

ANNUAL EMISSIONS MONITORING PLAN

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Information about this file:

This monitoring plan was submitted by:
 Unique Identifier of the aircraft operator (CRCO No.):
 Version Number of this monitoring plan:

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If your competent authority requires you to hand in a signed paper copy of the monitoring plan, please use the space below for signature:

Date

Name and Signature of
legally responsible person

Template version information:

| | |
|-----------------------|----------------------------------|
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GUIDELINES AND CONDITIONS

- 1 Directive 2003/87/EC, as amended most recently by Directive 2009/29/EC (hereinafter "the (revised) EU ETS Directive") requires aircraft operators who are included in the European Greenhouse Gas Emission Trading Scheme (the EU ETS) to monitor and report their emissions and tonne-kilometre data, and to have the reports verified by an independent and accredited verifier.

The Directive can be downloaded from:

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:2003L0087:20090625:EN:PDF>

- 2 The Monitoring and Reporting Regulation (Commission Regulation (EU) No 601/2012, hereinafter the "MRR"), defines further requirements for monitoring and reporting. The MRR can be downloaded from:

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2012:181:0030:0104:EN:PDF>

Article 12 of the MRR sets out specific requirements for the content and submission of the monitoring plan and its updates. Article 12 outlines the importance of the Monitoring plan as follows:

The monitoring plan shall consist of a detailed, complete and transparent documentation of the monitoring methodology of a specific installation or aircraft operator and shall contain at least the elements laid down in Annex I.

Furthermore, Article 74(1) states:

Member States may require the operator and aircraft operator to use electronic templates or specific file formats for submission of monitoring plans and changes to the monitoring plan, as well as for submission of annual emissions reports, tonne-kilometre data reports, verification reports and improvement reports.

Those templates or file format specifications established by the Member States shall, at least, contain the information contained in electronic templates or file format specifications published by the Commission.

This file constitutes the said template for monitoring plans for emissions of aircraft operators developed by the European Commission and includes the requirements defined in Annex I as well as further requirements to assist the aircraft operator in demonstrating compliance with the MRR.

Under certain conditions as described below, it may have been amended to a limited extent by a Member State's competent authority.

This monitoring plan template represents the views of the Commission services at the time of publication.

This is the final version of the monitoring plan template for aircraft operators, as endorsed by the Climate Change Committee in its meeting on 11 July 2012.

- 3 All Commission guidance documents on the Monitoring and Reporting Regulation can be found at:
http://ec.europa.eu/clima/policies/ets/monitoring/index_en.htm
- 4 The EU ETS for aviation has been expanded to cover the three EEA EFTA States Iceland, Liechtenstein and Norway, and will cover also Croatia from 2013 onwards. This means that aircraft operators also need to monitor and report their emissions and tonne-kilometre data from domestic flights within the EEA EFTA States, flights between the EEA EFTA States and flights between EEA EFTA States and third countries.

Accordingly, all references to Member States in this template should be interpreted as including all 30 (31 from 2013) EEA States. The EEA comprises the 27 (28 from 2013) EU Member States, Iceland, Liechtenstein and Norway.

Before you use this file, please carry out the following steps:

- Make sure you know which Member State is responsible for administering you (the aircraft operator to which this monitoring plan refers). The criteria for defining the administering Member State are set out by Art. 18a of the EU ETS Directive. A list specifying the administering Member State for each aircraft operator can be found on the Commission's website (see below).
 - Identify the Competent Authority (CA) responsible for your case in that administering Member State (there may be more than one CA per Member State).
 - Check the CA's webpage or directly contact the CA in order to find out if you have the correct version of the template. The template version is clearly indicated on the cover page of this file.
 - Some Member States may require you to use an alternative system, such as Internet-based forms instead of a spreadsheet. Check your administering Member State requirements. In this case the CA will provide further information to you.
 - Read carefully the instructions below for filling this template.
- 5 This Monitoring Plan must be submitted to your Competent Authority to the following address:

Detail address to be provided by the Member State

- 6 The CA may contact you to discuss modifications to your monitoring plan to ensure the accurate and verifiable monitoring and reporting of annual emissions, according to the general and specific requirements of the MRR. Notwithstanding Article 16(1) of the MRR, upon notification of approval from the CA you will use the latest approved version of the monitoring plan as the methodology to determine annual emissions and implement your data acquisition and handling activities and control activities. It will serve also as a reference for verification of your annual emissions report.
- 7 You must notify any proposals for significant modifications to the monitoring plan to the CA without undue delay. Any significant change in your monitoring methodology shall be subject to approval by the CA, as set in Article 14 and 15 of the MRR. Where you can assume reasonably (in accordance with Article 15) that necessary updates of the monitoring plan are not significant, you may notify the CA of those updates jointly once per year in accordance with the deadline specified in that Article (subject to competent authority agreement).
- 8 You must implement and keep records of all modifications to the monitoring plan in accordance with Article 16 of the MRR.
- 9 Contact your Competent Authority if you need assistance to complete your Monitoring Plan. Some Member States have produced guidance documents which you may find useful.
- 10 **Confidentiality statement- The information submitted in respect of this application may be subject to public access to information requirements, including Directive 2003/4/EC on public access to environmental information. If you consider that any information you provide in connection with your application should be treated as commercially confidential, please let your Competent Authority know. You should be aware that under the provisions of Directive 2003/4/EC, the Competent Authority may be obliged to disclose information even where the applicant requests that it is kept confidential.**

Information sources:

EU Websites:

EU-Legislation: <http://eur-lex.europa.eu/en/index.htm>
 EU ETS general: http://ec.europa.eu/clima/policies/ets/index_en.htm
 Aviation EU ETS: http://ec.europa.eu/clima/policies/transport/aviation/index_en.htm
 Monitoring and Reporting in the EU ETS:
http://ec.europa.eu/clima/policies/ets/monitoring/index_en.htm

Other Websites:

<to be provided by Member State>

Helpdesk:

<to be provided by Member State, if relevant>

How to use this file:

In order to minimize your workload, you may choose to enter only in one monitoring plan all the data which is needed identically in both monitoring plans (emissions and tonne-kilometre). This choice has to be made in input field 2(c). It is recommended to use the annual emission monitoring plan as the primary document, as this requires generally the more complete information. If you do not send both documents to the Competent Authority at the same time, you have to fill in this data in the first document.

