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**The Current State of Affairs Addressing Climate Change:  
Negotiating a New Global Climate Treaty**



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The Current State of Affairs Addressing Climate Change: Negotiating a New Global Climate Treaty



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.

Published quarterly, each edition of Aviation and Climate Change – Law & Policy is not an opinion or position, but 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. It is not a legal opinion and neither provides legal advice for any purpose nor creates the existence of an attorney-client relationship.



The topics covered in previous editions of Aviation and Climate Change – Law & Policy have included: the incorporation of the aviation industry into the EU's existing Emissions Trading Scheme (ETS) and Australia's proposed ETS; industry and governmental action in response to climate change issues; important deadlines and requirements relating to the incorporation of the aviation industry into the EU ETS; and, discussion on sectoral agreements with particular emphasis on those proposed by the aviation industry.

This edition of the Newsletter provides an update on the following issues: global negotiations seeking to achieve a successor agreement to the Kyoto Protocol, including the results of the recent Copenhagen Conference and the different proposals discussed at the conference; the US's endeavors to regulate GHG emissions; the EU ETS's incorporation of the aviation industry; and, progress in seeking to utilize biofuels. The next edition of the Newsletter will include a discussion of insurance issues arising out of the climate crisis.

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## The Current State of Affairs Addressing Climate Change: Negotiating a New Global Climate Treaty

Nations of the world, industry leaders, non-governmental agencies and individuals continue to tackle the issue of climate change and to attempt to reduce man-made (anthropogenic) emissions, as demonstrated at the United Nations Climate Change Conference held 7-18 December 2009 in Copenhagen, Denmark (Copenhagen Conference). The impact of anthropogenic emissions appears to be even more damaging to the earth's climate than previously estimated: the Massachusetts Institute of Technology (MIT) researchers who previously predicted a temperature rise of slightly over 4 degrees Celsius by 2100 have more than doubled their prediction to 9 degrees Celsius.<sup>1</sup> The researchers attributed their predicted temperature rise adjustment to two factors: (1) global greenhouse gas (GHG) emissions are greater than expected, and (2) absorption of CO<sub>2</sub> by the oceans is far less than expected.<sup>2</sup> The Intergovernmental Panel on Climate Change (IPCC) recently updated its data and found that the aviation industry accounted for 4.9% of man-made climate impacts in 2005, substantially more than the 3% figure it last released and more than double the 2% figure often cited by the aviation industry.<sup>3</sup>

Many nations are attempting to control the GHGs emitted by their industries but it remains unclear whether aviation's contribution can be sufficiently reduced or indeed capped on a world-wide basis. Although the International Civil Aviation Organization (ICAO), the entity charged under the Kyoto Protocol with the responsibility to regulate international aircraft emissions, recently announced its proposal to reduce GHGs, the aviation industry also announced its own proposal.

All of the different proposals came together at Copenhagen, where the original intent of the participants was to establish a successor agreement to the Kyoto Protocol. However, when world leaders,

including US President Barack Obama, met in November 2009 at the Asian Pacific Economic Cooperation Forum, it was agreed that expectations for Copenhagen would be reduced to a “politically-binding” agreement, not a fully ironed-out, legally-binding agreement, which the leaders hoped they could achieve during a subsequent summit.

Clearly, the need to address anthropogenic emissions and their effect on global warming are among the most pressing issues facing the world today. Whether the world community is prepared to make the sacrifices necessary to implement a legally-binding accord to reduce GHG emissions still remains to be seen.

### The “Copenhagen Accord”

World leaders met at the Copenhagen Conference and attempted to negotiate a successor agreement to the Kyoto Protocol. The result of these negotiations was the “Copenhagen Accord” (Accord) achieved by the US, China, India, Brazil and South Africa. The Accord, a 12-paragraph document, is not a legally-binding agreement to reduce GHG emissions. Rather, the Accord is a statement of intention which merely commits individual nations to act on their own to address climate change and provides a “goal of limiting the global temperature rise to 2 degrees Celsius above pre-industrial levels by 2050.”<sup>4</sup>



Many nations, individuals and environmental groups have criticized the Accord because it failed to include not only mid-term or long term GHG reduction targets for both industrialized and developing nations, but it also failed to set a goal for achieving a legally-binding successor agreement to the Kyoto Protocol sometime in 2010. Although few of the 193 attending nations favored the Accord, nearly all of the attending nations agreed to “take note”<sup>5</sup> of the Accord.

