

EU ETS Verification for ‘small emitters’ (*)

A simplified approach

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(*) Non-commercial aircraft operators using the simplified procedure to monitor aircraft emissions

About the EU ETS verification

What is verification?

Which data must be verified?

What is the timeline?

Is an on-site visit required?

Who are the verifiers?

About VerifAvia

Who are we?

Who are our auditors?

IT capabilities

What is verification?

A requirement of the EU ETS Directive and the MRG

- Article 15 of EU ETS Directive:
 - *“Member States shall ensure that the reports submitted by aircraft operators [...] are verified”.*
 - *“Member States shall ensure that an aircraft operator whose report has not been verified as satisfactory [...] by 31 March each year for emissions during the preceding year cannot make further transfers of allowances until a report from that aircraft operator has been verified as satisfactory.”*
 - Annex V
- Monitoring & Reporting Guidelines (MRG):
 - Annex I, Section 10.4
 - Annex XIV, Section 9
 - Annex XV, Section 8

What is verification?

The third pillar of the MRV process



Objective: Credibility, Reliability and Accuracy of the EU ETS

What is verification?

Checking the conformity of the procedures and the correctness of the data

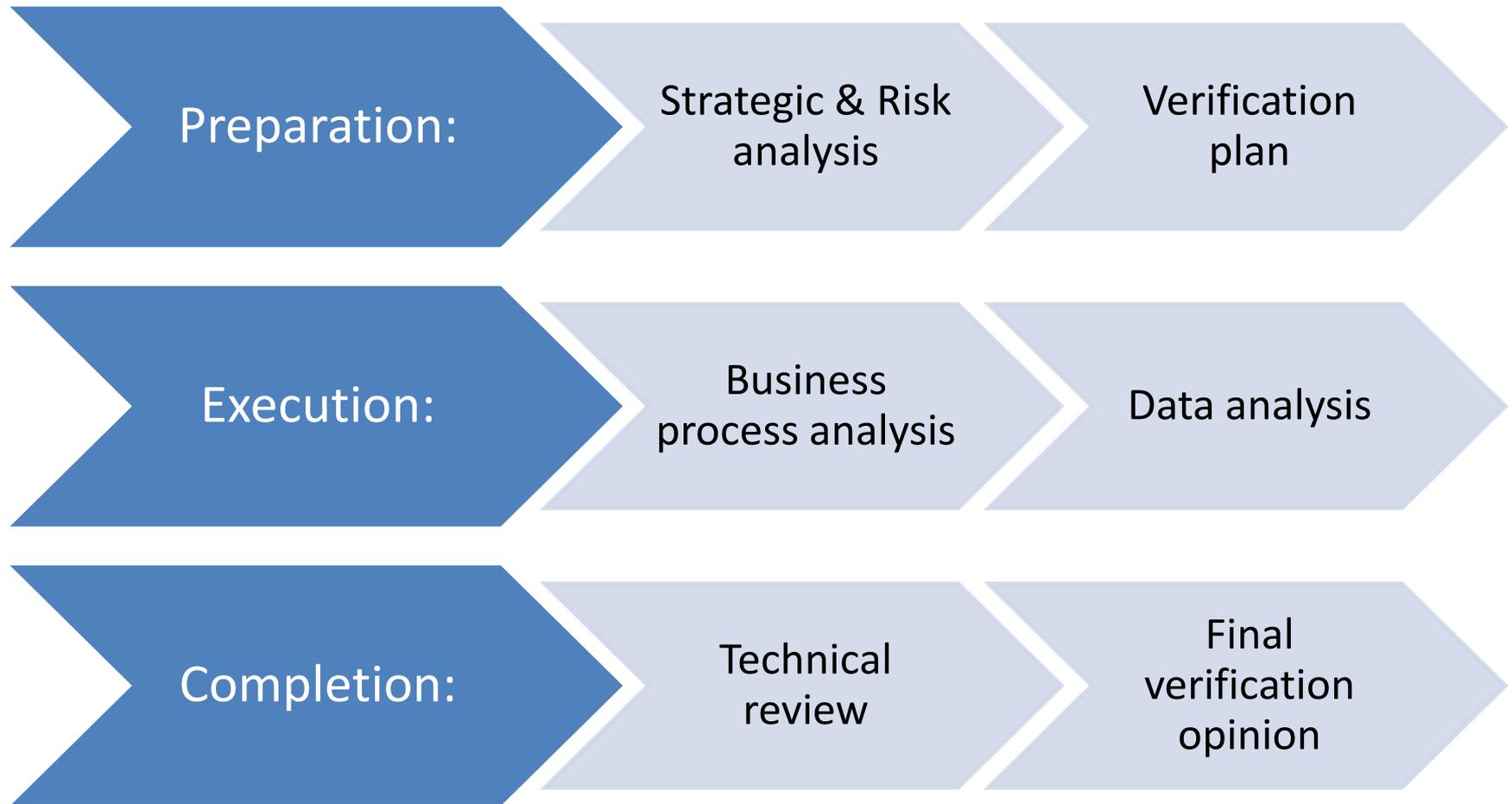
The aim of verification is to reach a verification opinion with reasonable assurance that:

The existing procedures conform with the approved monitoring plans and the EU ETS regulation

The data submitted in the annual emissions or tonne-kilometre reports are fairly stated, i.e. free from material misstatements

What is verification?

A three-stage, six-step process



What is verification?

A three-stage process: Preparation

Step 1. Strategic & Risk Analysis

- Understand the operator's organisation and the design and implementation of its EU ETS management and control systems. Identify high risk areas of system failure/breakdown.

Step 2. Verification Plan

- Use outcome of the strategic and risk analysis to prepare a verification plan which includes a detailed verification programme and a data analysis plan.

To be conducted remotely (online)

What is Verification?

A three-stage process: Execution

Step 3. Business Process Analysis

- Implement the verification plan in order to assess whether the EU ETS management system conforms with the approved monitoring plans and EU ETS rules.

Step 4. Data Analysis

- Check EU ETS data and perform plausibility checks on the entire data set. Perform data sampling and other key cross-checks.

To be conducted remotely (online), if possible

What is Verification?

A three-stage process: Completion

Step 5. Technical Review

- Review the verification pack and draft verification opinion by an independent technical reviewer who did not take part in the verification process itself.

Step 6. Final Verification Opinion

- Submit the final verification opinion to the operator who will forward it to the Competent Authority. Approval of verified data in the EU ETS registry.

To be conducted remotely (online)

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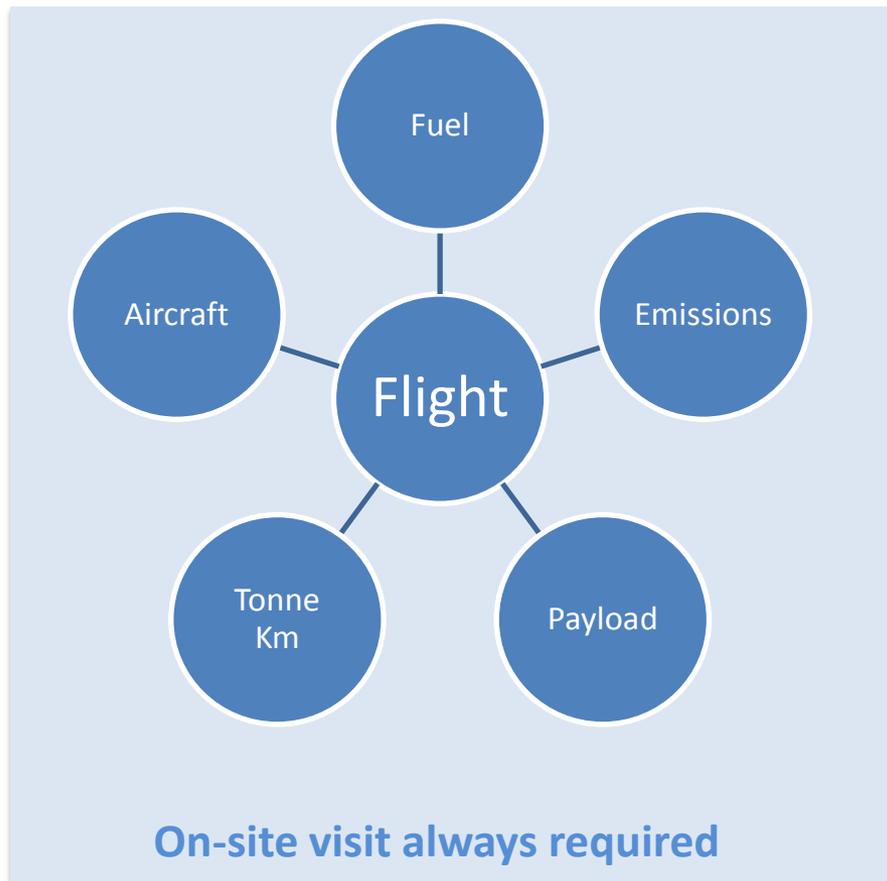
Who are our auditors?