It is recommended that you go through the file from start to end. There are a few functions which will guide you through the form which depend on previous input, such as cells changing colour if an input is not needed (see colour codes below).

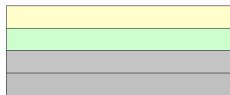
In several fields you can choose from predefined inputs. For selecting from such a "drop-down list" either click with the mouse on the small arrow appearing at the right border of the cell, or press "Alt-CursorDown" when you have selected the cell. Some fields allow you to input your own text even if such drop-down list exists. This is the case when drop-down lists contain empty list entries.

Colour codes and fonts:**Black bold text:**

Smaller italic text:

This is text provided by the Commission template. It should be kept as it is.

This text gives further explanations. Member States may add further explanations in MS specific versions of the template.



Light yellow fields indicate input fields.

Green fields show automatically calculated results. Red text indicates error messages (missing data etc).

Shaded fields indicate that an input in another field makes the input here irrelevant.

Grey shaded areas should be filled by Member States before publishing customized version of the template.

Member State-specific guidance is listed here:

A. Monitoring Plan versions

1 List of monitoring plan versions

This sheet is used for tracking the actual version of the monitoring plan. Each version of the monitoring plan should have a unique version number, and a reference date. Depending on the requirements of the administering Member State, it is possible that the document is exchanged between competent authority and aircraft operator with various updates, or that the aircraft operator alone keeps track of the versions. In any case, the aircraft operator should keep in his files a copy of each version of the monitoring plan.

The status of the monitoring plan at the reference date should be described in the "status" column. Possible status types include "submitted to the competent authority (CA)", "approved by the CA", "working draft" etc.

Please note that monitoring of the emissions of the aircraft operator must always be carried out in accordance with the latest approved version of the monitoring plan, except in cases where an update of the MP has already been submitted to the CA and/or is pending approval. In accordance with Article 16(1), in such situations the monitoring must be carried out in parallel using the latest approved as well as the latest MP submitted for approval.

| Version No | Reference date | Status at reference date | Chapters where modifications have been made. Brief explanation of changes |
|------------|----------------|--------------------------|---|
| 1 | | | |
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Please add more lines if necessary

IDENTIFICATION OF THE AIRCRAFT OPERATOR AND DESCRIPTION OF ACTIVITIES

2 Identification of Aircraft Operator

- (a) **Please enter the name of the aircraft operator:**
This name should be the legal entity carrying out the aviation activities defined in Annex I of the EU ETS Directive
- (b) **Unique Identifier as stated in the Commission's list of aircraft operators:**
This identifier can be found on the list published by the Commission pursuant to Article 18a(3) of the EU ETS Directive.
- (c) **Please choose the primary monitoring plan:**
Explanation: There are several fields in this template that are identical in the template for the tonne-kilometre data monitoring plan, like address information, and information regarding the aircraft fleet. In order to avoid unnecessary duplication of reporting, you may select here either the annual emission monitoring plan (this file) or the monitoring plan for tonne-kilometre data as the primary document. As soon as you have made your selection, you have to fill in the requested information only once in the selected document.
- (d) **Is this a new or an updated monitoring plan?**
Note: If you are using the current file to update a previous version, you have to select "Monitoring plan for Annual Emissions" under 2(c). If this is an updated monitoring plan, your competent authority may allow that you fill in only new information instead of the complete data.
Actual version number of the monitoring plan
Note: This number will also be displayed on the cover page of this file. It should be consistent with your entry in section 1.
[<<< If you have selected the t-km monitoring plan under 2\(c\), click here to proceed to section 3a >>>](#)
- (e) **If different to the name given in 2(a), please also enter the name of the aircraft operator as it appears on the Commission's list of operators:**
The name of the aircraft operator on the list pursuant to Article 18a(3) of the EU ETS Directive may be different to the actual aircraft operator's name entered in 2(a) above.
- (f) **Please enter the unique ICAO designator used in the call sign for Air Traffic Control (ATC) purposes, where available:**
The ICAO designator should be that specified in box 7 of the ICAO flight plan (excluding the flight identification) as specified in ICAO document 8585. If you do not specify an ICAO designator in flight plans, please select "n/a" from the drop down list and proceed to 2(g).
- (g) **Where a unique ICAO designator for ATC purposes is not available, please provide the aircraft registration markings used in the call sign for ATC purposes for the aircraft you operate.**
If a unique ICAO designator is not available, enter the identification for ATC purposes (tail numbers) of all the aircraft you operate as used in box 7 of the flight plan. (Please separate each registration with a semicolon.) Otherwise enter "n/a" and proceed.
- (h) **Please enter the administering Member State of the aircraft operator**
pursuant to Art. 18a of the Directive.
- (i) **Competent authority in this Member State:**
In some Member States there is more than one Competent Authority dealing with the EU ETS for aircraft operators. Please enter the name of the appropriate authority, if applicable. Otherwise choose "n/a".
- (j) **Please enter the number and issuing authority of the Air Operator Certificate (AOC) and Operating Licence granted by a Member State if available:**
- | | |
|----------------------------------|---|
| Air Operator Certificate: | <input style="width: 100%; height: 15px;" type="text"/> |
| AOC Issuing authority: | <input style="width: 100%; height: 15px;" type="text" value="Please select"/> |
| Operating Licence: | <input style="width: 100%; height: 15px;" type="text"/> |
| Issuing authority: | <input style="width: 100%; height: 15px;" type="text" value="Please select"/> |
- (k) **Please enter the address of the aircraft operator, including postcode and country:**
- | | |
|------------------------------|---|
| Address Line 1 | <input style="width: 100%; height: 15px;" type="text"/> |
| Address Line 2 | <input style="width: 100%; height: 15px;" type="text"/> |
| City | <input style="width: 100%; height: 15px;" type="text"/> |
| State/Province/Region | <input style="width: 100%; height: 15px;" type="text"/> |
| Postcode/ZIP | <input style="width: 100%; height: 15px;" type="text"/> |
| Country | <input style="width: 100%; height: 15px;" type="text" value="Please select"/> |
| Email address | <input style="width: 100%; height: 15px;" type="text"/> |
- (l) **If different to the information given above in part (k), please enter the contact address of the aircraft operator (including postcode) in the administering Member State, if any:**
- Address Line 1**

