

EU Emissions Trading Scheme

Aircraft operator allocation by EC Member State

Process description

Edition Number	:	1.0
Edition Date	:	26 February 2009
Status	:	Released Issue
Intended for	:	European Commission




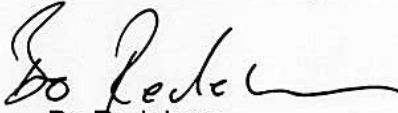
DOCUMENT CHARACTERISTICS

TITLE		
EU ETS - Aircraft operator allocation by EC Member State – Process Description		
Publications Reference:		n/a
ISBN Number:		n/a
Document Identifier	Edition Number:	1.0
n/a	Edition Date:	26 February 2009
Abstract		
<p>On 30 December 2008, the European Community and the European Organisation for the Safety of Air Navigation (“EUROCONTROL”) concluded a cooperation agreement for the provision of support by EUROCONTROL to the European Commission for the inclusion of aviation in the scheme for greenhouse gas emission allowances trading within the Community (European Union Emissions Trading Scheme, EU ETS).</p> <p>As part of this support, EUROCONTROL has produced specific data and analyses to assist the European Commission in determining which European Community (EC) Member State would administer which aircraft operator according to the Directive 2003/87/EC.</p> <p>The present report describes the process that has been used to determine this association.</p>		
Keywords		
EU ETS	Administering State	Aircraft Operator
2006 2007 2008	ANCAT	
Authors		
Nicolas de Brabanter, Stefano Mancini, Yves Meriadec		
Contact(s) Person	Tel	Unit
Stefano Mancini	+32 2 7293644	CND/CoE/ATM/ENV
Andrew Watt	+32 2 7295049	CND/CoE/ATM/ENV

STATUS, AUDIENCE AND ACCESSIBILITY					
Status	Intended for		Accessible via		
Working Draft	<input type="checkbox"/>	General Public	<input type="checkbox"/>	Intranet	<input type="checkbox"/>
Draft	<input type="checkbox"/>	EATM Stakeholders	<input type="checkbox"/>	Extranet	<input type="checkbox"/>
Proposed Issue	<input type="checkbox"/>	Restricted Audience	<input checked="" type="checkbox"/>	Internet (www.eurocontrol.int)	<input type="checkbox"/>
Released Issue	<input checked="" type="checkbox"/>				

DOCUMENT APPROVAL

The following table identifies all management authorities who have successively approved the present issue of this document.

AUTHORITY	NAME AND SIGNATURE	DATE
Lead Author	 Stefano Mancini	26/02/09
Reviewer	 Andrew Watt	26/02/09
Deputy Director CND/SESI	 Jean-Luc Garnier	05/03
Director CND	 Bo Redeborn	6/3/09

DOCUMENT CHANGE RECORD

The following table records the complete history of the successive editions of the present document.

EDITION NUMBER	EDITION DATE	REASON FOR CHANGE	PAGES AFFECTED
0.1	06/01/2009	Initial working draft	All
0.2	06/02/2009	Working draft	All
0.3	09/02/2009	Draft for review.	All
0.4	24/02/2009	Integration of comments from Environment Area Manager, Legal Service and DG ENV.	All
1.0	26/02/2009	First Edition: Released Issue	All

Contents

DOCUMENT CHARACTERISTICS.....	1
DOCUMENT APPROVAL.....	2
DOCUMENT CHANGE RECORD.....	3
CHAPTER 1 – PROCESS DESCRIPTION	6
1 Introduction	6
2 Flights Identification	7
2.1 Aerodrome Coverage.....	7
2.2 EUROCONTROL’s Central Route Charges Office (CRCO).....	8
2.3 Estonia	10
2.4 French Overseas Departments.....	10
2.5 Latvia	11
2.6 Lithuania	11
2.7 Poland.....	11
3 Exemptions based on criteria (a) to (h) of Annex I to the Directive.....	12
3.1 Exemption of flights sourced from the CRCO.....	12
3.2 Exemption of flights sourced from the Estonian and the CFMU information	14
4 Exemptions based on criteria (i) of Annex I to the Directive (Public Service Obligations).....	14
4.1 Identification of the Aircraft Operator of a Flight	14
4.2 Implementation of criteria (i) of Annex I to the Directive (public service obligations)	14
5 Exemption based on criteria (j) of Annex I to the Directive (“de-minimis”)	15
5.1 Commercial Air Transport Operator.....	15
5.2 Estimation of the CO ₂ emissions	15
5.3 Implementation of the criteria (j) of Annex I to the Directive (“de- minimis”)	16
6 Determination of the Administering EC Member State.....	16
6.1 State of the Operator	16
6.2 Operating Licence.....	17
6.3 Attribution of Aviation CO ₂ Estimated Emissions to EC Member States.....	17
6.4 Implementation of the Determination of the Administering EC Member State	18
7 Potential Inaccuracies.....	18
 Table 1 – Status, at the time of completing the aircraft operator vs. administering state association, of the identification of the flights to which the Directive applies.	 10

