



## EU ETS and Aviation

Standard Note: SN/SC/5533

Last updated: 23 May 2012

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Section Science and Environment Section

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As part of the effort to reduce emissions the aviation sector has been included in the EU Emissions Trading Scheme (EU ETS) since 1 January 2012. The scheme applies to all airlines that fly in and out of the EU. Emissions will be capped at 95% of historical emissions and revenues raised will be retained by Member States. It is expected that the majority of the cuts will be met by airlines purchasing international credits created through the Kyoto protocols rather than through the purchase of EU ETS credits or reducing their own emissions.

International aviation organisations and non EU countries have expressed strong opposition to the scheme, with countries such as India and China instructing their airlines not to take part in the scheme. This could, in the long term, lead to non compliant airlines being banned from flying to EU countries. However, the first EU ETS credits are not due to be submitted by airlines to the EU until April 2013.

General information about the EU ETS can be found in library notes SN/SC/5092 [EU ETS: Phase II and III](#) and SN/SC/3408 [EU ETS: Background and Phase I](#).

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## 1 Background

Emissions from aviation are forecast to contribute an increasing proportion of the UK's total emissions. Whilst emissions from other sector are expected to decrease up to 2050, it is generally accepted that the predicted growth in aviation will result in increased emissions. In November 2007 the Department for Transport published a paper, *UK Air Passenger Demand and CO2 Forecasts*. This predicted that, taking radiative forcing into account,<sup>1</sup> the 9% contribution of aviation in the 2005 to total UK emissions will have grown to around 15% in 2020 and 29% in 2050.

The UK Government's response to the above figures was to strongly support including aviation in the EU ETS and this was one of the stated aims of its EU presidency in 2005:

The Government believes that the best way of ensuring that aviation contributes towards the goal of climate stabilisation would be through a well-designed emissions trading regime. An international industry requires an international solution and we are therefore pursuing this within the International Civil Aviation Organisation. However, until a truly global solution can be found, we are seeking to show EU leadership by

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<sup>1</sup> Emissions from aviation other than CO<sub>2</sub>, such as NO<sub>x</sub> and contrail formation, are believed to enhance the contribution to climate change of aviation by a factor of around 2. This is known as radiative forcing.

pressing for the inclusion of aviation in the EU ETS as soon as possible and certainly before the end of Phase II of the scheme.<sup>2</sup>

The EU Commission published its final proposals for including aviation in the EU ETS in December 2006. The aim was to bring all aircraft that fly into the EU, other than light airplanes, into the scheme by 2012. The proposals were summarised as follows in a Commission press release:

The directive will treat all airlines equally, whether EU-based or foreign. From 2011 all domestic and international flights between EU airports will be covered, and from 2012 the scope will be extended to all international flights arriving at or departing from EU airports. It is estimated that by 2020 CO<sub>2</sub> savings of as much as 46%, or 183 million tonnes, could be achieved each year – equivalent for example to twice Austria's annual greenhouse gas emissions from all sources – compared with business as usual.

To limit the rapid growth in aviation emissions, the total number of emission allowances available will be capped at the average emissions level in 2004-2006. Some allowances will be auctioned by Member States but the overwhelming majority will be issued for free on the basis of a harmonised efficiency benchmark reflecting each operator's historical share of traffic.

To reduce administrative costs, very light aircraft will not be covered, and each operator will be administered by only one Member State.

The directive is part of a comprehensive approach to addressing aviation emissions which also includes more research into greener technologies and improvements in air traffic management.

