARPs and approved EMP
    - ✓ Flight attribution is correctly applied: no overlap/gaps with other operators

# Verification

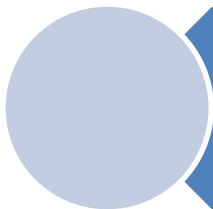
## Verification fundamentals

- **Scope of verification**
  - CO<sub>2</sub> emissions from aeroplane fuel monitoring methods
  - Entire reporting period as stated in ER (1 year)
- **Level of assurance**
  - Reasonable assurance based on appropriate evidence gained through the verification process

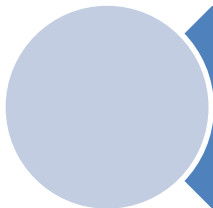


# Verification of Emissions Report and OMC

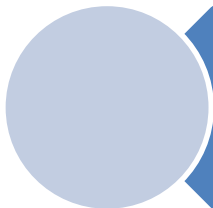
# Key steps in the verification process



Annual emission reports must be verified by an external and independent body before being submitted to the administering authority. This also applies to emissions reports from operators using CERT.



The verification body shall verify that the reported emissions are accurate and supported by sufficient evidence



One of the main tasks of the verification body will be to ensure that monitoring of CO<sub>2</sub> emissions has been carried out in accordance with the emissions monitoring plan.

# What shall be checked by the VB?

- ✓ Ensure completeness of flight list
- ✓ Ensure that the reported emissions are correct
- ✓ Confirm source of emissions by sampling
- ✓ Ensure that the emissions monitoring plan complies with Annex 16, Volume IV and the Environmental Technical Manual
- ✓ Ensure that the operator has followed the procedures as described in the emissions monitoring plan
- ✓ Check the emissions report
- ✓ Prepare an audit report

# Timeline for verification

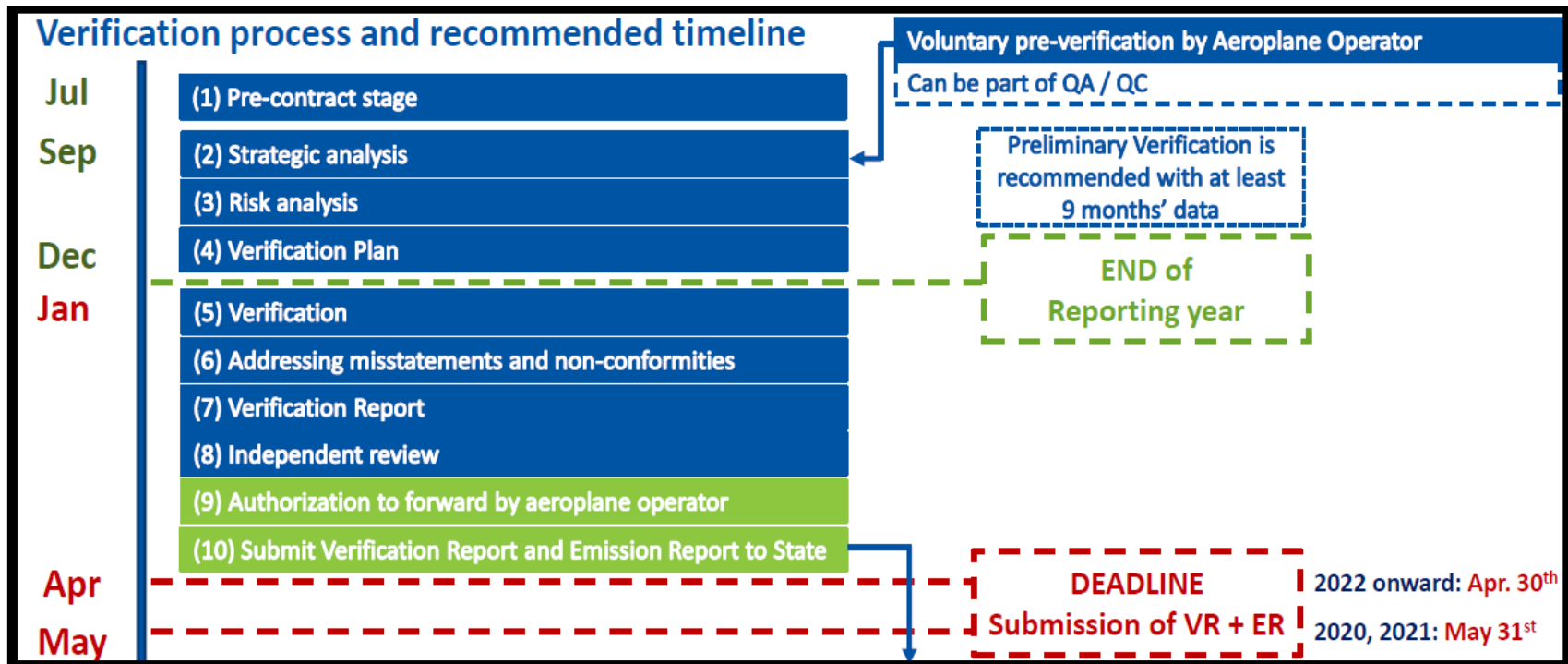
## For the AO:

- Monitor CO2 emissions for one year N
- On 1 January of year N+1, compile the CO2 emissions data of international flights for year N
- Produce Year N Emissions Report
- Be checked
- Submit reports by April 30 of the year N+1

## For the SA:

- Verify the Emissions Reports (order of magnitude) and submit the data to ICAO through CORSIA Central Register-CCR- before 31 July of the year N+1

# Verification Process for the VB and AO to SA





# Example From the Verification Report template

## SCOPE OF VERIFICATION REPORT

Please specify which type of report is being verified (airplane operator's Emissions Report with or without CORSIA eligible fuels and/or an airplane operator's Emissions Unit Cancellation Report).

**Note I:** When conducting the verification of an Emissions Unit Cancellation Report exclusively, only the points a), b), c), d), f), g), h), m), p), q), r) and s) shall be applicable.

**Note II:** The verification body has to provide a conclusion on each of the verification objectives, as applicable, in the concluding verification statement.

Verification of airplane operator's Emissions Report without CORSIA eligible fuels

## IDENTIFICATION

### a) Name of the verification body

Please enter the name of the verification body. This name should be the legal entity.

monica verification body

### a1) Address of the verification body

Please enter the department and address of the verification body:

Department:	
Address line:	
City:	
State/Province/Region:	
Postcode/ZIP:	
Country:	

### a2) Information on verification team members

Please enter the contact information of the verification team leader. Please provide address details (if different from a1).

Position within the company:	GRG Auditor
First name:	
Surname, academic title:	
Role and expertise of the team member within the verification team:	Team Leader, Document Review, Interview, Drafting Verification Report
Email address:	
Telephone number:	
Address line 1:	
Address line 2:	
City:	
State/Province/Region:	
Postcode/ZIP:	
Country:	

Please enter the contact information of additional verification team members.

Position within the company:	GRG Auditor
First name:	
Surname, academic title:	
Role and expertise of the team member within the verification team:	Team Member, Document Review, Interview
Email address:	
Telephone number:	
Address line 1:	
Address line 2:	
City:	
State/Province/Region:	
Postcode/ZIP:	
Country:	

Please enter the contact information of additional verification team members.

Position within the company:	GRG auditor
First name:	
Surname, academic title:	
Role and expertise of the team member within the verification team:	Team Member, Document Review, Drafting Verification Report
Email address:	
Telephone number:	
Address line 1:	
Address line 2:	
City:	
State/Province/Region:	
Postcode/ZIP:	
Country:	

# From the Verification Report template

## TIME ALLOCATION AND SCOPE OF THE VERIFICATION

### b) Total time of verification

*Please enter the dates on which the verification was carried out and the total time required for the verification in working days, including revisions.*

Strategic Analysis and Risk Analysis: 1 April, 2023 (1 Man-Day); Process Analysis: 2,3 April, 2023 (2 Man-Days); Drafting Verification Report: 4 April 2023(1 Man-Day); Independent Technical Review: 5 April 2023 (0.5 Man-Day)

### c) Scope of the verification

*Please indicate the scope of the verification. This must include the time period covered by the verification and the verification boundaries (organization, physical). Include whether one or more site visits were conducted and what elements, if any, were conducted remotely.*

The scope of this verification is verifying the Aeroplane Operator's CO<sub>2</sub> emissions in year 2022 to a reasonable level of assurance for the annual emissions report under CORSIA and confirm compliance with approved monitoring plan and ICAO requirements on monitoring and reporting.

