



**EASA**  
European Aviation Safety Agency



# CORSIA Implementation in Thailand

## Verification

Name, job title

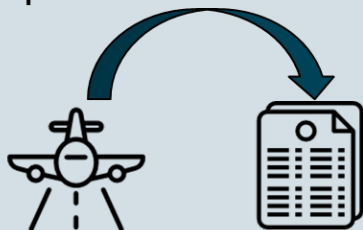
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# What to verify and when?

## Emissions Report



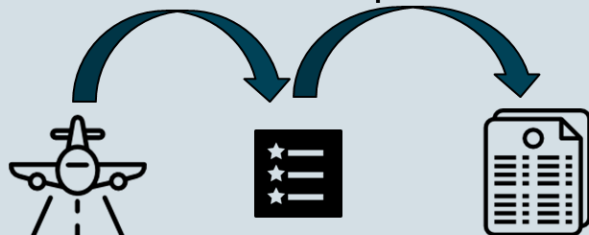
**Each year**, the operator will be required to prepare its emissions report

Verification **before 31 May** (starting 2020 respect of emissions of 2019)



Submitted to Competent Authority

## Emissions Unit Cancellation Report



The operator will need to cancel its emissions using offsets **before 31 Jan. 2025**

The operator will be required to prepare its emissions cancellation report

Verification



Submitted to Competent Authority **before 30 Apr. 2025**



- Verification of CO<sub>2</sub> emissions is to ensure that the data is accurate and free of errors
- CORSIA foresees a three-step verification pathway:
  - a) A voluntary internal pre-verification by the aeroplane operator (recommended).
  - b) A third party verification
  - c) A State Order of Magnitude Review



# Voluntary internal pre-verification

- The aeroplane operator conducts a verification of its data before submitting it to the verification body. It does not replace the requirement for third-party verification.
- Pre- verification allows to identify potential irregularities and take corrective actions prior to third-party verification (saves money and time)
- The team that manages the day-to-day MRV of CORSIA should select an internal auditor who will be able to assess what has already been done.





# Voluntary Pre-verification

## Understanding of the MR process

- Revision of the plan & other procedures, data flow charts, preliminary draft of Emissions Report versions, historical reports, communication with State

## Identification of Scope of the Preverification

- Development of a data sampling plan based the identification of risks
- Confirm calculations and summation processes are correct
- Check data sources match with what is in the plan
- If data flow diagram exists, compare with actual process

## Evaluate the Staff Competence

- Interview staff
- Ensure that the CORSIA management team have adequate knowledge
- Check if the responsibilities assigned to the staff have been completed

## Identify Errors or Logic Gaps

- Compare data with previous years
- Error checking routines: check completeness of the list of flights, consistency of data
- Comparison of emission estimates with actual fuel burn



# Voluntary Pre-verification

## Assessment of Scope and Technical Exemptions

- Appropriate flights are included?
- Flights with offsetting requirements being correctly identified?
- Technical exemptions being correctly done (i.e. medical/firefighting)

## Emission Sources

- Set up checklist of the emission sources/airplanes used by the operator

## Methodological check

- Check that the monitoring
- Data sampling checks, unusual or very high/low values, typos...
- Jet fuel CO<sub>2</sub> conversion factor
- Fuel density: consistent method during the monitoring year

## Report Findings

- Record list of findings
- Recommend corrective actions
- Define timeline for closure
- Follow up to ensure corrective actions are closed



# Third Party verification

- Before the operator reports to the State Authority. The verification body is contracted by the aeroplane operator.
- The verification body must be accredited to ISO Standard 14065:2013 (Greenhouse gases – Requirements for greenhouse gas validation and verification bodies for use in accreditation or other forms of recognition) and additional CORSIA-specific requirements
- Accredited by a National Accreditation Body (NAB)





# Third Party verification

- The verification body is required to conduct the verification according to ISO Standard 14064-3:2006
- The time required for the verification process will vary on a case by case basis.
- An aeroplane operator may engage a verification body accredited in another State
- If the leader of the verification team undertakes six annual verifications for one aeroplane operator, it shall take a three consecutive year break from providing verification services to that same aeroplane operator.





# Third Party verification

- typical verification will include:
  - the collection of evidence to support the Emissions Report through interviews and observation (site visits or remote verification techniques);
  - comparison of the implemented data flow, procedures, control activities and Fuel Use Monitoring Method against the aeroplane operator's Emissions Monitoring Plan.



# Third Party verification





# Third Party verification

## ➤ General activities:

- Check status of Monitoring Plan
- Have data control procedures been applied properly?
- Are IT systems reliable? What are associated risks?
- Is data complete, accurate and consistent?
- Have data flow activities been outsourced
- Have all flights been accounted for and attributed appropriately? Identification of lease agreements and fleet
- Check exemptions



# State Order of Magnitude Check

- To verify the data against different sources of information that the State has access to.
- For an average sized aeroplane operator with a satisfactory verified Emissions Report, the order of magnitude check should not take longer than approximately three hours.
- Examples:
  - Has the Emissions Report been verified?
  - Have registration marks been indicated multiple times?
  - Departure and destination in the same State?
  - Are there State pairs with more than 250 tonnes average fuel consumption per flight? Or less than 2.5 tonnes?



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Thank you for your attention!

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