



aviation in the EU Emission Trading Scheme (ETS)

short guide for operators



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On 20th December 2006, the European Union Commission adopted a proposal for legislation to include aviation in the EU Emissions Trading Scheme (ETS). On 8th July 2008, the European Parliament approved amendments on that proposal. On 24th October 2008, the text was finally approved by the Council. The final text was published in the Official Journal of the European Union (OJ) on 13th January 2009, entering into force the 2nd February 2009. Member States has to incorporate the disposition to their national legislation by 2nd of February 2010.

What does emission trading scheme mean for aviation?

From 2012 onwards, airlines operating in EU are required to buy and can sell allowances to release carbon dioxide into the atmosphere. The Member State responsible define an emission cap for each individual operator who had applied for it, following a benchmark fixed by the Euroepan Comission. That benchmark depend on the travelled tonne-km during 2010.

Operators exceeding their quotas are allowed to buy unused credits from those doing better at cutting their emissions, helping to reach the EU targets under the Kyoto Protocol.

The cap-and-trade system is a market mechanism for cutting emissions. The cap limitis the total amount of emissions and the trade economically incentive the “greener” and penalice the polluters.

How are the emissions calculated and monitored?

Emissions shall be monitored by calculation, for each flight and for each fuel, using the formula: ***fuel consumption x emission factor.***

If actual fuel consumption data are not available, a standardised tiered method shall be used to estimate fuel consumption data based on best available information.

Default IPCC emission factors, taken from the 2006 IPCC Inventory Guidelines or subsequent updates of these Guidelines, shall be used unless activity-specific emission factors identified by independent accredited laboratories using accepted analytical methods are more accurate. The emission factor for biomass shall be zero.



From **1 January 2010** each aircraft operator shall report the emissions during each calendar year from the aircraft which it operates to the competent authority after the end of that year.

Who is affected?

Aircraft operators (lights departing from and/or arriving in an aerodrome situated in the European Union, whatever their nationality.

Are excluded:

- (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;
- (b) military flights performed by military aircraft and customs and police flights;
- (c) flights related to **search and rescue, fire-fighting flights, humanitarian flights** and **emergency medical service flights** authorised by the appropriate competent authority;
- (d) any flights performed exclusively under **visual flight rules** as defined in Annex 2 to the Chicago Convention;
- (e) flights terminating at the aerodrome from which the aircraft has taken off and during which no intermediate landing has been made;
- (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;
- (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;
- (h) flights performed by aircraft with a certified **maximum take-off mass of less than 5 700 kg**;
- (i) flights performed in the framework of public service obligations imposed in accordance with Regulation (EEC) No 2408/92 on routes within **outermost regions** as specified in Article 299(2) of the Treaty, or on **routes** where the



capacity offered does **not exceed 30 000 seats per year**; and

- (j) flights which, but for this point, would fall within this activity, performed by a commercial air transport operator operating either
 - a. **fewer than 243 flights** per period for three consecutive four-month periods; or
 - b. flights with total annual **emissions lower than 10 000 tonnes per year**.

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 an EU Member State may not be excluded under this point.

Which is the administering Member State?

- a) in the case of an aircraft operator with a valid EU operating licence, the Member State which granted the operating licence in respect of that aircraft operator; and
- b) in all other cases, the Member State with the greatest estimated attributed aviation emissions from flights performed by that aircraft operator in the base year (in relation to an aircraft operator which started operating in the Community after 1 January 2006, the first calendar year of operation, and in all other cases, the calendar year starting on 1 January 2006).



How will allowances be allocated to affected operators?

For each period, each **aircraft operator** may apply for an allocation of allowances that are to be allocated free of charge. An application may be made by submitting to the competent authority in the **administering Member State** verified **tonne-kilometre data** for the aviation activities performed by that aircraft operator for the **monitoring year (2010)**.