The Accord also included a “system for monitoring and reporting progress toward ... national pollution reduction goals,” representing an enormous compromise between the US (which wanted full transparency) and China (which wanted no monitoring and reporting oversight).<sup>6</sup> Another key aspect of the Accord was the commitment by industrialized nations to provide \$100 billion to assist developing countries “adapt to the impacts of climate change” and to shift to sources of energy that emit less GHGs.<sup>7</sup>

The extremely contentious nature of the Copenhagen negotiations and the weakness of the Accord have cast doubt among many as to whether the current United Nations Framework Convention on Climate Change (UNFCCC) system for addressing global climate change will actually achieve a successor agreement to the Kyoto Protocol. At this point, there exists no legally binding successor agreement and no consensus to achieve such an agreement in 2010. The next UNFCCC Climate Change Conference is scheduled to be held in Mexico City, Mexico, in November 2010. In the interim, the EU has the only legally-binding GHG emissions reduction system.

### The United States

Although US Legislators promised to address climate change in 2009 and endeavored to enact legislation to compel US industries to reduce and pay for generating emissions, the US remains without climate change legislation.

### *The US House of Representatives*

The path to enacting US climate change legislation appeared to be on solid footing in mid-2009 when, on June 26, 2009, the US House of Representatives passed the Waxman-Markey Bill, formally entitled the American Clean Energy and Security Act (ACES).<sup>8</sup>

ACES addresses the climate change issue by subjecting GHG emissions to a cap-and-trade program which would nationally limit the amount of GHGs that could be emitted annually. Specifically, the Bill proposes to limit GHGs from covered sources to 3% below 2005 emission levels in 2012; 17% below 2005 levels in 2020; and, 83% below 2005 levels in 2050.

Some of the key provisions of the Bill include:

(1) The requirement that electric utilities meet 20% of their demand through renewable energy sources and energy efficiency by 2020;

(2) The investment of \$190 billion in new clean energy technologies and energy efficiency (\$90 billion for new investments by 2025, \$60 billion for energy sequestration – capturing and storing energy emissions to prevent them from entering the atmosphere, \$20 billion for the development of electric and other advanced technology vehicles, and \$20 billion for basic scientific research and development);

(3) Mandates for new energy savings standards for buildings, appliances, and industry; and

(4) Protection for consumers from energy price increases.

The following compromises were made to clear the House vote:

(1) The addition of a provision to the Bill providing the Department of Agriculture with oversight over forestry and agricultural “offsets” (projects to reduce or sequester GHG emissions in uncapped sectors of the economy);

(2) New language that prevents the EPA from using indirect land-use changes attributable to converting food crops to biofuel crops when the EPA analyzes the GHG intensity of those biofuels for a period of 5 years (with future methodologies for analyzing the GHG intensity of those biofuels to be based on a study released by the National Academy of Sciences and agreed to by the EPA Administrator and the Secretary of Agriculture);

### **Operator Deadlines for EU ETS Compliance**

#### 2 August 2009:

Original deadline for the European Commission (EC) to determine its historical aviation emissions figure (the annual average of CO<sub>2</sub> emissions for the years 2004 through 2006). Aircraft operators will be required to reduce emissions to 97% of historical emissions from January 1, 2012 to December 31, 2012 (with a further reduction to 95% from January 1, 2013 to December 31, 2020). Although the EC approximately met its original deadline, industry challenges to the figure, which failed to include emissions from running auxiliary power units and other “on-ground” emissions, resulted in the EC’s reevaluation of the figure.

#### 22 August 2009:

Publication of the EC’s amended list of administering Member States in the Official Journal of the European Union, allowing operators first appearing on this list 11 weeks to submit Monitoring Plans unless subject to a deadline imposed by the operator’s administering Member State.

#### 31 August 2009:

Original deadline for aircraft operators to submit their mandatory Emissions Monitoring Plan to their administering Member State. Reportedly, the following Member States adhered to this original deadline: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Ireland, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, and Spain.