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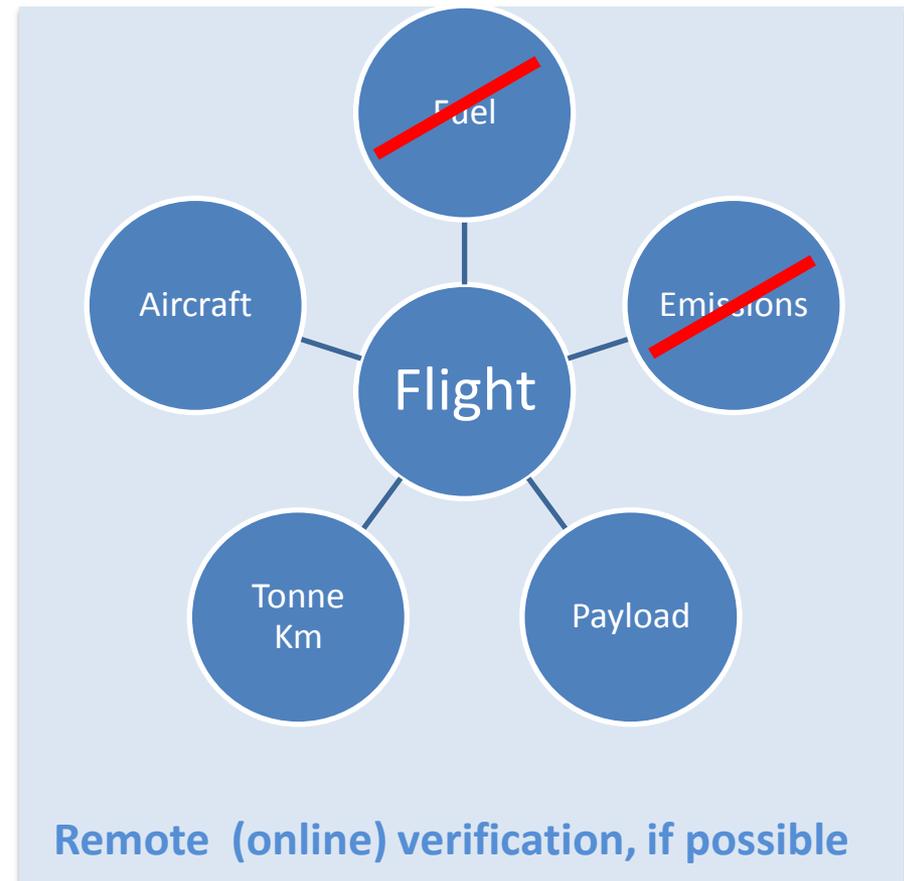
Which data must be verified?

Comparison standard vs. simplified verification

Standard verification



Simplified verification



Which data must be verified?

First data set: aircraft and EU ETS flights

Aircraft: ensure the list of aircraft that operate to, from and within the EU is complete

EU ETS Flights: ensure the list of EU ETS flights is complete

- If ETS Support Facility available: use ETS Support Facility to cross-check the reported data
- If ETS Support Facility not available: use EUROCONTROL invoices (overflying fees) to cross-check the reported data

Which data must be verified?