The verification team has conducted a full assessment of the risks associated with conducting remote verification, including: the applicability of remote verification methods to verification projects; The consistency between remote verification schemes and verification objectives; The applicability of the ICT technology planned to be adopted; The matching of the capabilities of the verification body and team; The comprehensiveness of remote verification program design; The accuracy of remote verification execution. After the risk assessment, the verification team decided an on-site visit is not necessary and a remote verification was carried out instead. Authorisation was requested to the SA who agreed to have a remote verification process.

### c1) CORSIA eligible fuels

*If the verification includes a claim of CORSIA eligible fuels, please indicate the source of the CORSIA eligible fuel information and if direct access to the fuel producer was required and provided.*

# From the Verification Report template

## GENERAL INFORMATION

### d) Impartiality and avoidance of conflict of interest assessment

*Please describe the main results of impartiality and avoidance of conflict of interest assessment.*

1. Monica verification body is not an aeroplane operator, the owner of an aeroplane operator or owned by an aeroplane operator.
2. Monica verification body does not conduct any trading of emission unit.
3. The relationship between Monica verification body and this verified aeroplane operator is not based on common ownership, common governance, common management or personnel, shared resources, common finances and common contracts or marketing.
4. Monica verification body did not take over any delegated activities from the aeroplane operator with regard to the preparation of the Emissions Monitoring Plan and the Emissions Report.

### e) Verification criteria

*Please specify the criteria against which the Emissions Report was verified (e.g. version of EMP; Annex 16, Volume IV; CORSIA Implementation Elements; specific national legislation; Environmental Technical Manual (Doc 9501), Volume IV, etc.).*

1. Annex 16, Volume IV of Standard and Recommended Practices (First Edition)
2. Environmental Technical Manual (Doc 9501), Volume IV — Procedures for demonstrating compliance with the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) (Second Edition)
3. Approved Emission Monitoring Plan (Version 1, 2019-01-01)
4. ISO 14064-3:2019 Specification with guidance for verification and validation of greenhouse gas statement and
5. national Regulation on CORSIA

### f) Information and data used of the aeroplane operator

*Please specify which data and documents provided by the aeroplane operator were used by the verification body to carry out verification activities (e.g. list of flight activities exported from the Operational Management System as of dd/mm/yy, flight logs and ACARS messages of the following flights, instructions for flight crews for use of density information of fuel as contained in document xyz, etc.).*

As specified in the approved emission monitoring plan (version 1, 2019-01-01), the AO uses ICAO CORSIA CO2 Estimation and Reporting Tool (CERT) as Fuel Use Monitoring Method.

Therefore, the verification team checked the following information:

1. Air Operator Certificate (issued on 01.01.2022 )
2. the Flight Data Year Report 2022 exported from the internal system called abc
3. CERT populated with AO's data
4. Approved Emission monitoring plan by the SA
5. Invoice and Statement of Account for Air Navigation Charges
6. Official communication between the AO and the SA

# From the Verification Report template

## PROCESS AND ANALYSIS

### g) Strategic analysis and assessment of risk

Please specify the main results of the strategic analysis and assessment of risk.

The AO operate 2 aircrafts in 2022 and total number of flights is above than 10000 annually. According to the data flow chart announced in the emission monitoring plan, the flight information will be stored in the abc database and the abc data will be used to populate the CERT and generate annual emission report.

The verification team concluded that the data flow system is not complex and verification risk is low.

### h) Verification activities

Please describe the verification activities undertaken and their corresponding results. Please include detailed information on whether the audit took place on- or off-site. This includes the precise place and in case of a remote audit, detailed procedural information on how the verification was technically conducted.