Original deadline for aircraft operators seeking to apply for free CO<sub>2</sub> emissions allowances for the first and second trading periods (2012-2020) to submit their Benchmarking Plan to monitor their tonne-kilometre emissions usage. Free allowances will be allocated to only those operators that have submitted their Benchmarking Plan and participated in the monitoring year (2010). ↓

(3) Incorporation of provisions to impose, starting in 2020, a border adjustment charge on energy-intensive goods imported from countries without emission caps comparable to the US cap (unless the President determines the charge is not in the national interest and Congress passes a resolution in agreement);

(4) A provision allowing small petrochemical refiners to receive .25% of emissions allowances between 2014-2026;

(5) Language with restrictions on over-the-counter energy derivatives;

(6) Revision of allocation of emission allowances to local distribution companies to provide that no utility will receive more emission allowances than it needs to meet the direct and indirect costs of complying with the Bill's emissions cap;

(7) Provisions for local distribution electric companies that deliver less than 4 million megawatt hours of electricity annually to receive .5% of emission allowances between 2012-2025 and slightly fewer allowances between 2026-2029;

(8) Provisions directing the EPA, in consultation with the Secretary of Transportation, to establish national transportation GHG reduction goals.

Although the Bill is significant because it represents the "first time either house of Congress had approved a bill meant to curb the heat-trapping gases scientists have linked to climate change,"<sup>9</sup> the narrow passage of the Bill has created doubt about the extent of actual support for US climate change legislation. Indeed, ACES passed by a vote of 219 to 212 with 8 Republicans voting in favor and 44 Democrats voting against the Bill.

The aviation industry has expressed criticism of the Bill. President and CEO of the Air Transport Association (ATA), James C. May, cautions that enactment of ACES will result in an "onerous fuel tax on the airline industry .... Fuel costs will skyrocket, hindering the ability of US airlines to continue to improve their environmental performance through fleet modernization and technological advances, weakening their ability to compete in the global markets."<sup>10</sup> Unlike the EU ETS which affects airlines directly, airlines would be indirectly affected by ACES: via the extra costs passed on to airlines by the fuel producers arising out of the ACES requirement that fuel producers buy credits for the emissions from the transportation fuel that the producers sell to airlines.

### **Operator Deadlines for EU ETS Compliance** *(continued)*

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#### 30 September 2009:

New deadline for submitting Monitoring and optional Benchmarking Plans to Italy and Greece.

#### 2 October 2009:

Announcement by the EC that it would extend its deadline for determining the historical aviation emissions figure until mid-2010.

#### 13 October 2009:

New deadline for submitting Monitoring and optional Benchmarking Plans to Bulgaria.

#### 15 October 2009:

New deadline for submitting Monitoring and optional Benchmarking Plans to Sweden.

#### 20 October 2009:

New deadline for submitting Monitoring and optional Benchmarking Plans to Germany.

#### 31 October 2009:

New deadline for submitting Monitoring and optional Benchmarking Plans to Latvia.

#### 12 November 2009:

New deadline for submitting Monitoring Plans to the UK.



Although ACES did not formulate its own plan for emissions reduction, it included an amendment that would promote the development of a global framework to regulate GHG emissions from civil aviation through ICAO.

Environmental groups have criticized the Bill for its “weaknesses”. Greenpeace has expressed particular dissatisfaction with the Bill’s emission reduction targets (which Greenpeace categorizes as far less than science demands) and the giveaways and preferences (which Greenpeace opines will result in the construction of new coal-fired power plants).<sup>11</sup>

Even though the Bill is not unanimously favored, recent studies on ACES suggest that passage of the Bill could reduce carbon emissions while increasing revenue and imposing relatively little cost on each US household. For example, the Congressional Budget Office (CBO) estimates:

(1) “Enacting the legislation would increase revenues by \$873 billion over the 2010-2019 period and would increase direct spending by \$864 billion over that 10-year period;”

(2) Allowances would cost \$15 per ton of CO<sub>2</sub> emissions in 2011 and rise to about \$26 per ton in 2019; and

(3) Enacting the legislation would result in an increase of \$175 a year in energy costs to the average American household.<sup>12</sup>

The US Environmental Protection Agency (EPA), having conducted its own analysis of ACES utilizing emission allowance prices of \$13/ton in 2015 and \$16/ton in 2020, found that the average household cost attributable to passage of the current form of the legislation would be between \$80 and \$111 per year in 2020.<sup>13</sup> However, based on its review of the CBO analysis, the American Petroleum Industry (API) estimates that climate change legislation may raise the following costs: (1) gasoline by up to 77 cents per gallon; (2) jet fuel by up to 83 cents per gallon; and (3) diesel fuel by up to 88 cents per gallon.<sup>14</sup> ACES is currently before the US Senate awaiting (for some time) debate and vote.