Second data set: fuel consumption and emissions

Fuel data: ensure the fuel consumption estimates are correct

- Check the trip distances are correct
- Cross-check fuel consumption estimates using the Small Emitters Tool or the ETS Support Facility (if available)

Emissions: ensure the correct emissions factors were used

- Aviation Gasoline (AvGas): 3.10
- Jet gasoline (Jet B): 3.10
- Jet kerosene (Jet A1 or Jet A): 3.15

Which data must be verified?

Third data set: payload and tonne-kilometer

Payload: ensure the reported payload data is correct

- Random cross-check of reported data with primary source of information (flight log, load sheet, etc.)
- Selection of flights representative of universe
- Perform plausibility checks on payload data

Tonne-kilometer: ensure the reported tonne-kilometer data is correct

- Ensure that Great Circle Distances are correct
- Ensure that there is no error in the calculation

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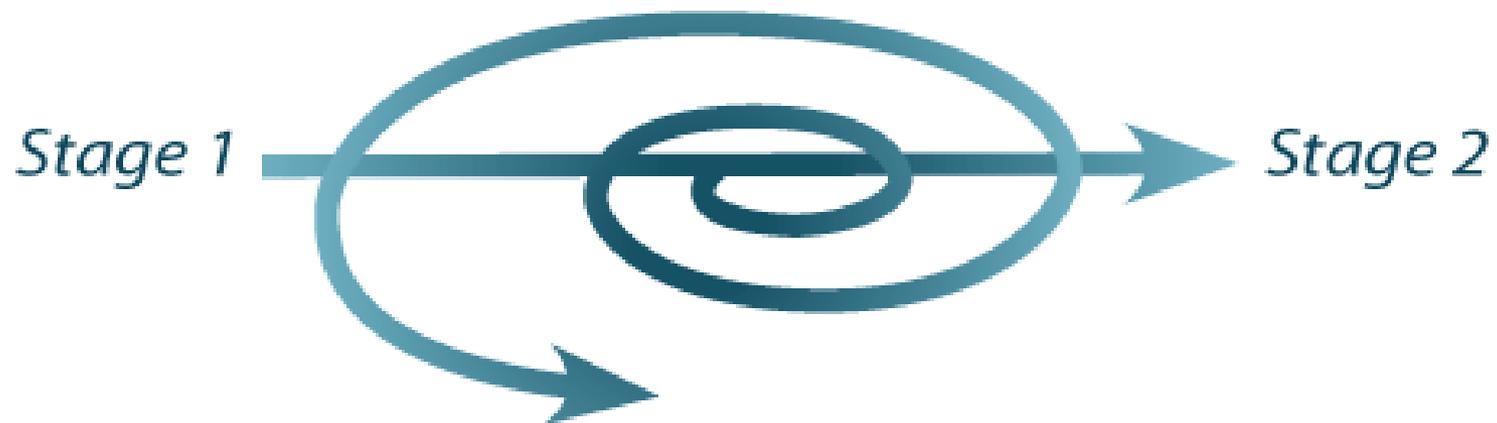
What is the timeline of verification?

Start verification in Q4 of 2010

Verification can start
in Q4 of 2010:

- To avoid pressure by conducting all the verification work at the last minute
- To allow time for corrective actions

Verification is an iterative process aiming at continuous improvement of the operator's EU ETS management system



What is the timeline of Verification?

A two-phase process

Phase 1 in
Q4 of 2010

- Strategic & Risk Analysis
- Verification Plan
- Business Process Analysis
- Partial Data Analysis

Phase 2 in
Q1 of 2011

- Full Data Analysis
- Technical Review
- Final Verification Opinion

Legal deadline: 31st of March of 2011

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Is an on-site visit required?

We favor a remote (online) verification process

- The EU ETS regulation requires an on-site visit:
 - Annex I, section 10.4.2 (c) of the MRG
 - Section 5.3.4.1 of the EA-6/03
- However, the on-site may be waived by the Competent Authority
- VerifAvia believes that an on-site visit is not required for small emitters provided that all relevant data and information can be made available remotely.
- **VerifAvia encourages remote (online) verification, whenever possible.**
- VerifAvia expects most EU Competent Authorities to waive the on-site visit for small emitters.