Table 2 – CRCO flight type information relevant for ETS purposes..... 12
Table 3 – Rules applied for the exemption of flights from the application of the Directive. 12
Table 4 – Inaccuracies sources of potential consequences..... 18

CHAPTER 1 – PROCESS DESCRIPTION

1 *Introduction*

On 19 November 2008 the European Parliament and the Council of the European Union adopted Directive 2008/101/EC amending Directive 2003/87/EC (hereafter referred to in its amended version as “the Directive”) so as to include aviation activities in the scheme for greenhouse gas emission allowances trading within the Community (European Union Emissions Trading Scheme, EU ETS).

On 30 December 2008, the European Community and the European Organisation for the Safety of Air Navigation (“EUROCONTROL”) concluded a cooperation agreement for the provision of support by EUROCONTROL to the European Commission for the inclusion of aviation in the EU ETS.

As part of this support, EUROCONTROL has produced specific data and analyses to assist the European Commission in determining which European Community (EC) Member State would administer which aircraft operator according to the Directive.

The present report describes the process that has been used to determine this association, namely:

- identification of the flights to which the Directive applies based on the situation of the aerodromes of departure and arrival and notwithstanding the exemption criteria laid down by Annex I to the Directive (see section 2);
- identification of the flights which are still covered by the Directive once the exemption criteria laid down in points (a) to (h) of Annex I to the Directive have been applied (see section 3);
- identification of the aircraft operator and, thereafter, of the flights which are still covered by the Directive once the exemption criteria laid down in point (i) of Annex I to the Directive (public service obligations) have been applied (see section 4);
- identification of commercial air transport operators, estimation of their CO₂ emissions and number of flights, and identification of the flights which are still covered by the Directive once the exemption criteria laid down in point (j) of Annex I to the Directive (de-minimis) have been applied (see section 5);

- identification of the administering EC Member State for all aircraft operators having their base year in 2006, 2007 or 2008 and that for any of those years has at least 1 flight covered by the Directive once all the exemption criteria (a) to (j) of Annex I to the Directive have been applied (see section 6).
- a decision-support tool capable of addressing the environmental impact, in terms of fuel burn and related emissions, of air transport policies and operational measures at a macro-level can be developed;

This is complemented by a summary of the potential inaccuracies in the determination of which EC Member State would administer which aircraft operator, and of the related causes, in section 7.

Based on this process, the report to the European Commission includes a list indicating which EC Member State would administer which aircraft operator. For each EC Member State, the list identifies which are the aircraft operators that the State would administer under the EU ETS, including the State of the Operator (see section 6.1).

2 *Flights Identification*

Fundamental in determining the allocation of aircraft operators by EC Member State is the correct identification of all the flights that could be covered by the Directive notwithstanding the exemption criteria of Annex I to the Directive.

Not only is it vital that the source of the flight information is comprehensive, it is also very important that this source:

- has been checked;
- allows the identification of the aerodrome of departure and arrival of each flight;
- allows the identification of which of the exemption criteria laid down in points (a) to (j) of Annex I to the Directive are applicable for each flight;
- allows the identification of the aircraft operator of each flight, for the purpose of identifying the “aircraft operator” to which the CO₂ emissions are to be attributed under the ETS;
- allows the identification of whether or not an aircraft operator is a commercial air transport operator, as defined in Article 3 of the Directive, for the purpose of applying the exemption criteria of point (j) of Annex I to the Directive;
- allows the identification of whether or not an aircraft operator holds an operating licence, according to Regulation (EC) No 1008/2008 of 24 September 2008 on common rules for the operation of air services in the Community (Recast)¹, for the purpose of determining its administering EC Member State pursuant to Article 18a(1)(a) of the Directive.

2.1 **Aerodrome Coverage**

According to Annex I to the Directive and notwithstanding the exemption criteria defined therein, the Directive applies to all “*flights which depart from or arrive in an aerodrome situated in the territory of a Member State to which the (EC) Treaty applies*”. Thus, for intra-Community flights where the departure or destination of a flight is a specific aerodrome situated in the Community territory, the Directive will normally apply. The Community territory primarily includes the territories of its Member States, the European Union ultra-peripheral regions and the French overseas departments.

¹ OJ L 293, 31.10.2008, p. 3. The Regulation expressly repeals the provisions of Council Regulation (EEC) No 2407/92 of 23 July 1992 on licensing of air carriers, OJ L 240, 24.8.1992, p. 1. References to the latter Regulation must be construed as references to the former.