| | |
|-----------------------|---------------|
| Address Line 2 | |
| City | |
| State/Province/Region | |
| Postcode/ZIP | |
| Country | Please select |
| Email address | |

(m) Please provide details of the ownership structure of your firm and whether you have subsidiaries or parent companies

Please include in your description the unique ICAO designator of your subsidiaries or parent company, and indicate the administering Member State of these entities, if applicable. Add attachments to your submission as necessary to show a diagram of your ownership structure.

Please note that your Administering Member State may ask you further details about contact addresses and company structure (see worksheet "MS specific content").

(n) Description of the activities of the aircraft operator falling under Annex I of the EU ETS Directive

Please specify whether you are a commercial or non-commercial air transport operator, whether you operate scheduled, non-scheduled flights or both and, whether the scope of your operations covers only the EEA or also non EEA countries.

| | |
|-----------------------|---------------|
| Operator status | Please select |
| Scheduling of flights | Please select |
| Scope of operations | Please select |

Commercial air transport operators: Please attach a copy of Annex I of your AOC to this monitoring plan as evidence.

(o) Please provide further description of your activities as necessary.

3 Contact details and Address for Service

(a) Who can we contact about your monitoring plan?

It will help us to have someone who we can contact directly with any questions about your monitoring plan. The person you name should have the authority to act on your behalf. This could be an agent acting on behalf of the aircraft operator.

| | |
|---|---------------|
| Title: | Please select |
| First Name: | |
| Surname: | |
| Job title: | |
| Organisation name (if acting on behalf of the aircraft operator): | |
| Telephone number: | |
| Email address: | |

[<<< If you have selected the t-km monitoring plan under 2\(c\), click here to proceed to section 4 >>>](#)

(b) Please provide an address for receipt of correspondence

You must provide an address for receipt of notices or other documents under or in connection with the EU Greenhouse Gas Emissions Trading Scheme. Please provide an electronic address and a postal address, if applicable, within the administering Member State.

| | |
|------------------------|---------------|
| Title: | Please select |
| First Name: | |
| Surname: | |
| Email address: | |
| Telephone number: | |
| Address Line 1: | |
| Address Line 2: | |
| City: | |
| State/Province/Region: | |

Postcode/ZIP:
Country:

| |
|---------------|
| |
| Please select |

EMISSION SOURCES and FLEET CHARACTERISTICS

4 About your operations

Under 2(c) you have chosen: ---

(a) Please provide a list of the aircraft types operated at the time of submission of this monitoring plan.

The list should include all aircraft types (by ICAO aircraft type designator - DOC8643), which you operate at the time of submission of this monitoring plan and the number of aircraft per type, including owned aircraft, as well as leased-in aircraft. You are required to list only aircraft types used for carrying out activities falling under Annex I of the EU ETS Directive.

You may use the second column to further specify sub-types of that aircraft type, if relevant for defining the monitoring methodology. This can be useful e.g. if there are different types of on-board measurement systems, different data transmission systems (e.g. ACARS) etc.

For each aircraft type you have to specify which fuels will be used (which "source streams" will be associated with the emission sources). You can do that by entering "1" or "TRUE" in the appropriate fields. Leave the field blank if the fuel is not used.

Please note: A part of the data to be entered in this subsection is identical to the information in the t-km data monitoring plan. However, more information is needed for emission monitoring. Thus the data has to be filled in here. You may reduce your workload by referring from the t-km monitoring plan to the information given here.

Date of submission of monitoring plan:

| Generic aircraft type (ICAO aircraft type designator) | Sub-type (optional input) | Number of aircraft operated at time of submission | jet kerosene (Jet A1 or Jet A) | jet gasoline (Jet B) | aviation gasoline (AvGas) | Biofuel | other alternative fuel |
|---|---------------------------|--|-----------------------------------|-------------------------|------------------------------|---------|---------------------------|
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Please add further lines if needed. For this purpose it is recommended to copy a full line above, and then use the "insert copied cells" command available in the context menu of the right mouse click. If you use only the "insert line" command, the correct format is not ensured.

Only in case of very large fleets you should provide the list as a separate sheet in this file.

(b) Please provide an indicative list of additional aircraft types expected to be used.

Please note that this list should not include any of the aircraft listed in table 4(a) above. Where available, please also provide an estimated number of aircraft per type, either as a number or an indicative range.

| Generic aircraft type (ICAO aircraft type designator) | Sub-type (optional input) | Estimated number of aircraft to be operated | jet kerosene (Jet A1 or Jet A) | jet gasoline (Jet B) | aviation gasoline (AvGas) | Biofuel | other alternative fuel |
|---|---------------------------|--|-----------------------------------|-------------------------|------------------------------|---------|---------------------------|
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Please add further lines if needed. For this purpose it is recommended to copy a full line above, and then use the "insert copied cells" command available in the context menu of the right mouse click. If you use only the "insert line" command, the correct format is not ensured.

