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The EU ETS and the Aviation Industry: A Swirling Controversy and the International Debate



**Aviation and Climate Change - Law & Policy is a collaborative effort of the firm of Condon & Forsyth LLP, Attorneys at Law, and The Hodgkinson Group, Aviation and Climate Change Advisors, to address and analyze current topics related to the issue of aviation and climate change.**

**This first edition is intended to familiarize the reader with important climate change issues facing the aviation industry and to serve as a resource for comprehensive analysis of potential solutions.**

**As the European Union (EU) is currently seeking to incorporate aviation into its existing Emissions Trading Scheme (ETS) to further the EU's commitment to combat the climate crisis, the ETS has become the most pressing issue facing the aviation industry at this time and will be the area of concentration of our first edition. See sidebar on page 4 for summary of the ETS.**

**Published quarterly, this newsletter will follow issues discussed herein and will build upon its foundation as the world addresses the climate change problem.**

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## **The EU ETS and the Aviation Industry: A Swirling Controversy and the International Debate**

To incorporate aviation into the European Union's (EU's) existing Emissions Trading Scheme (ETS)<sup>1</sup>, the European Commission drafted a Proposal<sup>2</sup> which has become a springboard for international debate. The Proposal seeks to incorporate the international aviation industry into its existing ETS, the first international cap and trade system for emissions in the world, as a means to limit or reduce carbon emissions within the EU.

The Proposal is controversial because all industries subject to the existing EU ETS, unlike aviation, are static industries within the EU and subject to only EU control. Aviation, on the other hand, is an international industry subject not only to international law but also to the control of governments around the world which are unlikely to yield to the unilateral actions of the EU. Thus, governments of several international states led by the U.S. and supported by the airline industry have disapproved of the Proposal since it was first recommended by the European Commission (the Commission) in 2007. Even within the EU, the Proposal has weathered quite a bit of turbulence and has endured several modifications by various EU governmental bodies. Ironically, the same Proposal causing distress within governments and the aviation industry is also being criticized by environmentalists as weak and insignificant.

The original Proposal sought to reduce aviation-related carbon dioxide emissions to one hundred percent of the levels released between 2004 and 2006 and set forth two start dates for incorporating aviation into the existing ETS, one date (2011) for intra-EU flights and another date (2012) for international flights.<sup>3</sup>

In November 2007, the European Parliament (Parliament) agreed with the Commission's recommendation to incorporate aviation into the existing EU ETS and expressed preliminary approval of the Proposal. However, Parliament strengthened the requirements for airlines in two significant ways. First, Parliament set the start date of 2011 to apply to all airlines flying to, from and between EU airports and,

second, it reduced the aircraft carbon dioxide emissions level to ninety percent of emissions released between 2004 and 2006.

In December 2007, the Council of Ministers (Council) approved the recommendation to include aviation into the EU ETS but pushed back the start date for all flights to 2012.<sup>4</sup> The Council also restored the reduction in carbon dioxide emissions to one hundred percent of the average emissions released between 2004 and 2006. Then, in July 2008, the Parliament voted to include the aviation industry in the EU ETS starting in 2012 but reduced aviation emissions to ninety-seven percent of the average of 2004-2006 emissions.<sup>5</sup> Parliament further voted to require all aircraft to reduce aviation emissions by another two percent in 2013 to ninety-five percent of the average 2004-2006 levels. Before the Proposal can become law, the Council must vote on and approve the Proposal. The vote is expected to take place before the end of 2008. Whether the Council approves the Proposal is questionable, given the wide gap between the positions of the Council and Parliament on key points of the Proposal.

Under the current form of the Proposal, all flights are treated equally. In an effort to ensure fairness among the airlines, the administration of allowances for aviation emissions under the Proposal will be managed through an EU harmonized method rather than by each Member State, as it is for other industries.<sup>6</sup> Although the airline industry generally disfavors incorporation into the ETS and fears the financial impact on an industry already hemorrhaging profits, airlines are held to a lower standard than other industries already subject to the ETS which are required to reduce emissions to eight percent below 1990 levels.<sup>7</sup> Unlike other industries, in addition to the imposition of a hefty year-end fine for excessive emissions, airlines face the penalty of being denied the right to fly into and out of EU airports.<sup>8</sup>

The treatment of airlines under the EU ETS is otherwise substantially the same as that given to other industries: (1) each airline would be allocated a substantial number of free allowances; (2) at the end of every year, each airline would be required to surrender allowances matching in number the carbon dioxide emissions released by the airline that year; (3) airlines would also be allowed to buy and sell allowances across all other sectors of industry subject to the EU ETS; (4) each aircraft operator would be responsible for monitoring and reporting its own carbon dioxide emissions; and (5) each airline would be responsible for verifying its reports through an independent reporter.<sup>9</sup>

### Carbon Emissions, Climate Change and Aviation

Generally, the earth is made habitable by sunlight - energy that reaches the earth from the sun. About thirty percent of sunlight is "scattered" back into space. The remainder of sunlight is trapped in the earth's atmosphere as infrared radiation, a slow-moving energy which will eventually escape to outer space, unless it is trapped by the blanket of greenhouse gases (GHGs) in the earth's atmosphere. Thus, excessive amounts of GHGs, most particularly carbon dioxide, are perilous to the environment because they increase infrared heat retention by preventing heat from escaping to outer space. See UNFCCC, *The Greenhouse Effect and the Carbon Cycle*

([http://unfccc.int/essential\\_background/feeling\\_the\\_heat/items/2903.php](http://unfccc.int/essential_background/feeling_the_heat/items/2903.php)). The excess infrared heat trapped in the atmosphere warms the earth, causing global warming and eventually climatic change. See Info. Admin., *Greenhouse Gases, Climate Change and Energy*, Apr. 2, 2004 (<http://www.eia.doe.gov/oiaf/1605/ggccebro/chapter1.html>).