Is an on-site visit required?

Not in France or in the UK, uncertain in other countries

- Extract of French legislation (Decision of 9 August 2010):
 - *"A site visit is not mandatory, provided the operator submits to the verifier a paper or electronic copy of any extract required data source used in the reports, and any other information requested to the satisfaction of the verifier."*
- Opinion of the UK Environment Agency:
 - *"A site visit for EU ETS Aviation small emitters is not a mandatory requirement, but may be required if appropriate."*
- Unofficial opinion of the Irish Environmental Protection Agency:
 - *"Where the operator is eligible to use the simplified procedure for monitoring and reporting and has opted to use a Commission approved tool (at the moment that means the Eurocontrol tool) if the verifier in their strategic analysis and risk analysis has determined that a site visit is not necessary this will be acceptable."*
- In Germany: *Site visit is always required.*

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Must be accredited

- Verification bodies of GHG emissions under the EU ETS Directive:
 - Must be accredited according to **ISO 14065** or **BS EN 45011** standards and European guidance **EA-6/03**
 - Must develop and implement an **EU ETS Assurance Management System**
- About the accreditation:
 - Granted by EU national accreditation bodies (e.g. UKAS, COFRAC) of the home country
 - Accreditation process includes witness verification audits
 - Accreditation is sector specific (non-aviation accredited verifiers must also be accredited for aviation)

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Who is VerifAvia?

A verification body of GHG emissions...

A verification body of GHG emissions under the EU ETS Directive...

- ISO 14065:2007 accreditation by the United Kingdom Accreditation Service (UKAS) to provide GHG verification for the aviation sector under the EU ETS
- Approved as an aviation verifier for airlines and business jet operators reporting to the following countries: **Austria, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, France, Germany, Greece, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Portugal, Romania, Spain, the United Kingdom and Wallonia (Belgium).**
- Operations office in Paris, registered address in London
- Presence in Paris, London, Berlin and Vancouver
- Ability to communicate in English, French, German, Italian & Spanish languages

Who is VerifAvia?

...dedicated to the aviation sector

... dedicated to the aviation sector:

- EU ETS verification body dedicated to the aviation sector
- A team of aviation experts with extensive EU ETS experience who have received professional verification training in the UK
- Frequently invited to speak at conferences and to contribute to news articles about the aviation EU ETS
- Use of an EU ETS data analysis system allowing a more accurate and precise verification process
- A structure and a technical expertise that allow to conduct verification audits in the most **flexible, efficient** and **cost-effective** way

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Who are our auditors?

A team of experienced aviation EU ETS auditors...



Julien Dufour, EU ETS Auditor & Technical Reviewer
Languages: French, English, Spanish. Based in Paris.



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Languages: German, English, Spanish. Based in Berlin.

Who are our auditors?

... who have extensive aviation EU ETS experience throughout the world



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IT Systems capabilities Overview



VEDAS (VerifAvia EU ETS Data Analysis System)

- Excel-based
- Developed by VerifAvia
- Automatic generation of EU ETS reports
- Automatic identification of data gaps, data mismatches, abnormal values



Small Emitters Tool

- Excel-based
- Developed by EUROCONTROL
- Estimates fuel consumption based on aircraft and trip length



ETS Support Facility

- Monitoring, Reporting and Verification tool
- Expected users: operators, regulators and verifiers
- Under development by EUROCONTROL



ICAO aircraft codes database

IT Systems capabilities

Links for more information on the EUROCONTROL systems

- **Small Emitters Tool:**
 - To download:
 - [European Commission Press Release](#)
 - [Commission Regulation](#)
 - [Small Emitters Tool](#)
 - Links:
 - EUROCONTROL [web page](#)
 - European Commission [web page](#)
- **ETS Support Facility:**
 - To download:
 - [Presentation](#) from EUROCONTROL
 - Links:
 - EUROCONTROL [web page](#)

Thank you!

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