Only in case of very large fleets you should provide the list as a separate sheet in this file.

[<<< If you have chosen the t-km monitoring plan, click here to continue with section 4\(f\). >>>](#)

(c) Please provide details about the systems, procedures and responsibilities used to track the completeness of the list of emission sources (aircraft used) over the monitoring year.

The items specified below should ensure the completeness of monitoring and reporting of the emissions of all aircraft used during the monitoring year, including owned aircraft, as well as leased-in aircraft.

| | |
|---|--|
| Title of procedure | |
| Reference for procedure | |
| Brief description of procedure | |
| Post or department responsible for data maintenance | |
| Location where records are kept | |
| Name of system used (where applicable) | |

(d) Please provide details about the procedures to monitor the completeness of the list of flights operated under the unique designator by aerodrome pair.

Please detail the procedures and systems in place to keep an updated detailed list of aerodrome pairs and flights operated during the monitoring period as well as the procedures in place to ensure completeness and non-duplication of data.

| | |
|---|--|
| Title of procedure | |
| Reference for procedure | |
| Brief description of procedure | |
| Post or department responsible for data maintenance | |
| Location where records are | |
| Name of system used (where applicable) | |

(e) Please provide details about the procedures for determining whether flights are covered by Annex I of the Directive, ensuring completeness and avoiding double counting.

Please detail the systems in place to keep an updated detailed list of flights during the monitoring period which are included/excluded from EU ETS, as well as the procedures in place to ensure completeness and non-duplication of data.

| | |
|---|--|
| Title of procedure | |
| Reference for procedure | |
| Brief description of procedure | |
| Post or department responsible for data maintenance | |
| Location where records are | |
| Name of system used (where applicable) | |

(f) Please provide an estimate/prediction of the total annual fossil CO2 emissions for Annex 1 activities.

The figure should only include those flights, which are covered by EU ETS.

tonnes CO2

5 Eligibility for simplified procedures for small emitters

(a) Please confirm whether you operate fewer than 243 flights per period for three consecutive four-month periods; or operate flights with total annual fossil CO2 emissions lower than 25 000 tonnes per year?

Operators who are considered to be small emitters may choose to use simplified procedures to estimate fuel consumption using tools implemented by Eurocontrol or another relevant organisation. In this case, complete the worksheet "simplified calculation" instead of the worksheet "calculation".

<<< If you have chosen "False", please continue directly to section 6. >>>

- (b) If you have selected "TRUE" in response to 5(a), do you intend to use simplified procedures to estimate fuel consumption?**

<<< If you have chosen "False", please continue directly to section 6. >>>

- (c) If you have selected "TRUE", please provide information to support your eligibility for the simplified calculation procedures and then proceed directly to the tab "Simplified Calculation" (Section 9).**

Provide suitable information to support the fact that you operate fewer than 243 flights per period for three consecutive four-month periods or that your annual emissions are lower than 25 000 tonnes of CO2 per year. Where necessary, you can attach further documents (see Section 15).

CALCULATION OF CO2 EMISSIONS

<<< Go to Section 9 if eligible for simplified calculation >>>

6 Activity data

(a) Please specify the methodology used to measure fuel consumption for each aircraft type.

In each case, the method chosen should provide for the most complete and timely data combined with the lowest uncertainty without incurring unreasonable costs. Note that the Aircraft types are automatically taken from section 4(a).

Method A Actual fuel consumption for each flight (tonnes) = Amount of fuel contained in aircraft tanks once fuel uplift for the flight is complete (tonnes) - Amount of fuel contained in aircraft tanks once fuel uplift for subsequent flight is complete (tonnes) + Fuel uplift for that subsequent flight (tonnes)

Method B Actual fuel consumption for each flight (tonnes) = Amount of fuel remaining in aircraft tanks at block-on at the end of the previous flight (tonnes) + Fuel uplift for the flight (tonnes) - Amount of fuel contained in tanks at block-on at the end of the flight (tonnes)

| Generic aircraft type (ICAO aircraft type designator) and sub-type | Method (A/B) | Data source used to determine fuel uplift | Methods for transmitting, storing and retrieving data |
|--|---------------|---|---|
| | Please select | Please select | Please select |
| | Please select | Please select | Please select |
| | Please select | Please select | Please select |
| | Please select | Please select | Please select |
| | Please select | Please select | Please select |
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Please add further lines if needed. For this purpose it is recommended to copy a full line above, and then use the "insert copied cells" command available in the context menu of the right mouse click. If you use only the "insert line" command, the correct format is not ensured.

Thereafter the formulas in row C must be corrected in order to point to the correct aircraft type in section 4(a).

Only in case of very large fleets you should provide the list as a separate sheet in this file.

(b) If the chosen methodology (Method A/Method B) is not applied for all aircraft types, please provide a justification for this approach in the box below

(c) Please provide details about the procedure to be used for defining the monitoring methodology for additional aircraft types.

While this monitoring plan in general defines the monitoring methodology for the aircraft already in your fleet at the time of submission of the monitoring plan to the competent authority (see point 4(a)), a defined procedure is needed to ensure that any additional aircraft that are expected to be used (e.g. those listed under 4(b)) will be properly monitored as well. The items specified below should ensure that a monitoring methodology is defined for any aircraft type operated.

| | |
|---|--|
| Title of procedure | |
| Reference for procedure | |
| Brief description of procedure | |
| Post or department responsible for data maintenance | |
| Location where records are kept | |
| Name of system used (where applicable). | |

(d) Complete the following table with information about the systems and procedures to monitor fuel consumption per flight in both owned and leased-in aircraft.