Aircraft emissions have faced increasing scrutiny because they are believed to be more dangerous to the environment than emissions from other modes of transportation. For example, an aircraft produces 191 grams of carbon dioxide per passenger while a car produces 143 grams of carbon dioxide per passenger and a train produces 43 grams of carbon dioxide per passenger. See *EU Parliament Discusses Extending Emissions Trade to Aviation*, Nov. 12, 2007 (<http://www.chinaview.cn>).

It is also believed that the consequential effect of aircraft carbon dioxide emissions on global warming is increased by two to four times more than other industries because aircraft leave condensation trails at high altitudes. See *Aviation and Emissions Trading*, Oct. 12, 2007

(<http://www.euractiv.com/en/transport/aviation-emissions-trading/article-139728>).

Exceptions to the Proposal include military, customs and police flights (but not diplomatic or government flights), firefighting/emergency flights, United Nations' approved humanitarian flights, research flights, and flights with takeoff weights less than 5.7 tonnes. The Proposal also includes an additional exemption for airlines with little traffic from, to or within the EU (developing countries with few flights to Europe) and a special reserve of free credits to be allocated to start-up or unexpectedly fast-growing airlines. Smaller jets which are increasingly preferred by business and celebrity flyers will be subject to the EU ETS.<sup>10</sup>

The international debate about the conditions within the Proposal is expected to continue because it appears that no one is satisfied. Indeed, within the EU itself, the Parliament supports greater restraint on emissions and an earlier start date for the incorporation of the aviation industry within the EU ETS while the Council, evidenced by its December 2007 modifications, favors less stringent parameters for aviation under the ETS. As discussed below, the aviation community (international and EU-domestic) is unhappy with the Proposal's impact on the airlines' finances while several international governments (led by the U.S.) decry it as unfair and unlawful. Environmentalists, in addition, dismiss the Proposal for lacking the strength and force necessary to have any significant impact on combating climate change.

### Why Is The EU Doing This?

The EU intends to "show world leadership on climate change and to help meet an internal goal to reduce greenhouse gas levels by at least twenty percent compared with 1990"<sup>11</sup> by incorporating aviation into its existing ETS. Notably, the EU seeks to incorporate aviation in Phase II of the ETS, which is, the same time frame the EU has to achieve target emissions reductions under the Kyoto Protocol (see sidebar on page 7 for summary of the Kyoto Protocol). Members of the European Parliament admitted that although incorporating aviation "may not be the most effective tool to combat aviation emissions, ... it is among the most politically expedient."<sup>12</sup> The EU Commission's Head of Unit for Clean Air and Transport further admits that Europe has agreed to a twenty percent reduction in greenhouse gases by 2020 which "has to come from somewhere."<sup>13</sup>

Whatever the reason, it appears that the EU has found a means to help it achieve its Kyoto Protocol emissions reduction target by incorporating the aviation industry into the existing EU ETS by the end of Phase II.

### Carbon Emissions, Climate Change and Aviation

In-flight aircraft release many types of emissions, including carbon dioxide (which is released in large quantities and remains in the atmosphere for an extended time, resulting in its well-known and direct contribution to global warming); nitrous oxides (which result in harmful ozone production through sunlight, but which also beneficially reduce methane concentrations, another harmful greenhouse gas); water vapor (which is harmful as a contributor to the formation of condensation trails at high altitudes), sulphate particles (which reflect radiation) and soot particles (which absorb heat). See Press Release, EU Env'tl. Comm'n, *Questions & Answers on Aviation & Climate Change*, Nov. 20, 2006 <http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/05/341&format=HTML&aged=0&language=EN&guiLanguage=en>.

### UPCOMING EVENTS

#### Aviation Industry Conference – Aviation, the Environment & Emissions Trading

November 19-20, 2008  
Renaissance Hotel, Brussels, Belgium  
Marshall S. Turner, Esq.  
Condon & Forsyth LLP  
Speaker, *Legislative & Regulatory Overview On Aviation & The Environment: The U.S. Perspective*

#### The United Nations Climate Change Conference in Poznań, Poland – COP 14

The 14th session of the Conference of the Parties to the Climate Change Convention (COP 14) will be held in conjunction with the 4th Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (CMP 4) in Poznań, Poland, from 1 to 12 December 2008  
David Hodgkinson  
The Hodgkinson Group  
Attending as credentialed representative



## Non-EU Governments Led By The U.S. Cry: “Foul!”

The U.S. government has condemned the EU Proposal since it was first introduced. The Federal Aviation Administration (FAA) does not support the Proposal because it “[d]oesn’t go along with what the world community agreed to, which is that you should undertake this on the basis of mutual agreement.”<sup>14</sup>

### The European Union Emissions Trading Scheme

The European Union (EU) Emissions Trading Scheme (ETS) is the largest emissions trading scheme of its kind covering 12,000 emissions-producing installations within the EU. It was established in 2005 to help EU Member States achieve Kyoto Protocol targets. The EU describes its ETS as a flexible, market-based, cap-and-trade system founded on a cost-effective theory: as demand for the right to release emissions increases, the price attached to that right will continue to soar so that the purchasers of the right will find it more financially attractive to invest in reducing emissions rather than to continue to purchase the right to release.