The verification team checked the AO's abc system and the Statement of Account issued by the Italian Air Traffic Services Company and confirms the AO operated 2 aircrafts in year 2022.

The AO use Great Circle Distance method of the CERT (Version 2022) to generate Emission Report, therefore, the verification team focused on verifying the aircraft type, the number of aerodrome pairs and the number of flights of each aerodrome pair.

During the remote verification, the verification team checked the AO's abc system and confirms that the flight information in the abc system is consistent with the emission report. In addition, the verification cross-checked invoices and Statement of Account for Air Navigation Charges and confirms information of the aircraft type, the aerodrome pairs and the number of flights adopted in the CERT is correct.

In addition, the verification team conducted interview with staffs from the AO and confirms the procedures described in the Emission Monitoring Plan are effective.

### i) Data sampling

Please describe the procedures of data sampling and testing conducted, including records or evidence sampled, sample size, and sampling method(s) used.

The AO uses ICAO CERT to generate Emission Report, therefore, no data sampling method was used.  
The verification team checked 100% international data from abc system and cross-checked with third party data sources.

### j) Results of data sampling

Please specify the results of all data sampling and testing, and name the cross-checks applied.

Not Applicable.

### k) Compliance with the Emissions Monitoring Plan

Please indicate whether the monitoring was performed according to the Emissions Monitoring Plan. If not, please specify and assess deviations (materiality).

The verification team confirms the monitoring performed by the AO in 2022 is in compliance with the Emissions Monitoring Plan.

### l) Non-compliances of the Emissions Monitoring Plan

Please specify any non-compliances of the Emissions Monitoring Plan with Annex 16, Volume IV. In case any potential non-compliances of the Emissions Monitoring Plan with Annex 16, Volume IV are found, please specify them and consult the State to which the aeroplane operator is attributed as to whether it is necessary for the aeroplane operator to revise the Emissions Monitoring Plan and resubmit it to the State for approval.

The verification team did not identify non-compliance of the Emissions Monitoring Plan with Annex 16, Volume IV of SARP's.

### m) Non-conformities and misstatements identified

Please list identified non-conformities and misstatements. Please describe how these have been resolved.

The verification team did not identify any non-conformity or misstatement.

# From the Verification Report template

## CONCLUSIONS

### n) Data quality and materiality

Please specify the conclusions on data quality.

The verification team confirms there is no misstatement or data gap in the reported data.

Please specify the materiality threshold for this aeroplane operator.

n1) 5%

Is this materiality threshold being met in the Emissions Report?

n2) yes

### o) Conclusion in relation to the aeroplane operator's Emissions Report

Please specify the conclusions on the verification of the aeroplane operator's Emissions Report by providing an individual conclusion for each of the verification objectives as listed in Annex 16, Volume IV, Appendix 6, 3.2.1 (as applicable).

The review of the AO's documentation and the subsequent follow-up interviews, information cross check and remote verification have provided Monica verification body with sufficient evidence to confirm that:

1. the greenhouse gas assertion is materially fair and an accurate representation of emissions over the period of the Emissions Report and is supported by sufficient and appropriate evidence;
2. the aeroplane operator has monitored, quantified and reported its emissions over the period of the Emissions Report in accordance with Annex 16, Volume IV of SARPs and the approved Emissions Monitoring Plan;
3. the aeroplane operator has correctly applied the method of flight attribution documented in the approved Emissions Monitoring Plan and in accordance with Annex 16, Volume IV of SARPs and the AO does not have other aeroplane operators under the same corporate structure;
4. no CORSIA eligible fuel was claimed by the AO;
5. in year 2022, the aeroplane operator's CO<sub>2</sub> emissions under CORSIA is 11,111 tCO<sub>2</sub>.

## CONCLUDING VERIFICATION STATEMENT

### r) Results of the independent review

Please specify the results of the independent review.

The independent reviewer confirms that all verification activities have been completed by the verification team and that the evidence collected is appropriate and sufficient and leads to the conclusions formed by the verification team.

### r1) Information on independent reviewer

Please enter the contact information of the independent reviewer. Please provide address details if different from a1).