### **The US Senate**

Members of the US Senate likewise sought to enact US climate change legislation in 2009. On September 30, 2009, Senator John Kerry, Chair of the Foreign Relations Committee, and Senator Barbara Boxer, Chair of the Environment and Public Works Committee, unveiled a draft of a climate change bill entitled The

### **Operator Deadlines for EU ETS Compliance** *(continued)*

#### 4 December 2009:

Iceland, Liechtenstein and Norway incorporated the Aviation Directive into their legislation.

#### 31 December 2009:

Deadline for administering Member States to accept or reject the submitted Emissions Monitoring Plans and Benchmarking Plans. New deadline for submitting optional Benchmarking Plans to the UK.

#### 1 January 2010:

Commencement of the monitoring year. As specified in the Aviation Directive, 2010 is the “monitoring year” for the aviation industry for the first and second trading periods to give the operators a “test drive” in achieving compliance with the EU ETS and for the future determination of the allocation of free allowances.

#### 1 February 2010:

Annual publication date (commencing in 2010) of the list of administering Member States.

#### 2 February 2010:

Deadline for each Member State to transpose the Aviation Directive into its national law.

#### 31 March 2011:

Deadline for aircraft operators to submit their verified 2010 tonne-kilometre data to their administering Member States to receive free allowances. Annual deadline (commencing in 2011) for submission of verified CO<sub>2</sub> emissions data to administering Member States.



Clean Energy Jobs and American Power Act.<sup>15</sup> Some of the highlights of the Act include: (1) funding for research and development of new carbon capture and sequestration technology, advanced nuclear technology and nuclear waste management; and (2) investing in low-carbon power generation, including natural gas. The Act provides reduction targets of 20% by 2020 and 80% by 2050 from 2005 levels. To accomplish the reduction targets, the Act includes a Pollution Reduction and Investment system that would cover less than 2% of American businesses, *i.e.*, only the largest US polluters. The Environment and Public Works Committee voted on November 5, 2009 to report the Act out of Committee and onto the Senate floor for debate during a Republican Committee Member boycott of the vote. (Committee rules require the presence of two minority members to conduct business, including the consideration of amendments to the Act, but only a majority vote to report a bill from Committee.) In any event, 2009 ended without the passage of US climate change legislation.

### ***The US Environmental Protection Agency (EPA)***

Although Congress has been unable to promulgate US climate change legislation, the EPA has been active in accordance with the US Supreme Court decision finding that the EPA has the power to regulate CO<sub>2</sub> and other GHG emissions as air pollutants under the Clean Air Act (CAA).<sup>16</sup> On June 30, 2009, the EPA announced that it would grant California's waiver to enforce the State's GHG emissions standards for new motor vehicles beginning with the 2009 model year. The EPA's Decision (printed in the Federal Register on July 8, 2009), not only directly impacts California, but also thirteen other states and the District of Columbia, which had adopted laws based on California's law. As a direct result of the EPA's Decision, the State of California petitioned the Ninth Circuit Court of Appeals to voluntarily dismiss California's pending lawsuit against the world's six largest automakers (GM, Ford, Chrysler and the North American outlets of Toyota, Honda and Nissan) for their contribution to GHG pollution in the State.

Several notable announcements were made by the EPA in September 2009. On September 15, 2009, in accordance with Section 202 of the CAA and together with the Department of Transportation, the EPA released a proposal for auto standards and mandatory fuel economy which would take effect with model year 2012.<sup>17</sup> The proposal includes a fleet wide corporate average fuel economy of 35.5 miles to the gallon by 2016. The CO<sub>2</sub> limit under the proposal would reach an average of 250 grams per mile per vehicle in 2016.