The ETS is divided into several-year spans called Phases. Member States must draft a National Allocation Plan (NAP) for each Phase. A NAP sets the cap of GHG emissions that each Member State can release each year and allocates the total amount of GHG emissions that each company subject to the ETS can release each year. Thus, the NAP will set forth the number of annual allowances of carbon emissions each company in each EU Member State is entitled to release. (An allowance is worth one tonne of carbon dioxide emissions.) At the end of every year, each company subject to the ETS must surrender a number of allowances equal to the amount of emissions released. Companies releasing more than their allocated emissions can purchase allowances from other companies while companies releasing less than their allocated emissions can sell (auction) their excess allowances to other companies in need of additional allowances.

Companies subject to the EU ETS face non-compliance penalties, including paying fines and compensating the following year by returning allowances equal to the overuse (in addition to accounting for that year’s emissions and allowances). Each Member State is required to monitor its

companies and their emissions, ensuring that no company under the ETS releases emissions without a proper amount of allowances to do so, and to report emissions within its State to the designated authority.

During Phase I of the EU ETS, which recently ended on December 31, 2007, ninety-five percent of allowances were allocated free of charge. Because so many allowances were given away, the value of tradable allowances crashed. Phase II of the EU ETS commenced on January 21, 2008 and runs until 2012, which coincides with the time frame for reducing emissions under the Kyoto Protocol. During Phase II, ninety percent of the allowances will be given free of charge. The Phase II fine for excess emissions is much greater than the Phase I fine (40 Euros per excess allowance) and is set at 100 Euros per excess allowance. The biggest change to the EU ETS in Phase II is the incorporation of the aviation industry.

*See, generally*, European Parliament Post-Briefing, 12-15 Nov. 2007, *Clear Skies Ahead: MEPs vote to Curb Airline Emissions by Including Them in European Trading Scheme*, Nov. 13, 2007 (<http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+IM-PRESS+20071109IPR12781+0+DOC+XML+V0//EN>); *see also* European Parliament and Council, *Directive 32003L0087*, Article 13, Oct. 13, 2003 (<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32003L0087:EN:NOT>); Department for Environment, Food and Rural Affairs, Dep’t for Transp., *Consultation on the Commission’s Proposal to Include Aviation in the European Union Trading Scheme*, Mar. 2007, p.6; *EU Emissions Trading Scheme*, Dec. 20, 2007 (<http://www.euractiv.com/en/sustainability/eu-emissions-trading-scheme/article-133629>).

Rather, the U.S. supports regulation of aviation-related carbon dioxide (CO<sub>2</sub>) emissions through a single standard promulgated by the International Civil Aviation Organization (ICAO).<sup>15</sup> “[A]ll non-EU countries that are members of [ICAO]” support the U.S. government’s sentiment.<sup>16</sup>

The U.S. government’s position is underscored by the Kyoto Protocol’s specific direction that ICAO alone is responsible for reducing international aviation-related emissions.<sup>17</sup> Central to the EU Proposal is the imposition of charges on international airlines by requiring the purchase of allowances (or implementing fines for excess emissions) which U.S. officials argue violates the Chicago Convention of 1944. The Chicago Convention requires all signatory countries (including the EU Member States and the U.S.) to obtain ICAO’s approval before placing any charges on airlines flying into their airports. Thus, the U.S. views the EU’s implementation of its Proposal with respect to international aviation without first securing ICAO’s permission to do so as unlawful. Conversely, the EU argues that its authority to impose the ETS on aviation arises out of Article 175 of the EC Treaty.<sup>18</sup>

Even though ICAO has been identified as the international entity charged with solving the aviation carbon-emissions crisis, ICAO has neither implemented nor structured a plan of action, to the frustration of the Kyoto Protocol signatories, particularly the EU. Indeed, at its most recent Assembly in 2007, ICAO, in apparent agreement with the U.S. position, passed a resolution requiring each member to obtain an agreement with all other countries operating within its airspace prior to incorporating the other countries’ airlines into an emissions trading scheme.<sup>19</sup> This recent resolution is a departure from ICAO’s position at its 2001 and 2004 Assemblies where ICAO expressed support for the development of an open ETS for international aviation.

The only step that ICAO has taken to tackle aviation-related carbon emissions is to form a group of senior government officials to examine the possibility of voluntary emission reductions, “technological advances in both aircraft and ground-based equipment, more efficient operational measures, improvements in air traffic management, positive economic incentives, and market-based measures” as tools to reduce GHG emissions. Clearly, the EU perceives the problem of carbon emissions as an immediate threat and will not wait for ICAO to act.