### **Impact on ticket prices**

Assuming airlines fully pass on any extra costs to customers, by 2020 the price of a typical return flight within the EU could rise by between €1.8 and €9. Long-haul trips could increase by somewhat more depending on the exact journey length, due to their higher environmental impact. Nevertheless, ticket price increases are in any case expected to be significantly lower than the extra costs passed on to consumers due to world oil price increases in recent years.<sup>3</sup>

Following consideration by the European Parliament's Environment Committee, the European Parliament and the Member State Environment Ministers, the European Environment Council reached agreement on including aircraft emissions in the EU emissions trading scheme. The agreement was similar to the Commission's original proposal in December 2006, but did have some changes. The main change was that plans to include internal EU flights in the EU ETS a year earlier (in 2011) had been dropped:

- The one-year introductory phase for intra-EU flights proposed by the Commission has been dropped, and the scheme will now become operational in a single phase, starting in 2012.
- Emissions will be capped at 100 percent of the average level for the years 2004-2006.

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<sup>2</sup> Defra website, *Including aviation and surface transport in the EU ETS*, 10 December 2007  
<http://www.defra.gov.uk/environment/climatechange/trading/eu/future/aviation.htm>

<sup>3</sup> EU Commission Press Release, 'Climate change: Commission proposes bringing air transport into EU Emissions Trading Scheme',  
<http://europa.eu/rapid/pressReleasesAction.do?reference=IP/06/1862&format=HTML&aged=0%3Cuage=EN&guiLanguage=en>

- The level of auctioning has been increased to 10 percent, and revenue from the auctioned allowances should be used to combat climate change.
- An exemption has been introduced for operators with very low traffic levels on routes to, from or within the EU. Under this mechanism many operators from developing countries with only limited air traffic links with the EU will be exempt. This will not have a significant effect on the emissions covered by the scheme.
- A special reserve of free allowances for new entrants or very fast-growing airlines has been added. While this was not contained in the original Commission [proposal], it was found to be acceptable as the reserve is taken from within the overall cap and does not therefore affect the environmental effect of the scheme.
- A new mechanism to ensure consistent and robust enforcement throughout the EU has been introduced. As a last resort, Member States could ask for an operator to be banned from operating in the EU if it persistently has failed to comply with the scheme and other enforcement measures have proven ineffective.<sup>4</sup>

The wording of the final Directive, set out below, sets the emissions cap at 95% of historical emissions:

Total quantity of allowances for aviation

1. For the period from 1 January 2012 to 31 December 2012, the total quantity of allowances to be allocated to aircraft operators shall be equivalent to 97 % of the historical aviation emissions.

2. For the period referred to in Article 11(2) beginning on 1 January 2013, and, in the absence of any amendments following the review referred to in Article 30(4), 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 the general review of this Directive.

The Commission set a date of 2 August 2009 to decide on historical aviation emissions based on available data. The Directive also set out that from 1 January 2013, 15 % of allowances shall be auctioned. This percentage could be increased as part of the general review of the Directive.<sup>5</sup>

## 2 Impact of Inclusion in EU ETS

An article in Ends Report article summarised the reaction to the proposals as follows:

Airlines and environmentalists criticised the deal. 'The policy will offset just one year's growth in emissions from the aviation sector,' said T&E campaigner Joao Vieira, who branded the deal 'a historic missed opportunity'. The Association of European Airlines warned of carbon leakage. 'Why would you pay more for your ticket if you can transit

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<sup>4</sup> European Commission website, [Environment: Commission welcomes Council agreement on aviation](#), 20 December 2007

<sup>5</sup> [DIRECTIVE 2008/101/EC](#) OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 19 November 2008 amending Directive 2003/87/EC so as to include aviation activities in the scheme for greenhouse gas emission allowance trading within the Community

through a non-EU hub that avoids the tax that is now the EU ETS?' said a spokeswoman.<sup>6</sup>

The Commission predicted that some of the emission savings would be made by the airlines themselves while others would be made by purchasing credits from other sectors:

The environmental impact of the proposal will be significant because aviation emissions, which are currently growing rapidly, will be capped at their average level in 2004-2006. By 2020 it is estimated that a total of 183 million tonnes of CO<sub>2</sub> will be saved per year on the flights covered, a 46% reduction compared with business as usual. This is equivalent, for instance, to twice Austria's annual greenhouse gas emissions from all sources. Some of these reductions are likely to be made by airlines themselves. However, participation in the EU scheme will also give them other options: buying additional allowances on the market – i.e. paying other participants to reduce their emissions - or investing in emission-saving projects carried out under the Kyoto Protocol's flexible mechanisms. Providing aviation with these options does not reduce the environmental impact of the proposal since the climate impact of emission reductions is the same regardless of where they are made.<sup>7</sup>

## 2.1 Actual Emission Reductions?

The environmental lobby argued that the actual cuts in emissions achieved by the airlines themselves would be very limited:

All the impact assessments currently on the table show that integrating aviation into the EU-ETS will do next to nothing to reduce aviation emissions. Even an assessment by Ernst & Young commissioned by the aviation industry shows that even in the toughest scenario envisaged, by 2020 emissions would grow by 83% rather than 86% in a business-as-usual situation. Last March, European leaders committed to reduce emissions at least by 20% by 2020. The Commission's Impact Assessment suggests that integration of aviation into the EU-ETS policy will only reduce aviation emissions by about 3%. In other words it would offset just one year's growth of the sector's emissions.

The reason why integration in the ETS will not change the emissions of the sector is that the CO<sub>2</sub> prices in the system will be around €15 per tonne, which is a significant amount for powerplants, steel mills and the like, but translates into an insignificant 3.8 cents per litre of kerosene (the fuel used in aircraft). However, the aviation industry has set itself an objective to improve fuel efficiency by 50% by 2020 compared to 2000 (3.5% per year). But the European Commission proposal contains no guarantees that the sector will actually deliver these improvements.<sup>8</sup>

These figures are based on the Commission's own projections included in its impact assessment for the inclusion of aviation on the EU ETS. The Commission produced four different scenarios looking at EU ETS prices of €15 and €6, and including or excluding international credits. The actual emission reductions for 2020 for the aviation were 2.8% for the higher price and 1.1% for the lower price. The document, including the four scenarios, can be found [here](#).<sup>9</sup> The price of EU ETS credit at the beginning of 2011 was around €15, by January 2012 it had dropped to just under €9.

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<sup>6</sup> ENDS European Report, *Climate: Rules on flight emissions ready to become reality*, 1 February 2009

<sup>7</sup> EU Commission MEMO/06/506, [Questions & Answers on aviation & climate change](#), 20 December 2006

<sup>8</sup> Transport and Environment, *Including Aviation in the EU's Emissions Trading Scheme*, Updated June 2008

<sup>9</sup> EU Commission, *Impact Assessment*, COM(2006) 818 final, 20 December 2006, p41

According to the Commission's estimates the theoretical impact of inclusion is that emissions reductions of 183 millions tonnes of CO<sub>2</sub>, a 46% reduction compared to business as usual will be achieved by aviation as their emissions will be capped at 2004-06 levels. However as the Commission pointed out the option of purchasing credits from within the EU ETS and the Kyoto schemes mean that other options are available to the aviation industry and actual cuts are not likely to be anything as significant:

Providing aviation with these options does not reduce the environmental impact of the proposal since the climate impact of emission reductions is the same regardless of where they are made.<sup>10</sup>

In fact the inclusion of aviation was not expected to have any impact on the price of EU ETS carbon credits as according to the Commission:

It is anticipated that the additional demand for allowances generated by the sector will be largely met through an increase in the number of credits bought from emission-saving projects carried out under the Kyoto Protocol's flexible mechanisms.<sup>11</sup>

### **3 How the Scheme Functions**

#### **3.1 Exemptions from the EU ETS**

The Directive exempts commercial airlines that have a limited number of flights:

In line with the principle of better regulation, certain flights should be exempt from the Community scheme. To further avoid disproportionate administrative burdens, commercial air transport operators operating, for three consecutive four-month periods, fewer than 243 flights per period should be exempt from the Community scheme. This would benefit airlines operating limited services within the scope of the Community scheme, including airlines from developing countries.<sup>12</sup>

There is also a longer list of excluded activities in [Annex I](#) of the Directive including military flights; search and rescue flights; humanitarian flights; aircraft with a take-off mass of less than 5700kg, and various others.