### **Operator Deadlines for EU ETS Compliance** *(continued)*

#### 30 June 2011:

Deadline for Member States to submit free allowance applications to the European Commission.

#### 30 September 2011:

Deadline for the European Commission to determine the benchmark number for calculating and allocating free allowances.

#### 31 December 2011:

Deadline for administering Member States to publish the allocation of free allowances to each aircraft operator.

#### 01 January 2012:

Effective date for incorporating aviation into the EU ETS – commencement of the first trading period for the aviation industry.

#### 28 February 2012:

Deadline for allocation of allowances by Member States to aircraft operators.

#### 31 December 2012:

Deadline for aircraft operators to submit monitoring plans for the second trading period commencing January 1, 2013 and to advise of changes in operating procedures or methodology.

#### 1 January 2013:

Commencement of the second trading period for the aviation industry and Phase III of the EU ETS.

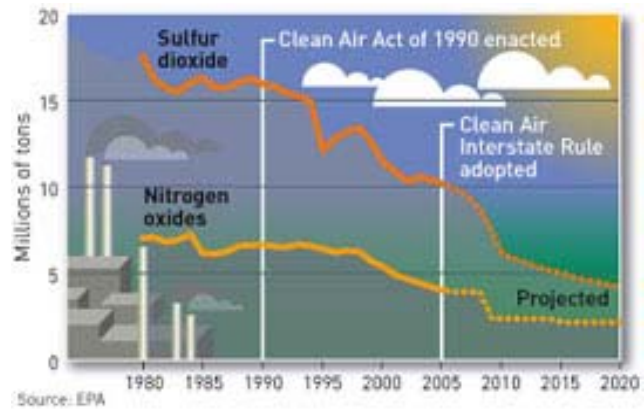
#### 30 April 2013:

Annual deadline (commencing in 2013) for aircraft operators to surrender allowances equal to their prior year's CO<sub>2</sub> emissions or risk penalties.



On September 22, 2009, the EPA announced its Final Rule requiring large US emitters of GHGs to commence monitoring and reporting their GHG emissions as of January 1, 2010.<sup>18</sup> The monitoring and reporting requirement, which will affect approximately 10,000 facilities, is estimated to address nearly 85 % of US GHG emissions.

On September 30, 2009, the EPA issued its proposed rule under the CAA relating to stationary sources emitting at least 25,000 tonnes of GHGs per year.<sup>19</sup> The proposed rule would require large, industrial sources to obtain construction and operating permits for their GHG emissions. It is estimated that covered facilities, responsible for approximately 70% of US GHG emissions, include makers of turbofan and turbojet airplane engines rated at more than 6,000 lbs. thrust.



On December 7, 2009, the EPA released its long-awaited final ruling that GHGs “threaten the public health and welfare of the American people”, with emissions from on-road vehicles contributing to that threat.<sup>20</sup> The EPA’s Administrator, Lisa P. Jackson, noted the finding was based “on decades of sound, peer-reviewed, extensively evaluated scientific data ... that came from around the world and from ... US scientists.”<sup>21</sup> Ms. Jackson added that the “long-overdue finding cements 2009’s place in history as the year when the United States Government began seriously addressing the challenge of greenhouse gas pollution and seizing the opportunity of clean energy reform.”<sup>22</sup>

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In further pursuit of the EPA’s regulatory powers under the CAA and pursuant to the Supreme Court decision in *Massachusetts v. EPA* clarifying those powers, the Institute for Policy Integrity filed a petition for rulemaking with the EPA seeking to have the agency “propose and adopt regulations instituting a cap-and-trade system to control emissions of greenhouse gases from fuels used in motor vehicles, nonroad vehicles, and aircraft, and to begin this process immediately.”<sup>23</sup> At least within the US, it seems that the EPA will try to do that which the US Congress is presently unable or unwilling: regulate GHG emissions and pollutants.