The U.S. further criticizes the EU Proposal because it does not take into account known carbon-reducing measures, like improvements in air traffic control, which according to U.S. officials, has the “greatest potential for immediate and cost-effective emissions reduction.”<sup>20</sup> Notably, between 2004 and 2006, when air traffic was on the rise, the U.S. claims jet fuel usage was actually reduced and harmful emissions decreased by millions of tons through improvements in air traffic control, e.g., scheduling more direct flights and requiring

**The Montreal Protocol on Substances that Deplete the Ozone Layer**, an international treaty which was adopted in Montreal on September 16, 1987 and entered into force on January 1, 1989, was developed to address depletion of the earth’s ozone. See *Montreal Protocol on Substances that Deplete the Ozone Layer*  
<http://ozone.unep.org/pdfs/Montreal-Protocol2000.pdf>.



**The United Nations Framework Convention on Climate Change (UNFCCC)**, an international treaty ratified by more than 192 countries, came into force in 1994 as the first attempt to obtain international agreement to “stabilize” greenhouse gases (GHGs) and address climate change. The UNFCCC is a voluntary, information-sharing framework by which countries share information on GHGs and related national policies, propose and set up national programs seeking to reduce GHGs and study and prepare for climate change. See *United Nations Framework Convention on Climate Change*, May 9, 1992, S. Treaty Doc. No. 102-38, 1771 U.N.T.S. 107  
<http://unfccc.int>.

aircraft to fly at altitudes more efficient for aircraft engines.

Therefore, although the U.S. acknowledges the need to reduce global aviation-related CO<sub>2</sub> emissions, the U.S. favors a global approach through ICAO (pursuant to the Kyoto Protocol and the Chicago Convention) together with advances in technology and improvements in flight management to better address the global problem of aviation-related CO<sub>2</sub> emissions. Whether this approach continues after the U.S. presidential election in November remains to be seen.

## The Airline Industry Is Losing Altitude Over The EU ETS

Airlines and aircraft manufacturers have long faced pressure to reduce carbon dioxide and other greenhouse gas emissions from burning jet fuel and point out that their concern with excessive use of jet fuel and the accompanying emissions is based not only on environmental factors but also on financial factors.<sup>21</sup> The airline industry argues that submitting to the EU ETS will have an enormous negative financial impact on the airlines themselves, yet a virtually insignificant environmental impact on the climate change crisis. While airlines understand the problem with aviation-related carbon emissions, industry officials view the EU Proposal as an ineffective regional attempt to control a problem that requires a global solution. As pointed out by the European Regions Airline Association Director-General, commercial aviation contributes no more than two percent of global emissions, compared with the nineteen percent contribution by lighting (electricity).<sup>22</sup> Like the U.S., the “aviation industry strongly advocates a worldwide solution through ICAO.”<sup>23</sup>

It is not surprising that airlines are worried about the financial impact of the EU Proposal on the aviation industry, particularly at a time when jet fuel costs have skyrocketed, causing financial chaos in the industry. The airlines project that compliance with the EU Proposal will be accompanied by: (1) an overall compliance cost of \$60-90 billion between 2008 and 2022, (2) reduced profits by \$55 billion between 2008 and 2022, and (3) prevention of “green” investments due to lost profits. Airlines believe that it will not be feasible to pass on one hundred percent of these costs to consumers because air travel is price sensitive; increased ticket prices will result in less ticket sales, thereby contributing to a further reduction in industry profits.

Not only do U.S. airlines oppose the EU Proposal, but EU airlines likewise generally oppose the Proposal. EU carriers fear the Proposal’s effect on competition and the resulting financial losses specific to EU carriers in the event that non-EU carriers fail to participate. According to the International Air Transport Association (IATA), over 130 countries “oppose [the] proposal [which airlines estimate] will impose billions in extra costs on an industry that makes a global profit of just \$5.6 billion.”<sup>24</sup>

Although some airlines, including British Airways and Air France, support the Proposal as the “most environmentally sound way of reducing the impact of air transport on climate change,”<sup>25</sup> airlines generally support improvements in technology as a means to reduce aviation-related carbon dioxide emissions. Indeed, newer aircraft, such as the Boeing 787 Dreamliner, the Bombardier C-Series Jet and the Embraer Phenom Jets, burn less fuel than older aircraft.<sup>26</sup>

Further, airlines such as Virgin Atlantic, Japan Air Lines, Air New Zealand, Continental and British Airways, and manufacturers like Boeing, General Electric and Rolls Royce are working to develop non-fossil, alternative fuels for improved aircraft fuel efficiency. Developing these alternative fuels is a difficult yet creative process. Boeing has studied soybean-based fuels (which do not seem feasible because of the enormous amount of soybean crops that would be required to fuel one flight) and algae-based fuel (which is a more practical alternative given that it grows quickly in small areas with little care).

The U.S. government has been testing the use of synthetic fuels for military supply and has recently initiated The Commercial Aviation Alternative Fuels Initiative (CAAFI), bringing together manufacturers, airlines, airports, the Departments of Defense and Energy, and the Environmental Protection Agency “to promote development of alternative fuel options ....”<sup>27</sup> At the Aviation & Environment Summit meeting in Geneva in April of this year, aircraft and engine manufacturers, fuel suppliers, airlines and airports signed a voluntary declaration committing them to work toward carbon-neutral growth with an industry that ultimately will expel no carbon dioxide into the atmosphere.