The complete list of Community aerodromes is not provided in this report. However, pursuant to Article 299 of the EC Treaty:

- flights operated to or from aerodromes situated in the following territories are covered by the Directive:

Territory	EC Member State
ÅLAND (island)	FINLAND
FRENCH GUIANA (overseas department)	FRANCE
GUADELOUPE (overseas department)	FRANCE
MARTINIQUE (overseas department)	FRANCE
RÉUNION (overseas department)	FRANCE
CANARY ISLANDS	SPAIN
CEUTA (autonomous city)	SPAIN
MELILLA (autonomous city)	SPAIN
MADEIRA	PORTUGAL
AZORES	PORTUGAL
GIBRALTAR (autonomous territory)	UNITED KINGDOM

- flights operated to or from an aerodrome situated in one of the following countries or territories and that have not flown, respectively, from or to an aerodrome situated in the Community territory are not covered by the Directive:
 - Andorra (aerodrome ICAO designator XALV);
 - the Crown Dependencies, possessions of The Crown in Right of the United Kingdom, namely:
 - the Channel Islands of the Bailiwicks of Jersey (aerodrome ICAO designator EGJJ);
 - the Channel Islands of the Bailiwicks of Guernsey (aerodrome ICAO designators EGJB and EGJA);
 - the Isle of Man (aerodrome ICAO designator EGNS);
 - Faeroe Islands (aerodrome ICAO designator EKVG);
 - Liechtenstein (aerodrome ICAO designator LSXB);
 - Monaco (aerodrome ICAO designator LNMC);
 - San Marino (no aerodrome identified);
 - the State of the Vatican City (no aerodrome identified).

2.2 EUROCONTROL's Central Route Charges Office (CRCO)

Since November 1971, EUROCONTROL has operated the CRCO, billing and collecting route charges for any flight performed at least in part under Instrument Flight Rules (IFR) within the airspace of the States that have signed the *Multilateral Agreement relating to*

*Route Charges*² (hereafter referred to as the EUROCONTROL Contracting States) and that have been technically integrated in the CRCO system.

Considering:

- the commonalities between the *Conditions of Application of the Route Charges System and Conditions of Payment*³ (hereafter referred to as the CRCO Conditions) and the Directive as far as the identification of the operator of a flight and the exemption criteria are concerned;
- the significant overlap between the territorial area of application of the Directive and the area for which the CRCO is billing and collecting route charges;
- CRCO's excellent application of the CRCO Conditions and track record of the recovery rate of route charges (in 2007, 99% within 30 days after the due date, 99.75% within 1 year after the due date); and
- that final settlement (payment) by an aircraft operator of the route charges billed by the CRCO shows that the operator accepts the existence of the flight being charged and the legal correctness of the applicable route charges' data, namely the:
 - identity of the operator
 - aircraft type
 - average maximum take-off weight per aircraft type per operator
 - departure and arrival aerodrome
 - date of operation;
 - applicability of relevant exemption criteria;

therefore, the route charges information available at EUROCONTROL's CRCO has served as the principal source of data to identify the flights to which the Directive applies and the aircraft operator of such flights.

For the years 2006 to 2008 that were to be analysed in accordance with Article 18a(3) of the Directive, the CRCO information covers all flights which departed from or arrived in an aerodrome situated in the majority of the territories of a State to which the EC Treaty applies.

CRCO flight information does not however cover all flights that have departed or arrived in an aerodrome situated in the following countries or territories:

- Estonia;
- the French overseas departments (French Guiana, Guadeloupe, Martinique, Réunion);
- Latvia;
- Lithuania (except 2008);
- Poland (except 2008).

Table 1 summarises the status, at the time of completing the aircraft operator vs. administering state association, of the identification of the flights to which the Directive applies. Further explanation is provided in the following sections.

² See http://www.eurocontrol.int/crco/gallery/content/public/docs/other/multilateral_agreement_en.pdf.

³ See http://www.eurocontrol.int/crco/gallery/content/public/docs/circulars/cond_app_doc_07_60_02_en_oct2007.pdf.

Table 1 – Status, at the time of completing the aircraft operator vs. administering state association, of the identification of the flights to which the Directive applies.