### **The US Judiciary**

The US Judiciary also recognized the impact of industrial emissions on the climate and the right of the public to redress that injury in 2009. On September 21, 2009, the United States Court of Appeals for the Second Circuit ruled that eight states (California, Connecticut, Iowa, New Jersey, New York, Rhode Island, Vermont and Wisconsin) along with New York City and three land trusts could proceed with their “public nuisance” suit against several large coal-burning utilities.<sup>24</sup> The Second Circuit rejected the following arguments: (1) pollution from GHGs is a “political question”; (2) the environmental groups did not have standing; (3) the environmental groups cannot assert “public nuisance” claims; and (4) public nuisance claims are preempted by the CAA. Further, the Court found that the states are experiencing “injury in fact” due to climate change and that there need not be a direct link between sources of emissions and global warming. Specifically, the decision held: (1) the claims do not present non-justiciable political questions; and (2) the plaintiffs have standing to bring their claims.<sup>25</sup>

Likewise, the Fifth Circuit reversed the District Court’s ruling that plaintiffs, owners of Gulf Coast property damaged by Hurricane Katrina, lacked standing to bring their tort-based climate claims and that the claims

presented non-justiciable political questions.<sup>26</sup> The private litigants in *Comer* asserted that the “defendants’ operation of energy, fossil fuels, and chemical industries in the United States caused the emission of greenhouse gasses (*sic*) that contributed to global warming, viz., the increase in global surface air and water temperatures, that in turn caused a rise in sea levels and added to the ferocity of Hurricane Katrina, which combined to destroy the plaintiffs’ private property, as well as public property useful to them.”<sup>27</sup> The Second and Fifth Circuit decisions are notable because both courts found that proximate causation is unnecessary to achieve standing under Article III of the US Constitution to bring these types of claims.

However, the Northern District of California recently dismissed a similar case brought by the Alaskan Village of Kivalina which claims to be threatened with extinction based on the effects of global warming due to man-made industrial emissions.<sup>28</sup> The Northern District of California ruled that the claims were based on a political question properly reserved for the legislative or executive branch of the government, and that the plaintiffs failed to demonstrate causation between their injuries and the actions of the defendants.<sup>29</sup> The decision has been docketed for appeal to the Ninth Circuit.<sup>30</sup>

### **The EU ETS**

In August 2009, the EU suffered several setbacks with respect to incorporating the aviation industry into the existing EU Emissions Trading Scheme (ETS). One setback involved numerous discrepancies in the originally published list of administering Member States.<sup>31</sup> For example, Delta Airlines and Northwest Airlines were listed separately but the two operators merged in October 2008. Due to industry and Member State objections about the original list’s inaccuracies and the need for an accurate list because aviation is being incorporated into the EU ETS on a state-by-state basis, the European Commission (EC) published a revised list on August 22, 2009.



The revisions include the addition of numerous carriers: the original list included 2,753 operators while the revised list includes 2,939 operators.<sup>32</sup> On January 3, 2010, the EU announced its publication of a provisional updated list of carriers subject to the EU ETS and that a full updated list would be published in February 2010.<sup>33</sup>

Another setback related to the methodology that Eurocontrol was employing to achieve the 2004-06 historical emissions figure for the aviation industry, which the Aviation Directive required the EC to determine by August 2, 2009.<sup>34</sup> Operators objected to the methodology Eurocontrol was using because the historical emissions figure, which was being calculated with Pagoda (the EU’s prototype environmental cockpit) figures combined with actual fuel data submitted by operators, failed to include CO<sub>2</sub> emissions from running auxiliary power units (APU) on the ground between on-blocks and off-blocks, a figure that the operators estimated to be about 1-2% of an operator’s total emissions. Thus, historical emissions were underreported and future fuel data reports that would require inclusion of APU fuel consumption would be erroneously high relative to the historical baseline. The new historical figure is expected to be formally announced in mid-2010.<sup>35</sup>