In addition to developments in aircraft technology, airlines favor streamlining air traffic control procedures such as straightening out aviation routes to cut fuel costs and carbon dioxide emissions growth by controlling the number of aircraft on flight paths. Aircraft waste millions of tons of fuel as they zig-zag their way between national airspaces.<sup>28</sup> IATA champions the EU’s proposed “Single European Sky” Program which could streamline EU air traffic control into nine agencies from twenty-seven. In addition to increasing airport capacity and upgrading radar technology, expanding the European Aviation Agency’s power to oversee airports and air traffic management, the plan is also projected to produce 2.4 billion Euros (\$3.74 billion) in savings from eliminating wasted fuel and could reduce emissions by ten percent.

Thus, the airline industry, like the U.S. government, supports not only a global solution through ICAO but also favors improvements in aviation technology and air traffic control as the means to attack the global problem of increasing aviation-related carbon dioxide emissions.

### The Environmentalists: Too Little, Too Late

If unrestrained by a mechanism similar to the EU ETS, environmentalists warn that aviation could become the industry responsible for the majority of carbon emissions while other industries comply with emissions targets. Environmental advocacy groups, and some scientists, support the EU’s intent underlying the Proposal (original and current proposals) but criticize the Proposal as too weak. They estimate that reductions in aircraft carbon dioxide emissions under the EU Proposal would amount to only three percent – less than one year’s growth of emissions from aviation.

**The Kyoto Protocol** was adopted at the UNFCCC’s third conference in December of 1997 and is “considered to be the most far-reaching agreement on environment and sustainable development ever adopted.” It gives legal bite to the UNFCCC’s teeth. The Protocol, which has been signed and ratified by 176 countries and one regional economic integration organization (but not the United States), entered into force in February, 2005. Under the Kyoto Protocol, signatories are divided into two groups with different responsibilities. One group, called Annex I signatories, consists of developed nations (e.g., Member States of the EU) that are legally bound to reduce GHGs (not only carbon dioxide but also methane, nitrous oxide, hydro fluorocarbons, per fluorocarbons and sulphur (sulfur) hexafluoride) between 2008 and 2012 with an overall reduction of five percent of 1990 levels. The other group of signatories, called non-Annex I signatories, consists of developing countries (e.g., India, China and Brazil) that are responsible for monitoring and reporting their emissions but are not required to legally reduce emissions. Each Annex I signatory is assigned an emissions reduction target via a quota of emissions allowances called Assigned Amount Units (AAUs). To reach its emissions reduction target and remain within its AAUs, each Annex I signatory can either reduce domestic emissions (the ultimate goal) or utilize three types of “flexible plans” to account for emissions: emissions trading (imposes an overall limitation on releasing emissions while at the same time allowing for trade of the right to release emissions by the companies included in the scheme), Joint Implementations (JIs) (refers to an Annex I signatory’s receipt of emissions credits for investing in an emissions reduction project in another Annex I signatory), and Clean Development Mechanisms (CDMs) (refers to receipt by an Annex I signatory of emissions reduction credit for investing in an emissions reduction project in a developing country with no emissions reduction target of its own, i.e., a non-Annex I signatory). Penalties for non-compliance under the Kyoto Protocol include multiplying excess emissions by 1.3 and losing the privilege to engage in emissions trading the next year. See Kyoto Protocol to UNFCCC, Dec. 10, 1997, 37 I.L.M. 22. [http://unfccc.int/kyoto\\_protocol](http://unfccc.int/kyoto_protocol) Article 2.

Environmentalists dismiss the EU Proposal as an insufficient measure to reduce aviation-related carbon dioxide emissions for many other reasons. For example, environmentalists caution that the projected increases in the number of flights will eradicate improvements in fuel efficiency.<sup>29</sup> They strongly advocate the inclusion of more stringent quotas so the industry can address global warming and develop into a sustainable industry.

To adequately control aviation emissions, environmentalists press for a stronger cap on allowances and one hundred percent auctioning of allowances. Further, instead of limiting a solution to carbon dioxide emissions, environmentalists insist that non-carbon dioxide pollutants be restricted as well. Because non-carbon dioxide emissions, *i.e.*, nitrous oxide, have particular in-flight harmful effects, restrictions on the “other” emissions should focus not only on take-off and landing emissions but also on in-flight emissions. In any event, environmentalists call for the incorporation of all departing and landing flights into the EU ETS at the same start date, preferably 2010.

Environmentalists denounce ICAO’s inaction and the position of its supporters, including the U.S. According to Joel Vieira of Transport and Environment, “[a]fter a shameful decade of obstruction and inaction, ICAO must be stripped of its environmental responsibility.”<sup>30</sup>

Calling ICAO’s position a “failure ... because it chooses to ignore the very significant growth in greenhouse gas emissions by airlines and the clear need for taxes, emissions changes or emissions trading schemes,” environmentalists unquestionably support the EU’s motivation and attempt to control aviation-related carbon emissions. However, the EU Proposal is not strong enough for environmentalists who would prefer the aviation industry to be held to more stringent, more immediate restrictions.