#### **3.2 Special Allocation Reserve**

There is a reserve - 3% of the total allocation - which will be available to new entrants and to existing operators who show growth of more 18% within a set period:

1. In each period referred to in Article 3c(2), 3 % of the total quantity of allowances to be allocated shall be set aside in a special reserve for aircraft operators:

(a) who start performing an aviation activity falling within Annex I after the monitoring year for which tonne-kilometre data was submitted under Article 3e(1) in respect of a period referred to in Article 3c(2); or

(b) whose tonne-kilometre data increases by an average of more than 18 % annually between the monitoring year for which tonne-kilometre data was submitted under

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<sup>10</sup> EU Commission MEMO/06/506, [Questions & Answers on aviation & climate change](#), 20 December 2006

<sup>11</sup> Ibid.

<sup>12</sup> DECC, [Consultation on the EU Commission's proposals to amend the EU ETS from 2013](#), May 2008

Article 3e(1) in respect of a period referred to in Article 3c(2) and the second calendar year of that period;<sup>13</sup>

### **3.3 Who will retain the funds raised by auctioning the 15% of allowances to the aviation sector?**

Airlines have been allocated to the countries they mainly fly to. Out of a total of about 4000, the UK has been allocated 891 second only to France. Funds raised through auction will go to Member States so the UK will receive a significant proportion of the revenue. The Directive does state that money raised *should* be spent on reducing climate impacts:

It shall be for Member States to determine the use to be made of revenues generated from the auctioning of allowances. Those revenues should be used to tackle climate change in the EU and third countries, inter alia, to reduce greenhouse gas emissions, to adapt to the impacts of climate change in the EU and third countries, especially developing countries, to fund research and development for mitigation and adaptation, including in particular in the fields of aeronautics and air transport, to reduce emissions through low-emission transport and to cover the cost of administering the Community scheme. The proceeds of auctioning should also be used to fund contributions to the Global Energy Efficiency and Renewable Energy Fund, and measures to avoid deforestation.<sup>14</sup>

However, the UK Government has a policy of not hypothecating tax revenue, and the consultation document indicated that this was not likely to change:

On hypothecation (also known as earmarking), the Government is opposed to the Commission's proposal that a proportion of auctioning revenue should be dedicated to climate change measures. Whilst earmarking clearly appeals to many stakeholders, it is an inefficient means of determining public expenditure priorities which should generally be looked at in the round rather than by creating artificial links between particular spending programmes and specific revenue streams. Moreover, it is inappropriate for EC legislation to determine national public expenditure allocations, for which national governments are responsible and accountable to their national parliaments. Mandatory hypothecation at an EU level therefore runs counter to the principle of subsidiarity, which the Government strongly supports.<sup>15</sup>

Funds raised will depend on price of carbon at the time. After 2013 there is also potential to increase the percentage of permits auctioned should the EU decide to do so, therefore increasing revenues. An article in *Ends Europe* gave some indication of the likely sums involved:

Global emissions from aviation are currently about 700 million tonnes of CO<sub>2</sub>. It is predicted that the EU ETS will lead to an annual reduction of about 20 million tonnes once the scheme has bedded down by 2013. As a comparison, Western Europe's largest power station at Drax in Yorkshire, UK, emits about 22 million tonnes of CO<sub>2</sub> per year so the savings can be viewed as significant. Airline emissions will be capped at 97% of 2004-06 levels in the first year of inclusion. Thereafter, the cap will be lowered to 95% of historical emissions. This reduction in the total number of

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<sup>13</sup> <sup>13</sup> [EU Official Journal](#), DIRECTIVE 2008/101/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 19 November 2008 amending Directive 2003/87/EC so as to include aviation activities in the scheme for greenhouse gas emission allowance trading within the Community, 13 January 2009

<sup>14</sup> <sup>14</sup> [EU Official Journal](#), DIRECTIVE 2008/101/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 19 November 2008 amending Directive 2003/87/EC so as to include aviation activities in the scheme for greenhouse gas emission allowance trading within the Community, 13 January 2009

<sup>15</sup> DECC, [Consultation on the EU Commission's proposals to amend the EU ETS from 2013](#), May 2008

allowances available is expected to increase their cost, further encouraging operators to reduce their carbon footprints.