Position within the company:	Head of Department of Climate Change
First name:	
Surname, academic title:	
Email address:	
Telephone number:	
Address line 1:	
Address line 2:	
City:	
State/Province/Region:	
Postcode/ZIP:	
Country:	

### a) Concluding verification statement

#### a1) Concluding verification statement for the Emissions Report

Please select the verification statement:

verified as satisfactory

#### a1a) Satisfactory with comments

Please specify the relevant observations and non-conformities.

# Verification Process by the SA to ICAO

- The State will perform an order of magnitude check of the Emissions Report of the aeroplane operator.
- The order of magnitude check will follow a set of standardized requirements as outlined in Table 3-11 of Doc 9501
- Depending on the outcome of the State review, there may be a need for further follow up with the aeroplane operator, the verification body, and in some cases, the national accreditation body.

# Verification Process by the SA to ICAO

POSSIBLE ISSUES	WHAT TO DO
A question or concern relating to the Emissions Report or EUCR prepared by the aeroplane operator	The State is recommended to follow up directly with the aeroplane operator
A question or concern relates to the Verification Report, or is otherwise specific to the verification of the Emissions Report or EUCR including the procedures and activities carried out by the verification body	<p>The State should contact the relevant verification body.</p> <p>Further follow up may be required with the aeroplane operator to address it, and it could potentially result in the need for a revised Emissions Report or EUCR</p>
Concerns with the quality of the provided verification influence the reporting quality of future Emissions Reports or EUCRs, and the verification body does not address the concerns raised by the State,	The State is advised to inform the accrediting NAB. Ultimately, it is the accrediting NAB that is responsible to ensure compliance of the verification body with the CORSIA verification requirements

# OMC by the SA

**Table 3-11. State order of magnitude checklist for the Emissions Report**

Insert ~~aeroplane~~ operator's name: \_\_\_\_\_  
 Reporting year: \_\_\_\_\_  
 Amount of verified emissions (in tonnes): \_\_\_\_\_  
 Reviewed by: \_\_\_\_\_  
 Additional details: \_\_\_\_\_

No	Question/Issue	Additional information	Status: OK/Yes/No/ Not Applicable	Notes and results of checks
<b>Aeroplane operator identification</b>				
1	Is the name of the <del>aeroplane</del> operator given and unambiguous? If applicable, is there a valid ICAO Designator for <del>aeroplane</del> operating agencies?	Ensure unambiguous identification of <del>aeroplane</del> operator. Get back to <del>aeroplane</del> operator in case of uncertainties.		
2	Is the basic information (address, AOC, etc.) plausible? Has the <del>aeroplane</del> operator correctly identified its competent and responsible authority? Are there changes in comparison to last Emissions Report?	If there is indication of another State being in charge, get back to relevant State and <del>aeroplane</del> operator.		
3	Are there other defects or comments?			

No	Question/Issue	Additional information	Status: OK/Yes/No/ Not Applicable	Notes and results of checks
<b>Administrative aspects</b>				
4	Has the Emissions Report been submitted in due time?			
5	Are the submitted documents and relevant accompanying documents complete? Are there any blank boxes? Is the Emissions Report verified? Is the Verification Report included?	If not, contact <del>aeroplane</del> operator and/or verification body.		
6	The <del>aeroplane</del> operator and verification body both separately submit Emissions Report and Verification Report. Is the content of both submissions identical?	Minimum check: reported fuel consumption and number of flights. Get back to <del>aeroplane</del> operator in case of deviations.		
7	Has the correct Emissions Report template version been used?	Ensures capturing and reporting fuel consumption according to latest requirements of the applicable reporting.		
8	Is the date of creation of Emissions Report within the underlying reporting period?	If so, there is the risk of incomplete reporting of flight data. End of year flights might be missing.		
9	Is there a requirement to report?	Check if annual CO <sub>2</sub> emissions from international flights, as defined in Annex 16, Volume IV, Part II, Chapter 1.1.2, and Chapter 2, 2.1, are greater than 10 000 tonnes.		
10	Are there any collateral clauses in the approval of the Emissions Monitoring Plan?	If so, implementation has to be tracked and checked.		
11	Are there other defects or comments?			



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