### Recent Articles:

*Global Climate Change: Australian Law and Policy* (LexisNexis/Butterworths, 2008), by David Hodgkinson

“The EU Emission Trading Scheme and Aviation,” paper presented by Stephen R. Stegich at the 16<sup>th</sup> Annual Aero-Engine Cost Management Conference, San Antonio, Texas, February 6-7, 2008

“The U.S. Position And Outlook On The Environment And Aviation Emissions”, presented by Stephen R. Stegich at the 2nd Annual Air law Conference, London, UK, May 28, 2008

*Strategies for Airlines on Aircraft Emissions and Climate Change: Sustainable, Long-Term Solutions* (The Hodgkinson Group, 2007), by David Hodgkinson

“Whither Carbon Trading? Strategies for Airlines on Aircraft Emissions and Climate Change after the ICAO Assembly,” paper presented by David Hodgkinson at the Centre for Transportation Studies, Sauder School of Business, University of British Columbia, Vancouver, October 2007

### Looking Ahead: What To Expect

Clearly, the EU, the U.S., the aviation industry and environmentalists agree that aviation-related carbon emissions have a harmful impact on the global climate but no one can yet agree on the severity of the impact or on a global solution to control the problem. ICAO has failed to act but the world will not necessarily wait for ICAO to implement a plan to reduce aviation emissions.

Looking ahead to the 2012 expiration of the Kyoto Protocol, attendees of the December 2007 United Nations climate change conference held in Bali agreed to negotiate a post-Kyoto Protocol international “climate regime” among the parties to the United Nations Framework Convention on Climate Change (UNFCCC) at the next summit which will be held in Copenhagen in 2009.<sup>31</sup>

The EU ETS Phase II will also expire in 2012 and the EU has already begun drafting Phase III.<sup>32</sup> The EU’s post-2012 Phase III Proposal strives to “strengthen, expand and improve” the existing EU ETS and to reduce EU emissions by at least twenty percent of 1990 levels by 2020. The structure of Phase III of the EU ETS will differ greatly from the structure of Phase I and II. Under the Post-2012 Proposal, the EU will have one EU-wide cap on emissions rather than twenty-seven national caps. Like the method of allocation of allowances for airlines under Phase II, allowances under Phase III will be allocated pursuant to an EU-wide harmonized method.

Other changes include a marked increase in the number of allowances available for auction (due to a marked decrease in the number of allowances allocated for free), the introduction of two new industries (producers of aluminum and ammonia) and the introduction of two new gases (nitrous oxide and per fluorocarbons).

Unlike the EU, the U.S. government has not demonstrated a clear commitment to reduce carbon emissions. Senate Bill 2191 entitled “America’s Climate Security Act,” which was introduced last fall by Senators Lieberman and Warner, was defeated in June, 2008.<sup>33</sup> The international forum has criticized President Bush’s inaction on climate change issues, although President Bush did pledge this July, along with other G-8 leaders to “move toward a low-carbon society’ by cutting greenhouse gas emissions in half by 2050.”<sup>34</sup> Unlike the action being taken in the EU, *i.e.*, promulgating a plan to control and reduce aviation emissions, the U.S. remains in the investigation phase of the problem.

The world’s eye is on the upcoming U.S. Presidential election this November. Candidates for U.S. President, John McCain and Barack Obama, pledge to address global warming issues. Senator McCain supports a cap and trade system that would reach sixty percent below 1990 levels by 2050 and increase over time the number of auctionable permits.<sup>35</sup> Senator McCain also supports developing greater nuclear energy opportunities. Senator Obama supports reducing greenhouse gases through a cap and trade system to eighty percent below 1990 levels by 2050 with one hundred percent auctioning of allowances.<sup>36</sup> It has been observed, however, that although both candidates advocate change, both have missed crucial votes in the Senate to effectuate change and perpetuate existing climate control advances.<sup>37</sup> What the policy of the successful presidential candidate will be when he takes office remains to be seen.

Although the U.S. has not implemented any plan to reduce carbon emissions, the FAA is in the process of developing NextGen, a plan of new concepts and capabilities based on satellite-based air traffic management and communications.<sup>38</sup> NextGen, which will allow point-to-point flying and eliminate the back-up of inbound and outbound aircraft, is estimated to reduce greenhouse gas emissions by fifteen percent.

Thus, the world and the aviation industry, in particular, are continuing out of necessity to investigate and implement solutions to control and reduce excessive concentrations of greenhouse gases in the atmosphere. The EU continues to administer its ETS, signatories to the Kyoto Protocol seek a post-Kyoto regime for combating climate change, and the U.S., with the election of a new President and advancements in technology, will make a more focused commitment to combating the climate change crisis.

## Conclusion

It is undisputed that reducing carbon dioxide emissions is a desirable and necessary global concern. How to achieve that reduction is a matter of global debate. On the one hand, the U.S. and the airline industry are willing to wait for ICAO to develop a plan to reduce aviation-related carbon emissions. On the other hand, the EU, perceiving the climate crisis to be an immediate threat, developed its own plan and seeks to take action on its own, without waiting for ICAO to act and without the agreement of the international community. Although environmentalists agree with the EU's intent, the Proposal is viewed as too weak to save the environment.