The procedure must include the selected tiers, a description of the measurement equipment, and the procedures for recording, retrieving, transmitting and storing information.

| | |
|---|--|
| Title of procedure | |
| Reference for procedure | |
| Brief description of procedure | |
| Post or department responsible for data maintenance | |
| Location where records are kept | |
| Name of system used (where applicable). | |

(e) Please specify the method used to determine the density used for fuel uplifts and fuel in tanks, for each aircraft type.

Actual density values should be used unless it is shown to the satisfaction of the Competent Authority that actual values are not available and a standard density factor of 0.8 kg/l shall be applied.

| Generic aircraft type (ICAO aircraft type designator) and sub-type | Method to determine actual density values of fuel uplifts | Method to determine actual density values of fuel in tanks | Justification for using standard value if measurement is not feasible, and other remarks |
|--|---|--|--|
| | Please select | Please select | |
| | Please select | Please select | |
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| | Please select | Please select | |
| | Please select | Please select | |

Please add further lines if needed. For this purpose it is recommended to copy a full line above, and then use the "insert copied cells" command available in the context menu of the right mouse click. If you use only the "insert line" command, the correct format is not ensured.

Thereafter the formulas in row C must be corrected in order to point to the correct aircraft type in section 4(a).

Only in case of very large fleets you should provide the list as a separate sheet in this file.

- (f) Complete the following table with information about the procedures for measurement of the density used for fuel uplifts and fuel in tanks, in both owned and leased-in aircraft.

The procedure must include a description of the measurement instruments involved, or if measurement is not feasible, justification for applying the standard value.

| | |
|---|--|
| Title of procedure | |
| Reference for procedure | |
| Brief description of procedure | |
| Post or department responsible for data maintenance | |
| Location where records are kept | |
| Name of system used (where applicable) | |

- (g) If applicable, provide a list of deviations from the general methodologies for determining fuel uplifts/fuel contained in the tank and density for specific aerodromes.

Where necessary due to special circumstances, such as fuel suppliers who cannot provide all of the required data for a certain methodology, a list of deviations from the general methodologies should be given for specific aerodromes. For example, if a fuel supplier at a specific aerodrome cannot provide the actual density data, specify the alternative approach proposed. Please list aerodromes using their ICAO designator, separated by semicolons.

| Type of deviation | Justification of special circumstances | Aerodromes for which deviation applies |
|-------------------|--|--|
| | | |
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Please add further lines if needed. For this purpose it is recommended to copy a full line above, and then use the "insert copied cells" command available in the context menu of the right mouse click. If you use only the "insert line" command, the correct format is not ensured.

7 Uncertainty Assessment

- (a) Where on-board systems are used for measuring fuel uplifts and the quantity remaining in the tank, please provide uncertainty associated with the on-board measurement equipment.

Where fuel uplifts are determined solely based on the invoiced quantity of fuel or other appropriate information provided by the supplier, no further proof of uncertainty level is required other than an estimate of the uncertainty of the measurement of fuel remaining in the tank.

Where fuel uplifts are determined by on-board systems, uncertainty values should be taken from equipment manufacturer's specification. An estimate using the ranges in the drop-down list should be used only if more precise values are not available.

| Generic aircraft type (ICAO aircraft type designator) and sub-type | Uncertainty of measurement of fuel remaining in the tank | Are fuel uplifts determined solely by the invoiced quantity of fuel or other appropriate information provided by the supplier? | If no: | |
|--|--|--|--|--|
| | | | Measurement equipment uncertainty (+/-%) | Location of evidence of routine checks of the fuel measurement systems |
| | | Please select | Please select | |
| | | Please select | Please select | |
| | | Please select | Please select | |
| | | Please select | Please select | |
| | | Please select | Please select | |
| | | Please select | Please select | |
| | | Please select | Please select | |
| | | Please select | Please select | |
| | | Please select | Please select | |
| | | Please select | Please select | |

Please add further lines if needed. For this purpose it is recommended to copy a full line above, and then use the "insert copied cells" command available in the context menu of the right mouse click. If you use only the "insert line" command, the correct format is not ensured.

Thereafter the formulas in row C must be corrected in order to point to the correct aircraft type in section 4(a).

Only in case of very large fleets you should provide the list as a separate sheet in this file.

- (b) Please identify the main sources of uncertainty and their associated levels of uncertainty for your fuel consumption measurements.

You are not required to carry out a detailed uncertainty assessment, provided that you identify the sources of uncertainties and their associated levels of uncertainty. Uncertainties for other components than those listed in 7(a) may be based on conservative expert judgement.

| Source of uncertainty | Level of uncertainty | Comments on level of uncertainty |
|-----------------------|----------------------|----------------------------------|
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| | | |

Please add further lines if needed. For this purpose it is recommended to copy a full line above, and then use the "insert copied cells" command available in the context menu of the right mouse click. If you use only the "insert line" command, the correct format is not ensured.

(c) Please provide details about the uncertainty threshold you intend to meet for each source stream (fuel type).

For each source stream (fuel type), specify the estimated annual CO2 emission from the source stream, whether the source stream is considered to be a major or minor source and the corresponding measurement uncertainty threshold (representing the maximum measurement uncertainty during the monitoring year) you will meet.