State/Territory of Departure or Arrival	Status
Estonia	CRCO data complemented with information made available from Estonian authorities (up to 30 November 2008)
French overseas departments (French Guiana, Guadeloupe, Martinique, Réunion)	For 2006, 2007 and 2008, information is available from the CRCO only for flights to/from the French overseas departments that have operated in the CRCO area.
Latvia	For 2006, 2007 and 2008, information is available from the CRCO only for flights to/from Latvia that have operated in the CRCO area.
Lithuania	For 2006 and 2007, information is available from the CRCO only for flights to/from Lithuania that have operated in the CRCO area.
Poland	For 2006 and 2007, the CRCO data has been complemented with information taken from EUROCONTROL's Central Flow Management Unit (CFMU).
All other States or territories	CRCO data.

2.3 Estonia

Estonia is not a EUROCONTROL Contracting State. The CRCO thus holds information only for those flights that have departed from or arrived in an aerodrome in Estonia and have flown through the airspace of at least one of the EUROCONTROL Contracting States.

The Estonian authorities have kindly provided to EUROCONTROL air traffic information for the period concerned (up to 30 November 2008 at the time of completing the aircraft operator vs. administering state association) for all flights that have operated in the Estonian airspace.

The information provided by the Estonian authorities has been used to complement the CRCO flight data for flights that have departed from or arrived in an aerodrome located in Estonia for 2006, 2007 and 2008.

2.4 French Overseas Departments

The Directive applies to all flights departing from or arriving at an aerodrome situated in any of the French overseas departments, i.e. French Guiana, Guadeloupe, Martinique, and Réunion.

Whereas France is a EUROCONTROL Contracting State, CRCO's billing and charging covers only flights which have operated in the French mainland airspace. The CRCO thus holds information only for those flights that have departed from or arrived at an aerodrome in the French overseas departments as long as such flights have flown through the airspace of at least one of the EUROCONTROL Contracting States (e.g. flights between Belgium and any of the French overseas departments).

Information on all other flights is not presently available, e.g. flights operated within these departments or flights between the Americas and Guadeloupe or Martinique. Information for these flights has been requested from the French authorities to complement the CRCO available information.

This information has been received in the mean time by EUROCONTROL and it is being processed in order to identify possible impacts on the aircraft operator vs. administering state association.

2.5 Latvia

Latvia is not a EUROCONTROL Contracting State. The CRCO thus holds information only for those flights that have departed from or arrived at an aerodrome situated in Latvia and that have flown through the airspace of at least one of the EUROCONTROL Contracting States.

Domestic flights in Latvia as well as flights departed from or arrived at an aerodrome situated in Latvia and that have not flown through the airspace of at least one of the EUROCONTROL Contracting States (e.g. flights from Riga to Moscow) have thus not been covered. Information for these flights has been requested from the Latvian authorities to complement the CRCO available information.

At the time of completing the aircraft operator vs. administering state association, this additional information was not made available to EUROCONTROL.

2.6 Lithuania

Lithuania became a EUROCONTROL Contracting State on 1 September 2006 and has been technically integrated in the CRCO system as from 1 January 2008.

For 2006 and 2007, the CRCO thus holds information only for those flights that have departed from or arrived at an aerodrome situated in Lithuania and that have flown through the airspace of at least one of the EUROCONTROL Contracting States.

Domestic flights in Lithuania as well as flights departed from or arrived at an aerodrome situated in Lithuania and that have not flown through the airspace of at least one of the EUROCONTROL Contracting States (e.g. flights from Vilnius to Moscow) have thus not been covered. Information for these flights has been requested from the Lithuanian authorities to complement the CRCO available information.

At the time of completing the aircraft operator vs. administering state association, this additional information was not made available to EUROCONTROL.

2.7 Poland

Poland became a EUROCONTROL Contracting State on 1 September 2004 and has been technically integrated in the CRCO system as from 1 January 2008.

For 2006 and 2007, the CRCO thus holds information only for those flights that have departed from or arrived at an aerodrome situated in Poland and that have flown through the airspace of at least one of the EUROCONTROL Contracting States.

Information for 2006 and 2007 on domestic flights in Poland as well as flights departed from or arrived at an aerodrome situated in Poland and that have not flown through the airspace of at least one of the EUROCONTROL Contracting States (e.g. flights from Warsaw to Moscow) is thus not available to the CRCO.

2.7.1 EUROCONTROL's Central Flow Management Unit (CFMU)

Through the CFMU, EUROCONTROL has been providing prior to 1 January 2004 some air traffic flow management functions for all flights operating in the Polish airspace. In particular, the CFMU has received a flight plan for all flights operated at least in part under IFR rules in Polish airspace.

These flight plans, which contain information relevant for performing the aircraft operator vs. administering state association, have been used to complement the CRCO flight data for flights that have departed from or arrived at an aerodrome situated in Poland for the years 2006 and 2007.

3 Exemptions based on criteria (a) to (h) of Annex I to the Directive

Of the flights identified as explained in section 2, some are exempted from the application of the Directive when any of the criteria for exemption listed in Annex I to the Directive is met.