Given that the aviation sector's 2012 emissions are expected to be about 130% of 2005 levels, only about 60% of the allowances the sector needs will be issued for free in 2012. If the traded carbon price doubles to an expected €30 per tonne, airlines will contribute a collective €3.5bn annually to EU coffers by buying extra allowances at auction. Aircraft operators flying newer fleets will have a substantial advantage over their competitors, because some newer models emit 30% less carbon than comparative older ones that are still being flown. It is perhaps no surprise that operators flying the oldest fleets, such as American Airlines and Delta, have been most scathing of the emissions trading scheme, while owners of modern fleets with an average age of less than four years, such as EasyJet and Ryanair, have called on regulators to ban older aircraft operated by competitors.<sup>16</sup>

#### **4 Decision on Historical Emissions**

The EU Commission announced its decision on historical emissions from aviation, on which the allocation of credits would be based, in March 2011:

The European Commission has, today, taken an important step in preparing for the full inclusion of aviation in the EU's emissions trading system (EU ETS) from 1 January next year. The European Commission has decided on the historical aviation emissions which will be used to calculate the number of aviation allowances to be available from 2012.

Connie Hedegaard, European Commissioner for Climate Action, said: "Emissions from aviation are growing faster than from any other sector, and all forecasts indicate they will continue to do so under business as usual conditions. Firm action is needed. By publishing the data on which allocations will be based, we prepare for the full inclusion of aviation in the emissions trading system. "

The decision on historical aviation emissions of 219,476,343 tonnes of CO<sub>2</sub> represents the average of the estimated annual emissions for the years 2004, 2005 and 2006 of all flights that would be covered by the EU ETS performed by aircraft operators to and from European airports. Based on this figure for average annual aviation emissions in 2004-2006, the number of aviation allowances to be created in 2012 amounts to 212,892,052 tonnes of CO<sub>2</sub> (97% of the historic aviation emissions figure) , and the number of aviation allowances to be created each year from 2013 onwards amounts to 208,502,525 tonnes of CO<sub>2</sub> (95% of the historic aviation emissions figure).<sup>17</sup>

An analysis the credit rating company Standard and Poor set out what it believed to be the potential impacts on the airline industry:

The additional cost burden on airlines arising from their inclusion in the EU ETS from 2012 is, at least initially, marginal in our view when compared with existing fuel expenses and aircraft lease payments or depreciation charges," said Standard & Poor's credit analyst Stuart Clements. "Nevertheless, it will add further cost pressure to a cyclical, capital-intensive, and highly competitive industry already subject to volatile fuel prices, and may further differentiate aircraft operators.

"Moreover, we believe that EU-based airlines may be more severely affected than non-EU based carriers, which could create a competitive mismatch and introduce the risk of

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<sup>16</sup> ENDS Europe, Aviation's entry into the EU ETS off to a shaky start, 7 September 2009

<sup>17</sup> Europa, [Inclusion of aviation in the EU ETS: Commission publishes historical emissions data on which allocations will be based](#), 7 March 2011



carbon leakage (that is, the transfer of airline activities to non-EU operators or to routes not covered by the EU ETS)."