Despite all this, the global debate about the EU's intention to incorporate the aviation industry into its ETS will continue until one of two things happens: (1) the EU abandons the plan and waits for ICAO to act; or (2) the EU implements its plan and risks facing trade sanctions and charges of violating international law by the international aviation community. ✎

<sup>1</sup> For more information on: (1) the EU ETS, see sidebar on page 4; (2) world action with regard to combating the climate crisis, see sidebar on pages 5 and 7; (3) A general explanation of carbon emissions and their effect on climate change, see sidebar on page 2-3.

<sup>2</sup> Adopted January 23, 2008 and designed to amend the current EU ETS Directive (Directive 2003/87/EC, as amended by Directive 2004/101/EC).

<sup>3</sup> See, generally, European Parliament Post-Briefing, 12-15 Nov. 2007, *Clear Skies Ahead: MEPs Vote to Curb Airline Emissions by Including Them in European Trading Scheme*, Nov. 13, 2007 ([http://www.europarl.europa.eu/news/expert/infopress\\_page/062-12900-316-11-46-910-20071109IPR12781-12-11-2007-2007-false/default\\_en.htm](http://www.europarl.europa.eu/news/expert/infopress_page/062-12900-316-11-46-910-20071109IPR12781-12-11-2007-2007-false/default_en.htm)).

<sup>4</sup> Press Release, Europa Rapid, *Environment: Commission Welcomes Council Agreement on Aviation ...*, Dec. 20, 2007 (<http://europa.eu/rapid/pressReleasesAction.do?reference=IP/07/1988&format=HTML&aged=0&language=EN&guiLanguage=en>).

<sup>5</sup> BBC News, *EU Includes Aviation in CO<sub>2</sub> Curbs*, July 8, 2008 (<http://news.bbc.co.uk/1/hi/world/europe/7495567.stm>).

<sup>6</sup> *EU Parliament Discusses Extending Emissions Trade to Aviation*, Nov. 12, 2007 (<http://www.chinaview.cn>).

<sup>7</sup> *Including Aviation in the EU Emissions Trading Scheme – Joint NGO Statement on Key Improvements*, June 2007 (NGO), p. 2; AFP, *EU Lawmakers Force CO<sub>2</sub> Caps on Airlines*, July 8, 2008 ([http://findarticles.com/p/articles/mi\\_kmaf/is\\_200807/ai\\_n27896941](http://findarticles.com/p/articles/mi_kmaf/is_200807/ai_n27896941)).

<sup>8</sup> Janelle Veno, *Flying the Unfriendly Skies: the European Union's New Proposal to Include Aviation in Their Emissions Trading Scheme*, *Journal of Air Law & Commerce*, Vol. 27, 2007, p. 677.

<sup>9</sup> Department for Environment, Food and Rural Affairs, Dep't for Transp., *Consultation on the Commission's Proposal to Include Aviation in the European Union Trading Scheme*, Mar. 2007, p. 11.

<sup>10</sup> Paul Eccleston, *MEPs Vote to Increase Cost of European Flights*, *Telegraph News*, July 8, 2008 (<http://www.telegraph.co.uk/news/newstopping/politics/2270516/MEPs-vote-to-increase-cost-of-European-flights.html>).

<sup>11</sup> Reuters, *EU Body Adopts Strict Rules for Airline Emissions*, Nov. 13, 2007.

<sup>12</sup> Madhu Unnikrishnan, *Aviation Daily*, Dec. 20, 2007 ([www.aviationweek.com](http://www.aviationweek.com)).

<sup>13</sup> *Aviation and Emissions Trading*, Oct. 12, 2007 (<http://www.euractiv.com/en/transport/aviation-emissions-trading/article-139728>).

<sup>14</sup> Matthew L. Wald and James Kanter, *Plan to Cut Jet Pollution Is Approved In Europe*, *N.Y. Times*, Nov. 14, 2007.

<sup>15</sup> Environment News Serv., *Aviation Industry Rejects Europe's Climate Emissions Trading System*, Oct. 2, 2007 (Environment News Serv.); Andrzej Zwaniecki, *Aviation Emissions Best Tackled Through Cooperation*, *Innovation*, Aug. 3, 2007 (<http://www.america.gov/st/washfile-english/2007/August/20070803112519saikceinawz0.2952082.html>); Kyoto Protocol to UNFCCC, Dec. 10, 1997, 37 I.L.M. 22 (Kyoto Protocol), *Negotiating the Protocol* ([http://unfccc.int/kyoto\\_protocol/items/2830.php](http://unfccc.int/kyoto_protocol/items/2830.php)), Article 2.2.

<sup>16</sup> Air Transp. Ass'n, *European Aviation Emissions Trading Scheme Is Illegal*, July 8, 2008.

<sup>17</sup> *IATA Welcomes UN Guidelines on Emissions Trading*, Feb. 21, 2007 (<http://www.asiatraveltips.com/print07.cgi?file=212-EmissionsTrading.shtml>).

<sup>18</sup> Andreas Hardeman, *A Common Approach to Aviation Emissions Trading*, *Air & Space Law*, Vol. XXXII/1, Feb. 2006, p. 11.

<sup>19</sup> European Fed'n for Transp. and Env't, *EU Emissions Trading Plan Set for Takeoff Despite Transatlantic Rift*, Sept. 28, 2007.

<sup>20</sup> Zwaniecki, *supra* n. 15.