The identification of which flights can be exempted according to the criteria laid down in points (a) to (h) of Annex I to the Directive depends on the source from which the flight has been initially identified in accordance with the process defined in section 2.

3.1 Exemption of flights sourced from the CRCO

The CRCO does not have any exemption criteria specific to the purpose of the ETS. The commonalities between the exemption criteria stated in the CRCO Conditions (see Table 2 for an overview) and those of Annex I to the Directive allow however to exploit the flight type information associated to each CRCO flight for the purpose of applying the exemptions based on criteria (a) to (h) of Annex I to the Directive.

Table 2 – CRCO flight type information relevant for ETS purposes.

CRCO Flight Type	Description
0	Circular flight
T	Training flight
M	Military flight operated by an aircraft operator of a EUROCONTROL Contracting State
X	Military flight operated by an aircraft operator of a non-EUROCONTROL Contracting State
S	State flight
R	Search and rescue flight
E and N	Test flight
V	Flight performed exclusively under visual flight (VFR) rules
P	Customs and police flight
H	Humanitarian flight

Table 3 lists the rules that have been applied by analogy to the ETS to identify which flights are exempted from the application of the Directive.

Table 3 – Rules applied for the exemption of flights from the application of the Directive.

Directive text (Annex I)	Corresponding CRCO exemption
(a) flights performed exclusively for the transport, on official mission, of a reigning Monarch and his immediate family, Heads of State, Heads of Government and Government Ministers, of a country other than a Member State, where this is substantiated by an appropriate status indicator in the flight plan;	Information on the nationality of the transported authority not being available, flights have been exempted in the analysis where: <ul style="list-style-type: none"> • the CRCO exemption code = 'S'; and • the State of the Operator (see section 6.1) is not an EC Member State.

Directive text (Annex I)	Corresponding CRCO exemption
(b) military flights performed by military aircraft and customs and police flights;	Flights have been exempted in the analysis where: <ul style="list-style-type: none"> the CRCO exemption code = 'M', 'X' or 'P'
(c) flights related to search and rescue, fire-fighting flights, humanitarian flights and emergency medical service flights authorised by the appropriate competent authority;	Flights have been exempted in the analysis where: <ul style="list-style-type: none"> the CRCO exemption code = 'H'; or 'R' <p>Note: information on emergency medical service flights is not available in the CRCO. Identification of these flights for their exemption is not yet possible.</p> <p>Note: fire-fighting flights are usually exempted because they are VFR flights or, sometimes, identified as search and rescue flights.</p>
(d) any flights performed exclusively under visual flight rules as defined in Annex 2 to the Chicago Convention;	Flights have been exempted in the analysis where: <ul style="list-style-type: none"> the CRCO exemption code = 'V'
(e) flights terminating at the aerodrome from which the aircraft has taken off and during which no intermediate landing has been made;	Flights have been exempted in the analysis where: <ul style="list-style-type: none"> the CRCO exemption code = 'O'
(f) training flights performed exclusively for the purpose of obtaining a licence, or a rating in the case of cockpit flight crew where this is substantiated by an appropriate remark in the flight plan provided that the flight does not serve for the transport of passengers and/or cargo or for the positioning or ferrying of the aircraft;	Flights have been exempted in the analysis where: <ul style="list-style-type: none"> the CRCO exemption code = 'T'
(g) flights performed exclusively for the purpose of scientific research or for the purpose of checking, testing or certifying aircraft or equipment whether airborne or ground-based;	Flights have been exempted in the analysis where: <ul style="list-style-type: none"> the CRCO exemption code = 'E' or 'N' <p>Note: information on flights performed exclusively for the purpose of scientific research is not available in the CRCO. Identification of these flights for their exemption is not yet possible.</p>
(h) flights performed by aircraft with a certified maximum take-off mass of less than 5 700 kg;	Flights have been exempted in the analysis where the maximum take-off weight referred to in Article 6 para 1 of the CRCO Conditions for a flight is < 5.7 tonnes.

3.2 Exemption of flights sourced from the Estonian and the CFMU information

The information available for the flights sourced from the CFMU and from the data made available by Estonia (see Table 1) does not provide sufficient information to determine which flights can be exempted based on the criteria (a) to (h) of Annex I to the Directive.

Nevertheless, flights have been flagged as exempted flights when:

- the aerodrome of departure coincided with the aerodrome of arrival (criteria (e));
- the operator is known to be an operator performing only military, customs or police flights (criteria (c)).

4 Exemptions based on criteria (i) of Annex I to the Directive (Public Service Obligations)

The exemption of flights based on criteria (i) of Annex I to the Directive requires the identification of the aircraft operator.