According to these applications, the Commission shall calculate and adopt a decision setting out:

- a) the **total** quantity of allowances to be allocated for that period

- For the 2012 period, the total quantity of allowances to be allocated to aircraft operators shall be equivalent to **97%** of the historical **aviation emissions** (mean **average of the annual emissions** in the calendar years **2004, 2005** and **2006**).
 - For the period beginning on 1 January 2013, and, in the absence of any amendments, for each subsequent period, the total quantity of allowances to be allocated to aircraft operators shall be equivalent to **95%** of the historical aviation emissions multiplied by the number of years in the period. *This percentage may be reviewed as part of a general review of this Directive*
 - **By 2 de agosto de 2009**, the Commission shall decide on the historical aviation emissions, based on best available data, including estimates based on actual traffic information.
- b) the number of allowances to be **auctioned** in that period (*min 15 % of total*)
- c) the number of allowances in the **special reserve** for aircraft operators in that period (*3 % of total*) That allowances are reserved to be allocated free of charge to new aircraft operators starting the activity after the **reference year** or to current ones which growing from that year has been higher than **18 %**. Not allocated allowances from this reserve shall be auctioned.
- d) the number of allowances to be allocated **free of charge** in that period shall be calculated by subtracting the number of auctioned allowances (b) and the reserve (c) from the total quantity of allowances (a); [d= a – (b+c)]
- e) the **benchmark** to be used to allocate allowances free of charge to aircraft operators whose applications were submitted to the Commission. That benchmark, expressed as allowances per tonne-kilometre, shall be calculated by dividing the number of free of charge allowances (d) by the sum of the tonne-kilometre data included in applications submitted to the Commission.



Within three months from the date on which the Commission adopts the decision each administering **Member State** shall calculate and publish:

- a) the **total allocation of allowances for the period to each aircraft operator**, calculated by multiplying the **tonne-kilometre data** included in the application by the **benchmark**

- b) the **allocation of allowances to each aircraft operator for each year**, which shall be determined by dividing its total allocation of allowances for the period by the number of years in the period.

By **28 February** of each subsequent year, the competent authority of the administering Member State shall issue to each aircraft operator the number of allowances allocated to that aircraft operator for that year.

How are the tonne-km verified?

The verifier shall in particular ascertain that only flights actually performed for which the aircraft operator is responsible have been taken into account in that operator's application. In this task the verifier shall be assisted by data on the aircraft operator's traffic including data from Eurocontrol requested by that operator. In addition, the verifier shall ascertain that the payload reported by the aircraft operator corresponds to records on payloads kept by that operator for safety purposes.

What are the tonne-km data to be provided in the application?

- number of flights by aerodrome pair,
- number of passenger-kilometres by aerodrome pair,
- number of tonne-kilometres by aerodrome pair,
- chosen method for calculation of mass for passengers and checked baggage,
- total number of tonne-kilometres for all flights performed during the year to which the report relates falling within the aviation activities listed in Annex I for which it is the aircraft operator.

The amount of aviation activity shall be calculated in tonne-kilometres using the following formula:
tonne kilometres = distance x payload.



What is next after allowances have been issued?

By **30 April** each year, each aircraft operator should bid for a number of allowances (at auctioning or buying them to any person in) equal to the total verified emissions during the preceding calendar year from aviation activities minus the number of allowances allocated to it by the Member State.

Stationary installations, in the ETS, may not to use “aviation” allowances. However, aircraft operators may buy and use allowances from stationary installations, besides “aviation” allowances. Additionally aircraft operators may use certified emission reductions (CERs) and emission reduction units (ERUs) up

to 15 % of the number of allowances they are required to surrender (compensation projects in third countries).

By 30 April each year, each aircraft operator shall surrender a number of allowances equal to the total verified emissions during the preceding calendar year from aviation activities.

Penalties

Member States shall ensure publication of the names of aircraft operators who are in breach of requirements to surrender sufficient allowances under this Directive.

Member States shall ensure that any operator or aircraft operator who does not surrender sufficient allowances by 30 April of each year to cover its emissions during the preceding year shall be held liable for the payment of an excess emissions penalty. The excess emissions penalty shall be EUR 100 for each tonne of carbon dioxide equivalent emitted for which the operator or aircraft operator has not surrendered allowances. Payment of the excess emissions penalty shall not release the operator or aircraft operator from the obligation to surrender an amount of allowances equal to those excess emissions when surrendering allowances in relation to the following calendar year.

Timetable for allocation and issue of allowances