The EU ETS covers all flights arriving or departing from EU airports regardless of the nationality of the aircraft operator. It aims to offer an economically efficient method of constraining airlines' CO<sub>2</sub> emissions while allowing them to grow within an overall emissions target. With the industry continuing to grow at a rate faster than it can improve fuel efficiency, the result is that airlines will have to buy permits from other sectors to cover their emissions liabilities. Therefore, costs to the industry are in our view likely to increase in line with emissions growth and the price of carbon. In 2012-2013--the first year of trading for airlines under the EU ETS--we estimate that the industry will likely incur an additional cost of approximately EUR1.125 billion.<sup>18</sup>

## 5 International Opposition to the Scheme

The Energy and Climate Change Select Committee published a report on the EU Emissions Trading System in January 2012 in which it welcomed the use of market power to compel other countries to adopt climate mitigation measures:

The inclusion of aviation in the EU Emissions Trading System from 1 January this year is a welcome sign that the EU is willing to flex the muscle of its market power to compel other countries to adopt climate change mitigation measures. Unilateral and courageous action by the EU created a carbon price for over half of the world's aviation emissions for the first time. In this Report, we argue that unilateral action at the EU level can produce real environmental benefits within the EU and encourage other countries to adopt their own emissions reduction measures.<sup>19</sup>

However, outside the EU the view is different. A meeting of the International Civil Aviation Organisation and representatives of twenty six non-EU countries opposed to the scheme took place in New Delhi in September 2011. Those present agreed to work together to fight the scheme, which they viewed as illegal.<sup>20</sup> A further meeting is planned.

### 5.1 Refusal to Comply

The first report on annual emissions from airlines –for 2011 – must be submitted by March 2012. Annual emissions reports for 2012, when the scheme is fully operational are not due until March 2013. The first set EU ETS allowances must be surrendered by April 2013.

Both Indian and China have reportedly told airlines flying to Europe not to comply with the scheme. In the US there have been attempts to pass a Bill that would make it illegal for US airlines to comply with the scheme, although this is not likely to become law.

The Climate Commissioner Connie Hedgaard has published a response to the above setting out the cost of compliance to Chinese and Indian Airlines:

With the inclusion of aviation in the EU Emissions Trading System, the fact is that 85% of aviation allowances will be allocated for free to aircraft operators covered by the system in 2012. In the period 2013-2020 this percentage of free allocation will reduce to 82%. The costs to passengers will then depend on whether the airlines pass through the value of the 85% of free allowances.

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<sup>18</sup> Standard & Poor, [DJ S&P Comments On Likely Effect Of EU ETS On Airlines' Costs](#), 4 March 2011

<sup>19</sup> ECC Committee, [The EU Emissions Trading Scheme](#), HC1476, Session 10-12, 26 January 2012.

<sup>20</sup> Indian Ministry of Civil Aviation, [International meeting of ICAO Council and Non-EU Member States on Inclusion of Aviation in EU-ETS](#), 30 September 2011

Depending on the airlines' decisions, costs can range between €2 and €12 a ticket each way on a transatlantic or other long-haul flight at current carbon prices.

Let's us look at the total costs and cost per passenger for Chinese and Indian airlines:

- Total costs of purchasing additional allowances and CDM credits for 2012 emissions for Chinese airlines operating in Europe, assuming constant flight traffic, are estimated at around €4.23 million assuming that the full amount of CDM is used.
- The estimated CO2 emissions per passenger of a one-way flight from Paris to Beijing would be around 627 kg. The value of the allowances that need to be surrendered would be €7.52 per passenger at current carbon prices. Given the high level of free allocation of allowances to airlines, it is estimated that the cost for the airline in purchasing additional allowances to cover the emissions would be €1.50.
- Total costs of purchasing additional allowances and CDM credits for 2012 emissions for Indian airlines operating in Europe, assuming constant flight traffic, are estimated at around €1.1 million assuming that the full amount of CDM is used.
- The estimated CO2 emissions per passenger of a one-way flight from Delhi to London would be 480 kg per passenger. At current carbon prices the full value of allowances needed is €3.80 per passenger each way. As Indian airlines will be getting 85% of the allowances they need for free, the additional cost per passenger carried will around 65 cents.<sup>21</sup>

More recently there are press reports that the International Air Transport Association has called for the UN to intervene to avoid the dispute escalating into a trade dispute.<sup>22</sup>

## 5.2 Failed Legal Challenge

Aviation has been part of the EU ETS from 1 January 2012. In the run up to this there were several challenges launched by non-EU airlines, their representative bodies and Governments to resist this.