4.1 Identification of the Aircraft Operator of a Flight

Considering that:

- according to Article 3, point (o) of the Directive, the “*aircraft operator means the person who operates an aircraft at the time it performs an aviation activity listed in Annex I or, where that person is not known or is not identified by the owner of the aircraft, the owner of the aircraft*”;
- similarly, Article 1, para 5 of the CRCO Conditions states that “*the person liable to pay the charge shall be the person who was the operator of the aircraft at the time when the flight was performed. If the identity of the operator is not known, the owner of the aircraft shall be regarded as the operator unless he proves which other person was the operator*”;
- para 15 of the preamble of the Directive 2008/101/EC states *inter alia* that “*An aircraft operator may be identified by the use of an ICAO designator or any other recognised designator used in the identification of the flight. If the identity of the aircraft operator is not known, the owner of the aircraft should be regarded as the aircraft operator unless it proves which other person was the aircraft operator*”;
- the identification of the operator of a flight for route charging purposes is based on the information contained in field 7 of the flight plan, which contains either the ICAO designator of an aircraft operator or the registration marking of the aircraft;

therefore, the aircraft operator of a flight covered by the Directive may be identified as the aircraft operator billed by the CRCO for the route charges related to such flight.

4.2 Implementation of criteria (i) of Annex I to the Directive (public service obligations)

Considering that:

- at the time of determining which EC Member State would administer which aircraft operator, a complete, verified and up-to-date database of the which routes are covered by a public service obligation imposed in accordance with the Council Regulation (EEC) No 2408/92 of 23 July 1992 on access for Community air carriers to intra-Community air routes was not available; and

as a result, the exemption of flights performed in the framework of public service obligations imposed in accordance with the Council Regulation (EEC) No 2408/92 on routes within

outermost regions as specified in Article 299(2) of the EC Treaty or on routes where the capacity offered does not exceed 30,000 seats per year has not been applied.

5 Exemption based on criteria (j) of Annex I to the Directive (“de-minimis”)

The application of the exemption of flights based on the criteria laid down in point (j) to Annex I to the Directive is made on the following grounds:

- the analysis of the exemption in accordance with the “de-minimis criteria” is based on the set of flights that have not already been exempted under any of the criteria under points (a) to (i);
- the “de-minimis criteria” is applicable exclusively to commercial air transport operators (see section 5.1);
- the applicability of the “de-minimis exemption” is based on the number of flights and volume of CO₂ emissions of a group of flights operated by a specific aircraft operator (whereas the previous exemption criteria (a) to (i) were instead linked to the nature and characteristics of a single flight).

5.1 Commercial Air Transport Operator

According to Article 3, point (p) of the Directive, commercial air transport operator means “*an operator that, for remuneration, provides scheduled or non-scheduled air transport services to the public for the carriage of passengers, freight or mail*”.

Considering that:

- at the time of determining which EC Member State should administer which aircraft operator, a complete, verified and up-to-date database of which aircraft operator complies with the above definition was not available;
- for some operators, the CRCO holds information on whether or not their Air Operator’s Certificate (AOC) states that it is a commercial operator;

therefore, an aircraft operator covered by the Directive has been deemed to be a commercial air transport operator in the sense of Article 3, point (p) of the Directive if such an aircraft operator is identified as a commercial operator on the bases of its AOC.

5.2 Estimation of the CO₂ emissions

The estimation of the CO₂ emissions associated to each flight has been calculated using the ANCAT method number three, as recommended by the European Civil Aviation Conference (ECAC) in its recommendation 27/3 on 8 July 2003⁴.

The ANCAT methodology has been expanded by EUROCONTROL to cater for the wider range of aircraft types that fly in European airspace. The route length used for the estimation of the CO₂ emissions is determined on the bases of the route flown by an aircraft. This is the route defined in the flight plan available at the CFMU, updated with actual surveillance data i.e. radar derived data provided by the air navigation service providers and position report data provided by the aircraft operators.

The ANCAT methodology does not allow to cater for the usage of the Auxiliary Power Unit (APU) or for other factors that influence fuel consumption, e.g. meteorological conditions, actual taxi times, holdings, or actual take-off weight.

⁴ Recommendation available at www.ecac-ceac.org.

5.3 Implementation of the criteria (j) of Annex I to the Directive (“de-minimis”)

For a given calendar year, all flights operated by an aircraft operator have been exempted where:

- the aircraft operator is identified as a commercial air transport operator (see section 5.1); **and**
- for such aircraft operator, the set of flights that have not been exempted under any of the criteria laid down in points (a) to (i), are such that:
 - the total annual emissions of these flights is lower than 10,000 tonnes (see section 5.2); **or**
 - fewer than 243 of these flights were performed by the aircraft operator in any of the following periods of the same calendar year:
 - 1 January to 30 April;
 - 1 May to 31 August;
 - 1 September to 31 December.