Please use the blank fields in column D to name any alternative and/or biofuels which you will use. State the estimated fossil CO2 emissions arising from each listed fuel type, in order to provide evidence for the correct tier choice. Please ensure that the total emissions are consistent with the answer given in section 4(f)

| | Source stream (Fuel type) | Estimated annual fossil CO2 emissions from each fuel | % of total estimated CO2 emissions | Source stream classification | Fuel consumption uncertainty | Tier number |
|------------------------------------|--------------------------------|--|------------------------------------|------------------------------|------------------------------|-------------|
| Std Fuels | Jet kerosene (Jet A1 or Jet A) | | - | Please select | Please select | |
| | Jet gasoline (Jet B) | | - | Please select | Please select | |
| | Aviation gasoline (AvGas) | | - | Please select | Please select | |
| Alternatives | | | - | Please select | Please select | |
| | | | - | Please select | Please select | |
| | | | - | Please select | Please select | |
| | | | - | Please select | Please select | |
| Biofuels | | | - | Please select | Please select | |
| | | | - | Please select | Please select | |
| | | | - | Please select | Please select | |
| | | | - | Please select | Please select | |
| Total for all fuel types: | | 0 | 0,0% | | | |
| Estimate given under section 4(f): | | 0 | | | | |
| Difference: | | 0 | | | | |

(d) Please provide evidence that each source stream meets the overall uncertainty threshold as stipulated in table 7(c) above.

Evidence may be in the form of manufacturer or fuel supplier specifications.

Please reference the file/document attached to your monitoring plan in the box below.

| |
|--|
| |
|--|

(e) Complete the following table with information about the procedure used to ensure that the total uncertainty of fuel measurements will comply with the requirements of the selected tier.

The procedure must demonstrate that the uncertainty of fuel measurements will comply with the requirements of the selected tier, referring to calibration certificates of measurement systems (if applicable), national laws, clauses in customer contracts or fuel suppliers' accuracy standards. If components of the measurement system cannot be calibrated, state in the procedure your alternative control activities.

| | |
|---|--|
| Title of procedure | |
| Reference for procedure | |
| Brief description of procedure | |
| Post or department responsible for data maintenance | |
| Location where records are kept | |
| Name of system used (where applicable). | |

(f) Complete the following table with information about the procedure used to ensure regular cross-checks between uplift quantity as provided by invoices and uplift quantity indicated by on-board measurement.

Where deviations are observed, corrective actions must be taken in accordance with Article 63 of the MRR.

| | |
|---|--|
| Title of procedure | |
| Reference for procedure | |
| Brief description of procedure | |
| Post or department responsible for data maintenance | |
| Location where records are kept | |
| Name of system used (where applicable). | |

8 Emission factors

(a) Please confirm that you will use the following standard emission factors for commercial standard aviation fuels

| Type of aviation fuel | Default IPCC value (tonnes CO2 /tonne fuel) | Confirm |
|--------------------------------|---|---------------|
| Jet kerosene (Jet A1 or Jet A) | 3,15 | Please select |
| Jet gasoline (Jet B) | 3,10 | Please select |
| Aviation gasoline (AvGas) | 3,10 | Please select |

(b) If applicable, please provide a description of the procedure used to determine the emission factors, net calorific values and biomass content of alternative fuels (source streams).

Where applicable, the description of the procedure must identify how emissions factors, net calorific values and biomass fractions are derived for approval by the competent authority. These may be from sampling and analysis, from fuel purchase records, in the case of commercially traded fuels, or from guidelines provided by the Commission under Article 53. Where relevant, this procedure must include the method how compliance with sustainability criteria for biofuels is demonstrated.

| | |
|---|--|
| Title of procedure | |
| Reference for procedure | |
| Brief description of procedure | |
| Post or department responsible for data maintenance | |

| | |
|--|--|
| Location where records are kept | |
| Name of system used (where applicable) | |

(c) If applicable, please describe the approaches used for sampling batches of alternative fuels.

For each source stream, succinctly describe the approach to be used for sampling fuels and materials for the determination of emission factor, net calorific value and biomass content for each fuel or material batch

| Source stream (fuel type) | Parameter | Description | conform with Standard (EN, ISO,...) | Frequency |
|---------------------------|---------------|-------------|-------------------------------------|---------------|
| | Please select | | | Please select |
| | Please select | | | Please select |

(d) If applicable, please describe the approaches used to analyse alternative fuels (including biofuels) for the determination of net calorific value, emission factors and biogenic content (as relevant).

For each source stream, succinctly describe the approach to be used for analysing fuels and materials for the determination of emission factor, net calorific value and biomass content for each fuel or material batch (if applicable to the selected tier).

| Source stream (fuel type) | Parameter | Description | conform with Standard (EN, ISO...) | Frequency |
|---------------------------|---------------|-------------|------------------------------------|---------------|
| | Please select | | | Please select |
| | Please select | | | Please select |

(e) If applicable, please provide a list of laboratories used to undertake the analysis and confirm whether the laboratory is accredited for this analysis according to EN ISO/IEC 17025, or otherwise reference the evidence to be submitted to demonstrate that the laboratory is technically competent in accordance with Article 34.

| Name of laboratory | Analytical procedures | Is laboratory EN ISO/IEC17025 accredited for this analysis? | If no, reference evidence to be submitted |
|--------------------|-----------------------|---|---|
| | | Please select | |
| | | Please select | |
| | | Please select | |
| | | Please select | |

[<<< Click here to proceed to section 10 "Data gaps" >>>](#)

SIMPLIFIED CALCULATION OF CO2 EMISSIONS

9 Simplified calculation

You may apply the simplified procedure for the calculation of activity data described in Article 54 of the MRR if you are operating either:
 - fewer than 243 flights per period of three consecutive four-month periods; or
 - flights with total annual emissions lower than 25,000 tonnes per year

Entries here are only required / allowed if you have entered in section 5(b) that you intend to use simplified procedures to estimate fuel consumption.

- (a) Please specify the name or reference of the Commission approved tool used to estimate fuel consumption.