The Airline Transport Association of America and three of its airlines American Airlines, Continental and United Airlines, took a case to the High Court in London against the implementation of the EU ETS. The UK courts referred it to the European High Court. The main point of the case was that the EU was breaking international law by applying the scheme to distances travelled outside the EU, where it has no jurisdiction under the Chicago Convention on International Aviation.

The Advocate General published her advice to the High Court on 6 October 2011. In this she argued that the rules of the Chicago Convention did not apply because although individual Member States are signatories the EU is not. She also stated the view that the scheme did not contravene the Open Skies agreement between the EU and the US as it was not a tax on fuel, and was applied to all airlines and therefore did not confer an unfair competitive advantage to any. Finally she disagreed that there was any extra territorial effect of the scheme simply because it used the whole of the distance travelled, including outside the EU, to calculate emissions.<sup>23</sup>

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<sup>21</sup> Connie Hedegaard, [Time to get the proportions right on ETS and aviation](#), 7 February 2012

<sup>22</sup> BBC, [Airlines seek United Nations deal on EU carbon scheme](#), 13 February 2012

<sup>23</sup> Ends Report 441, *Richard Macrory's legal commentary: Aviation emission trading survives first legal hurdle*, 24 October 2011, pp. 59-60

The Court of Justice of the European Union published its decision on 21 December 2011, in which it agreed with the opinion of the Advocate General. A press release summarising the judgement stated:

The directive including aviation activities in the EU's emissions trading scheme is valid. Application of the emissions trading scheme to aviation infringes neither the principles of customary international law at issue nor the Open Skies Agreement.<sup>24</sup>

### **5.3 Airline Compliance on Reporting**

The EU Commission published figures on reporting compliance by airlines for 2011 in May 2012. These show that the majority of companies are complying with the scheme's requirements:

#### **Second year of emissions reporting from aircraft operators with very high level of compliance**

As in 2010, almost all commercial airlines with significant operations to or from EU airports have reported their 2011 emissions on time, despite the fact that these emissions do not trigger obligations to surrender allowances this year and are not needed for specific regulatory purposes. More than 1200 emissions reports for 2011 have been submitted to the Member States by airlines. There has been systematic non-reporting of 2011 emissions from flights to or from EU airports by airlines based in China and India. This concerns 10 commercial airlines that are currently operating to or from the EU, representing less than 1% of emission reports and less than 3% of emissions.<sup>25</sup>

The Commission reportedly extended the deadline for reporting until the end of May to allow the remaining airlines to comply.

## **6 UK Implementation**

The Environment Agent is responsible for administering the Emissions Trading Scheme in the UK. It is also the competent body in England and Wales for aviation operators to submit emissions monitoring plans and emissions data to. It has produced an [FAQ document](#) explaining how the schemes functions in practice.