6 Determination of the Administering EC Member State

The administering EC Member State has been determined for those aircraft operators having as base year 2006, 2007 or 2008 and that for any of those years have at least 1 flight covered by the Directive after all the exemption criteria (a) to (j) of Annex I to the Directive have been applied.

According to Article 18a of the Directive, the administering EC Member State of an aircraft operator is determined considering:

- whether the aircraft operator has been granted an operating licence by an EC Member State in accordance with the provisions of Regulation (EC) No 1008/2008; or
- which is the EC Member State that has the greatest estimated attributed aviation emissions from flights performed by that aircraft operator in the base year.

6.1 State of the Operator

Considering that:

- ICAO defines the State of Registry as "*the State on whose register the aircraft is entered*";
- Annex 8 to the ICAO Convention further clarifies that the State of Registry "*is in charge of the issuance or validation of Certificates of Airworthiness by virtue of Article 31 of the Convention*";
- although not defined, Annex 8 to the ICAO Convention also refers to the State of the Operator as follows (introductory note to Part II of Annex 8):

Although the Convention on International Civil Aviation allocates to the State of Registry certain functions which that State is entitled to discharge, or obligated to discharge, as the case may be, the Assembly recognized, in Resolution A23-13, that the State of Registry may be unable to fulfil its responsibilities adequately in instances where aircraft are leased, chartered or interchanged — in particular without crew — by an operator of another State and that the Convention may not adequately specify the rights and obligations of the State of an Operator in such instances until such time as Article 83 bis of the Convention enters into force (note, it entered into force on 20 June

1997). Accordingly, the Council urged that if, in the above-mentioned instances, the State of Registry finds itself unable to discharge adequately the functions allocated to it by the Convention, it delegate to the State of the Operator, subject to acceptance by the latter State, those functions of the State of Registry that can more adequately be discharged by the State of the Operator...

- the administrating state vs. aircraft operator list contains aircraft operators and not aircraft;

as a result, the State of the Operator has been used for each aircraft operator. The State of the Operator is the State that has granted the AOC to an aircraft operator, when available at the CRCO (see section 5.1).

6.2 Operating Licence

According to Article 10(3) of Regulation (EC) No 1008/2008, which replaces Article 13(4) of the Council Regulation (EEC) No 2407/92, “A list of decisions of the competent licensing authorities to grant, suspend or revoke operating licences shall be published annually in the Official Journal of the European Union”.

Considering that:

- at the time of determining which EC Member State should administer each aircraft operator, a complete and up-to-date database of which aircraft operator has been granted such an operating licence under Council Regulation (EEC) No 2407/92 was not available;
- the CRCO holds information on whether or not the Air Operator’s Certificate (AOC) of an aircraft operator states that it is a commercial operator (see section 5.1);
- Article 2(1) of the Regulation (EC) No 1008/2008 states that an operating licence is “an authorisation granted by the competent licensing authority to an undertaking, permitting it to provide air services as stated in the operating licence”;
- Paragraph 4 of the recital to Regulation (EC) No 1008/2008 states that “the same Member State should be responsible for the oversight of the air operator certificate and of the operating licence”;

therefore, an aircraft operator was deemed to hold an operating licence granted by an EC Member State when:

- the State of the Operator is an EC Member State; **and**
- at the CRCO such aircraft operator is identified to be a commercial operator based on its AOC, i.e. when the aircraft operator is deemed to be a commercial air transport operator (see section 5.1).

6.3 Attribution of Aviation CO₂ Estimated Emissions to EC Member States

Starting from the base year, for which at least 1 flight has been covered by the Directive once all the exemption criteria (a) to (j) of Annex I to the Directive have been applied, the estimated CO₂ emissions (see section 5.2) of all flights operated by an aircraft operator in that year are attributed to the EC Member States as follows:

- for flights departing from an aerodrome not situated in the territory of a Member State to which the (EC) Treaty applies (see section 2.1), to the EC Member State in whose territory is situated the airport of arrival;
- for flights arriving in an aerodrome not situated in the territory of a Member State to which the (EC) Treaty applies (see section 2.1), to the EC Member State in whose territory is situated the airport of departure;

- for intra-Community flights, half to the EC Member State in whose territory is situated the aerodrome of departure and half to the EC Member State in whose territory is situated the aerodrome of arrival.