Please select

- (b) Please confirm that the following standard emission factors for commercial standard aviation fuels will be used to calculate emissions

| Type of aviation fuel | Default IPCC value (tCO2 / t) | Confirm |
|--------------------------------|-------------------------------|---------------|
| Jet kerosene (Jet A1 or Jet A) | 3,15 | Please select |
| Jet gasoline (Jet B) | 3,10 | Please select |
| Aviation gasoline (AvGas) | 3,10 | Please select |

- (c) If using an alternative fuel (including biofuel), please outline the proposed emission factor and net calorific value to be used and justify the methodology used.

[<<< Click here to proceed to section 11 "Management" >>>](#)

10 Data Gaps

Where data relevant for the determination of an aircraft operator's emissions is missing, the aircraft operator shall use surrogate data calculated in accordance with an alternative method approved by the competent authority. The reasons why the data gap methodology has been applied and the quantity of emissions for which such approach is used shall be specified in the annual emissions report.

- (a) Please provide a brief description of the method to be used to estimate fuel consumption when data is missing according to the conditions as outlined above.

- (b) Where surrogate data cannot be determined by the method described under 10(a), the emissions may be estimated from fuel consumption determined using a tool as specified in Article 54(2) of the MRR. Please specify the Commission approved tool used in this instance:

Please select

- (c) Please provide a short description of the methodology to treat data gaps regarding other parameters than fuel consumption, if applicable.

DESCRIPTION OF PROCEDURES FOR DATA MANAGEMENT AND CONTROL ACTIVITIES

11 Management

(a) Please identify the responsibilities for monitoring and reporting (Article 61 of the MRR)

Please identify the relevant job titles/posts and provide a succinct summary of their role relevant to monitoring and reporting. Only those with overall responsibility and other key roles should be listed below (i.e. do not include delegated responsibilities)

These could be outlined in a tree diagram or organisational chart attached to your submission

| Job title/post | Responsibilities |
|----------------|------------------|
| | |
| | |
| | |
| | |

(b) Please provide details about the procedure for managing the assignment of responsibilities and competences of personnel responsible for monitoring and reporting, in accordance with Article 58(3)(c) of the MRR.

This procedure should identify how the monitoring and reporting responsibilities for the roles identified above are assigned, how training and reviews are undertaken and how duties are segregated such that all relevant data is confirmed by a person not involved with the recording and collection of the data.

| | |
|---|--|
| Title of procedure | |
| Reference for procedure | |
| Brief description of procedure | |
| | |
| Post or department responsible for data maintenance | |
| Location where records are kept | |
| Name of system used (where applicable). | |

(c) Please provide details about the procedure for regular evaluation of the monitoring plan's appropriateness, covering in particular any potential measures for the improvement of the monitoring methodology.

This procedure must identify the process of regularly checking to ensure that the monitoring plan reflects the nature of the operation and that it conforms with the Monitoring and Reporting Regulation. The brief description should identify how regularly the plan is evaluated, dependent on the nature of the operation and how changes identified from internal reviews and verification visits are communicated to the Competent Authority.

| | |
|---|--|
| Title of procedure | |
| Reference for procedure | |
| Brief description of procedure | |
| | |
| Post or department responsible for data maintenance | |
| Location where records are kept | |
| Name of system used (where applicable). | |

12 Data Flow Activities

(a) Please provide details about the procedures of the data flow activities that ensure data reported under EU ETS does not contain misstatements and is in conformance with the approved plan and Regulation.

Where a number of procedures are used, please provide details of an overarching procedure which covers the main steps of data flow activities along with a diagram showing how the data management procedures link together (please reference this diagram below and include when submitting your monitoring plan). Alternatively please provide details of additional relevant procedures on a separate sheet.

Under "Description of the relevant processing steps", please identify each step in the data flow from primary data to annual emissions which reflect the sequence and interaction between data flow activities and include the formulas and data used to determine emissions from the primary data. Include details of any relevant electronic data processing and storage systems and other inputs (including manual inputs) and confirm how outputs of data flow activities are recorded.

| | |
|-------------------------|--|
| Title of procedure | |
| Reference for procedure | |

| | |
|---|--|
| <u>Diagram reference (where applicable)</u> | |
| <u>Brief description of procedure</u> | |
| <u>Post or department responsible for the procedure and for any data generated</u> | |
| <u>Location where records are kept</u> | |
| <u>Name of IT system used (where applicable).</u> | |
| <u>List of EN or other standards applied (where relevant)</u> | |
| <u>List of primary data sources</u> | |
| <u>Description of the relevant processing steps for each specific data flow activity.</u> | |

- (b) **Please attach a representation of the data flow for the calculation of emissions, including responsibility for retrieving and storing each type of data. If necessary, please refer to additional information, submitted with your completed plan.**

Please reference the file/document attached to your monitoring plan in the box below.

| |
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|--|

13 Control activities

- (a) **Please provide details about the procedures used to assess inherent risks and control risks.**

The brief description should identify how the assessments of inherent risks ("errors") and control risks ("slips") are undertaken when establishing an effective control system.

| | |
|--|--|
| <u>Title of procedure</u> | |
| <u>Reference for procedure</u> | |
| <u>Brief description of procedure</u> | |
| <u>Post or department responsible for data maintenance</u> | |
| <u>Location where records are kept</u> | |
| <u>Name of system used (where applicable).</u> | |

- (b) **Please provide details about the procedures used to ensure quality assurance of measuring equipment and information technology used for data flow activities.**

The brief description should identify how all relevant measurement equipment is calibrated or checked at regular intervals, if applicable, and how information technology is tested and controlled, including access control, back-up, recovery and security.

| | |
|--|--|
| <u>Title of procedure</u> | |
| <u>Reference for procedure</u> | |
| <u>Brief description of procedure</u> | |
| <u>Post or department responsible for data maintenance</u> | |
| <u>Location where records are kept</u> | |
| <u>Name of system used (where applicable).</u> | |

- (c) **Please provide details about the procedures used to ensure regular internal reviews and validation of data.**

The brief description should identify that the review and validation process includes a check on whether data is complete, comparisons with data over previous years, comparison of fuel consumption reported with purchase records and factors obtained for fuel suppliers with international reference factors, if applicable, and criteria for rejecting data.

| | |
|---|--|
| Title of procedure | |
| Reference for procedure | |
| Brief description of procedure | |
| Post or department responsible for data maintenance | |
| Location where records are kept | |
| Name of system used (where applicable). | |

(d) Please provide details about the procedures used to handle corrections and corrective actions.