## **7 Emission statistics**

### **7.1 UK Aviation Emissions**

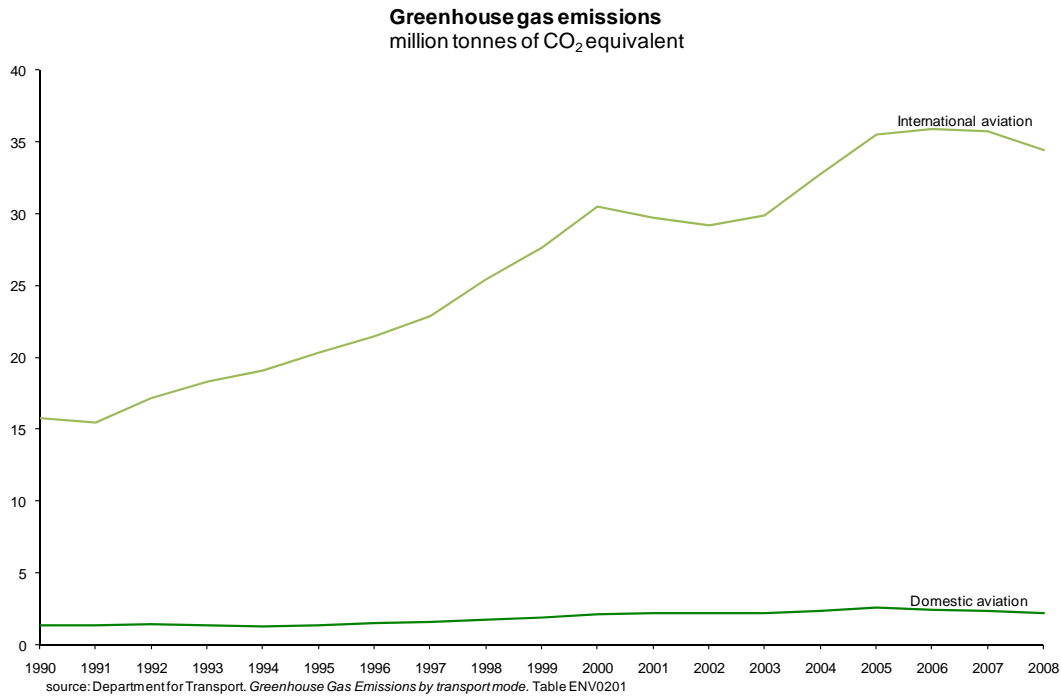
In 2008 greenhouse gas emissions from aviation in the UK totalled 36.6 million tonnes of carbon dioxide equivalent (mtCO<sub>2</sub>e).<sup>26</sup> International aviation contributed 34.4 mtCO<sub>2</sub>e to this total with the remaining 2.2 mtCO<sub>2</sub>e coming from domestic aviation. Greenhouse gas emissions from aviation have more than doubled since 1990.

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<sup>24</sup> Court of Justice of the European Union, *Press Release No 139/11*, 21 December 2011

<sup>25</sup> EU Commission, [Emissions trading: annual compliance round-up shows declining emissions in 2011](#), 15 May 2011

<sup>26</sup> Department for Transport. *Greenhouse Gas Emissions by Transport Mode*. Table ENV0201



## 7.2 EU Aviation: Biggest contributors

As the table overleaf shows in 2009 the United Kingdom had the highest level of CO<sub>2</sub> aviation emissions in the EU-15, followed by Germany and France. All three nations handle high volumes of international flights at large hub airports.

**EU-15 Aviation Emissions, 2009.**

	Million tonnes of CO <sub>2</sub>			% of total EU-15
	Domestic Aviation	International Aviation	Total	
United Kingdom	1.8	32.8	34.6	24.2%
Germany	2.1	25.0	27.1	18.9%
France	4.5	15.8	20.3	14.2%
Spain	3.6	12.6	16.2	11.3%
Italy	2.2	9.0	11.2	7.8%
Netherlands	0.0	10.2	10.3	7.2%
Belgium	0.0	4.4	4.4	3.1%
Greece	1.5	2.6	4.1	2.8%
Portugal	0.3	2.4	2.8	1.9%
Sweden	0.5	2.0	2.5	1.8%
Denmark	0.2	2.3	2.5	1.7%
Ireland	0.1	2.2	2.3	1.6%
Austria	0.1	1.9	2.0	1.4%
Finland	0.3	1.6	1.8	1.3%
Luxembourg	0.0	1.3	1.3	0.9%
<b>EU-15</b>	<b>17.2</b>	<b>126.0</b>	<b>143.2</b>	<b>100.0%</b>

Source:  
National Inventory Submissions to UNFCCC in 2011