6.4 Implementation of the Determination of the Administering EC Member State

The administering EC Member State of an aircraft operator having in any of the years 2006, 2007 or 2008 at least 1 flight covered by the Directive once all exemption criteria (a) to (j) of Annex I to the Directive have been applied, has been identified to be:

- the present State of the Operator, if the operator has an operating licence (see section 6.2), i.e. if:
 - the State of the Operator is an EC Member State; **and**
 - at the CRCO such aircraft operator is identified to be a commercial operator based on its AOC, i.e. when the aircraft operator is deemed to be a commercial air transport operator (see section 5.1).
- the EC Member State to which has been attributed most of the aircraft operator CO₂ estimated emissions (see section 6.3) in the base year of that operator in all other cases.

7 Potential Inaccuracies

Table 4 provides a summary of the potential inaccuracies in the determination of which EC Member State would administer an aircraft operator, and the related consequences.

Table 4 – Inaccuracies sources of potential consequences

Inaccuracy causes	Potential consequences
Incomplete traffic (see section 2 and Table 1) for: <ul style="list-style-type: none"> • Estonia (December 2008) • French overseas departments (2006->2008) • Latvia (2006->2008) • Lithuania (2006->2007) • Poland (2006->2007) 	Some aircraft operators: <ul style="list-style-type: none"> • to whom the Directive should apply might not have been identified nor associated to an administering EC Member State; or • should have been associated to another administering EC Member State.
Insufficient information for flights not sourced from the CRCO for: <ul style="list-style-type: none"> • Estonia (2006->November 2008, see section 2.3 and 3.2) • Poland (2006->2007, see section 2.7 and 3.2) 	Some flights: <ul style="list-style-type: none"> • should have been exempted as they actually met at least one of the exemption criteria. Consequently, some aircraft operators: <ul style="list-style-type: none"> • might have had no flight covered by the Directive, and were thus to be exempted and not associated to any administering EC Member State; or • should have been associated to another administering EC Member State.

Inaccuracy causes	Potential consequences
<p>Exemptions based on criteria (a) (see section 3.1). Information on the nationality of the transported authority is not available. Flights have been exempted only if they were a State flight and the State of the Operator (see section 6.1) was not an EC Member State.</p>	<p>Some State flights:</p> <ul style="list-style-type: none"> • should have been exempted as they did not transport an authority of an EC Member State; or • should not have been exempted as they transported an authority of an EC Member State. <p>Consequently, some aircraft operators:</p> <ul style="list-style-type: none"> • might have had no flight covered by the Directive, and were thus to be exempted and not associated to any administering EC Member State; or • to whom the Directive should apply might not have been identified nor associated to an administering EC Member State; or • should have been associated to another administering EC Member State.
<p>Exemptions based on (see section 3.1):</p> <ul style="list-style-type: none"> • criteria (c), information on emergency medical service flights is not available in the CRCO; or • criteria (g), information on flights performed exclusively for the purpose of scientific research is not available in the CRCO 	<p>Some flights:</p> <ul style="list-style-type: none"> • should have been exempted as they actually met one of these two criteria. <p>Consequently, some aircraft operators:</p> <ul style="list-style-type: none"> • might have had no flight covered by the Directive, and were thus to be exempted and not associated to any administering EC Member State; or • should have been associated to another administering EC Member State.
<p>Exemptions based on criteria (i), public service obligations, have not been applied (see section 4.2)</p>	<p>Some flights:</p> <ul style="list-style-type: none"> • should have been exempted as they actually met the criteria. <p>Consequently, some aircraft operators:</p> <ul style="list-style-type: none"> • might have had no flight covered by the Directive, and were thus to be exempted and not associated to any administering EC Member State; or • should have been associated to another administering EC Member State.
<p>Exemptions based on criteria (j), de-minimis. The information of which aircraft operator is a commercial air transport operator is available only for some operators (see section 5.1)</p>	<p>Some flights:</p> <ul style="list-style-type: none"> • should have been exempted as they actually met the criteria. <p>Consequently, some aircraft operators:</p> <ul style="list-style-type: none"> • might have had no flight covered by the Directive, and were thus to be exempted and not associated to any administering EC Member State; or • should have been associated to another administering EC Member State.

Inaccuracy causes	Potential consequences
<p>Exemptions based on criteria (j), de-minimis. State flights transporting an authority of an EC Member State should not have been excluded when the traffic or emissions exempting conditions of criteria (j) were met (see section 5.3).</p>	<p>Some flights:</p> <ul style="list-style-type: none"> • should not have been exempted. <p>Consequently, some commercial air transport operators:</p> <ul style="list-style-type: none"> • might still have had at least 1 flight covered by the Directive, and were thus to be associated to an administering EC Member State.
<p>Operating Licence (see section 6.2)</p>	<p>Some aircraft operators:</p> <ul style="list-style-type: none"> • should have been associated to another administering EC Member State