<sup>21</sup> Air Cargo News, *IATA Strongly Criticise ETS Vote, July 15, 2008* ([http://www.aircargonews.net/article.asp?art\\_id=3503](http://www.aircargonews.net/article.asp?art_id=3503)); AP, *EU Adds Airlines to Plan to Reduce Emissions*, July 8, 2008.

<sup>22</sup> *Airlines Call For More Sensible Carbon-Cutting Scheme*, June 6, 2007 ([www.euractive.com](http://www.euractive.com)).

<sup>23</sup> The International Aviation Transportation Association (IATA) and the Air Transport Association (ATA) favor an emissions trading scheme through ICAO. *IATA Welcomes UN Guidelines on Emissions Trading*, *supra* n. 17; Environment News Serv., *supra* n. 15; Veno, *supra* n. 18, pp. 682-83.

<sup>24</sup> Jay Boehmer, *EU to Limit Airlines' Emissions*, July 21, 2008; Dan Milmo, *We'll Fight You All the Way, Airlines Warn EU Over Carbon Trading Plans*, Nov. 19, 2007 (<http://www.guardian.co.uk/business/2007/nov/19/theairlineindustry.carbonemissions>).

<sup>25</sup> *Aviation and Emissions Trading*, *supra* n.13; Pete Harrison, *Airlines Protest at Cost of EU's Emissions Vote*, Reuters, May 27, 2008. Both British Airways and Air France have voiced concern about the cost of the EU ETS for aviation. *Id.*; Reuters, *Airline Inclusion in CO<sub>2</sub> Scheme Unfair*, June 9, 2008.

- <sup>26</sup> Micheline Maynard, *The Wild Green Yonder*, N.Y. Times, July 17, 2008; Toby Procter, *Clipping the Wings of Aviation*, Mar. 12, 2008; *ILA 2008: Embraer's Simple Fixes to Help Save the Planet*, (<http://www.flightglobal.com/articles/2008/05/27/224164/ila-2008-embraers-simple-fixes-to-help-save-the-planet.html>); Adrian Schofield, *Industry Leaders Slam Emissions Policies*, Aviation Daily, July 21, 2008; Gregory Polek, *Embraer Goes Green with ECO*, May 21, 2008 (<http://www.ainonline.com/news/single-news-page/article/embraer-goes-green-with-eco/>). Embraer has engaged in many environmental projects and initiatives and “participates in projects dedicated to solid waste recycling, water and energy consumption reduction, boiler and heater retrofitting with natural gas instead of fuel oil to reduce emissions, reforestation and other programs.” *Id.*
- <sup>27</sup> Yochi J. Dreazen, *U.S. Launches Alternative-Fuel Puch Dependence on Oil Seen as too Risky; B-1 Takes Test Flight*, Wall St. Journal, May 21, 2008; Federal Aviation Admin. *Fact Sheet: Commercial Aviation Alternative Fuels Initiative* ([www.faa.gov/news/fact\\_sheets/news\\_story.cfm?newsId=10112](http://www.faa.gov/news/fact_sheets/news_story.cfm?newsId=10112)).
- <sup>28</sup> Reuters, *EU Aims to Straighten Air Routes to Cut CO<sub>2</sub>*, June 26, 2008.
- <sup>29</sup> James Kanter, *EU Moves to Reduce Aircraft Emissions*, Int'l Herald Trib., Nov. 13, 2007.
- <sup>30</sup> Stephanie Switzer, *US Says European Aviation Emissions Trading Scheme To End Up As WTO Dispute*, Oct. 11, 2007 (<http://www.worldtradelaw.net/community/index.php?q=node/267>).
- <sup>31</sup> Press Release, Europa Rapid, *Climate Change: EU Welcomes Agreement to Launch Formal Negotiations on a Global Climate Regime for Post 2012*, Dec. 15, 2007 (<http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/07/588&format=HTML&aged=0%3Cuage=EN&guiLanguage=en>).
- <sup>32</sup> Press Release, Europa Rapid, *Questions and Answers on the Commission's Proposal to Revise the EU Emissions Trading Scheme*, Jan. 23, 2008 (<http://europa.eu/rapid/pressReleaseActio.do?reference+MEMO/08/35&format=HTML>).
- <sup>33</sup> See Official Website of Senator Joe Lieberman (<http://lieberman.senate.gov/issues/globalwarming.cfm>); see also Madhu Unnikrishnan, *Lieberman-Warner Climate Bill To Include Aviation*, Aviation Daily, Feb. 1, 2008 (<http://www.aviationweek.com/aw/generic/story.jsp?id=news/LIEB02018.xml&headline=Lieberman-Warner%20Climate%20Bill%20To%20Include%20Aviation&channel=comm>).
- <sup>34</sup> Sheryl Gay Stolberg, *Richest Nations Pledge to Halve Greenhouse Gas*, N.Y. Times, July 9, 2008.
- <sup>35</sup> Grist, *Speech, Speech: Text of McCain Climate Speech*, May 12, 2008.
- <sup>36</sup> Official Website, Barack Obama for President (<http://my.barackobama.com/page/content/newenergy>).
- <sup>37</sup> Thomas L. Friedman, *Eight Strikes and You're Out*, N.Y. Times, Aug. 12, 2008.
- <sup>38</sup> Aaron Karp, *Coming to America, Air Transport World*, May 2008.

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