The brief description should outline what appropriate actions are undertaken if data flow activities and control activities are found not to function effectively. The procedure should outline how the validity of the outputs is assessed, the process of determining the cause of the error and of correcting it

| | |
|---|--|
| Title of procedure | |
| Reference for procedure | |
| Brief description of procedure | |
| Post or department responsible for data maintenance | |
| Location where records are kept | |
| Name of system used (where applicable). | |

(e) If applicable, please provide details about the procedures used to control outsourced activities.

The brief description should identify how data flow activities and control activities of outsourced processes are checked and what checks are undertaken on the quality of the resulting data.

| | |
|---|--|
| Title of procedure | |
| Reference for procedure | |
| Brief description of procedure | |
| Post or department responsible for data maintenance | |
| Location where records are kept | |
| Name of system used (where applicable). | |

(f) Please provide details about the procedures used to manage record keeping and documentation.

The brief description should identify the process of document retention, specifically in relation to the data and information stipulated in Annex IX of the MRR and to how the data is stored such that information is made readily available upon request of the competent authority or verifier.

| | |
|---|--|
| Title of procedure | |
| Reference for procedure | |
| Brief description of procedure | |
| Post or department responsible for data maintenance | |
| Location where records are kept | |
| Name of system used (where applicable). | |

- (g) **Please provide the results of a risk assessment that demonstrates that the control activities and procedures are commensurate with the risks identified. (Note: Only applicable to operators who are not small emitters or small emitters who do not intend to use the small emitters tool)**

Please reference the file/document attached to your monitoring plan in the box below.

- (h) **Does your organisation have a documented environmental management system? Please choose the most relevant response.**

- (i) **If the Environmental Management System is certified by an accredited organisation and the system incorporates procedures relevant to EU ETS monitoring and reporting, please specify to which standard e.g. ISO14001, EMAS, etc.**

14 List of definitions and abbreviations used

- (a) **Please list any abbreviations, acronyms or definitions that you have used in completing this monitoring plan.**

| Abbreviation | Definition |
|--------------|------------|
| | |
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15 Additional information

- (a) **If you are providing any other information that you wish us to take into account in considering your plan, tell us here. Please provide this information in an electronic format wherever possible. You can provide information as Microsoft Word, Excel, or Adobe Acrobat formats.**

You are advised to avoid supplying non-relevant information as it can slow down the approval. Additional documentation provided should be clearly referenced, and the file name / reference number provided below. If needed, check with your competent authority if other file formats than the ones mentioned above are acceptable.

Please provide file name(s) (if in an electronic format) or document reference number(s) (if hard copy) below:

| File name/Reference | Document description |
|---------------------|----------------------|
| | |
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Member State specific further information

16 Comments

Space for further Comments:



Info for automatic Version detection

| | | |
|----------------|--|----------------------------------|
| Template type: | Phase 3 Monitoring Plan Aircraft operators | |
| Version: | 16/07/2012 | MP P3 Aircraft_COM_en_160712.xls |
| Issued by: | European Commission | |
| Language: | English | |

Type list:

| | |
|--|----------------|
| Monitoring plan tonne-kilometre data | MP TKM |
| Monitoring plan annual emissions | MP AEm |
| Report tonne-kilometre data | Report TKM |
| Report annual emissions | Report AEm |
| Phase 3 Installation Monitoring Plan | MP P3 Inst |
| Phase 3 Monitoring Plan Aircraft operators | MP P3 Aircraft |
| Phase 3 Monitoring Plan Aircraft t-km | MP P3 TKM |

| Version list | Reference File Name | Version comments |
|--------------|----------------------------------|--|
| 08/05/2009 | MP P3 Aircraft_COM_en_080509.xls | |
| 11/05/2009 | MP P3 Aircraft_COM_en_110509.xls | presented in WG3 |
| 19/05/2009 | MP P3 Aircraft_COM_en_190509.xls | draft published on Web |
| 11/06/2009 | MP P3 Aircraft_COM_en_110609.xls | corrected typo in 'Guidelines and conditio |
| ? | | Update by COM for EFTA countries |
| 15/02/2012 | | Update by Task force / UK |
| 14/05/2012 | MP P3 Aircraft_COM_en_140512.xls | First draft for third phase by UBA |
| 16/05/2012 | MP P3 Aircraft_COM_en_160512.xls | Translation version |
| 18/06/2012 | MP P3 Aircraft_COM_en_180612.xls | Corrected version (typos)... |
| 04/07/2012 | MP P3 Aircraft_COM_en_040712.xls | MS comments included, submitted to CCI |
| 08/07/2012 | MP P3 Aircraft_COM_en_080712.xls | One bug removed |
| 11/07/2012 | MP P3 Aircraft_COM_en_110712.xls | Version endorsed by CCC on 11 July |
| 16/07/2012 | MP P3 Aircraft_COM_en_160712.xls | OJ Reference added |
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Issued by:

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Languages list

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| Bulgarian | bg |
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