An additional setback experienced by the EU involves the August 31, 2009 deadline by which each operator was initially required to submit to its administering Member State its Monitoring Plan outlining the methodology that would be used by each operator to accurately and reliably monitor and report their emissions and payload data.<sup>36</sup> As a result of the inaccurate list of administering Member States and the imperfect methodology used in determining the historical emissions figure, the UK, which is responsible for the majority of carriers being incorporated into the EU ETS, postponed the first critical deadline for incorporating aviation into the EU ETS: the UK permitted its operators to skip the August 31, 2009 deadline for submitting their Monitoring Plans and to submit their Monitoring Plans by November 12, 2009 and their Benchmarking Plans by December 31, 2009. Several other EU Member States also postponed their deadlines including, Germany (new October 20, 2009 deadline), Italy (new September 30, 2009 deadline), Greece (new September 30, 2009 deadline) and Sweden (new October 15, 2009 deadline).<sup>37</sup> It is unclear whether any of the new deadlines have been met or whether a penalty will be imposed for strict non-compliance with the new deadlines. In view of apparent confusion, each operator would be well served to contact its anticipated administering Member State to confirm the Member State's deadlines for submission of Monitoring and, if still relevant, Benchmarking Plans.

The EU experienced yet another setback when, on September 23, 2009, the European Court of First Instance annulled the EC's decisions to reject GHG emissions plans submitted by the Polish and Estonian governments in 2006. The EC rejected the plans, asserting that they were not compatible with the Directive and reducing the total sum of emissions allowances to three-quarters of the amount that Poland proposed and half of the amount that Estonia proposed. The court found that the EC had exceeded its powers and that Member States have the right to determine allocation allowances among different economic operators. This is a significant setback because it creates doubt about the EU's ability to manage and control its ETS. On December 11, 2009, the EC issued subsequent decisions rejecting the emissions plans submitted by Poland and Estonia. The EC's Environment Commissioner, Stavros Dimas, stated that the "new decisions [took] into account the court rulings" but that the total allowances sought to be allocated by the two States to their operators remained excessive.

On December 16, 2009, the Air Transport Association (ATA) commenced litigation in the United Kingdom seeking to block the EU's inclusion of the international aviation industry into its ETS.

Joined by American Airlines, Continental Airlines and United Airlines, the lawsuit represents the first legal challenge to the EU ETS's application to international air carriers.

The ATA challenges the legality of the EU's incorporation of the aviation industry into the existing EU ETS alleging that: (1) the Aviation Directive interferes with the principal of international law concerning the exclusive sovereignty of each state over the airspace above its territory; (2) it violates Articles 1, 11, 12, 15, 24 and 44 of the Chicago Convention; and (3) it violates the Open Skies Agreement between the US and the EU and the Kyoto Protocol. Although ATA members have complied with the Aviation Directive (under protest), time is of the essence in resolving the claims because Member States are required to implement the Aviation Directive by February 1, 2010.

Despite the setbacks, the EU is pressing forward to ensure compliance with the EU's Directive. For example, in April 2009, the EC issued Decision 2009/339/EC which identifies the operator for the purposes of the EU ETS as the airline whose ICAO designator is used for the flight.<sup>38</sup> Further, in mid-2009, the EC specifically defined the ETS's exception for the business aviation community (operators emitting less than annual threshold of

10,000 tonnes of CO<sub>2</sub> or operators with less than 243 flights every 3 months) to the complex monitoring and reporting rules under the EU ETS. Under the agreement, small emitters were required to send only their reporting plans to their respective supervising national authorities by the August 31, 2009 deadline which would have signaled that the small emitters opted for the simplified procedure. However, this agreement would be subject to any new deadlines imposed by individual administering Member States. Further, it is not clear how the EC's failure to release the historical emissions figure impacts this agreement.

In October 2009, the 27 EU Member States agreed to a proposal to cut aviation's GHG emissions by 10% of 2005 levels by 2020. However, the EU expressed its preference that an agreement be reached at Copenhagen to include the aviation industry and that the "parties ... commit to work through ICAO to enable an agreement that does not lead to competitive distortions or carbon leakage [the increase of carbon emission in one area due to the reduction of carbon emissions in another area], that is agreed in 2010 and approved by 2011."<sup>39</sup> Lastly, in December 2009, Iceland, Liechtenstein and Norway, which are not Member States of the EU but which are brought together with the EU through the Agreement on the European Economic Area, agreed to incorporate the Aviation Directive into their national laws.

## The Proposals

In addition to the EU ETS and the EU's recent proposal to cut aviation emissions, President Obama, the governments of China and India, ICAO and IATA have also announced proposals.

### *President Obama*

On November 25, 2009, President Obama announced the US proposal to reduce its GHGs to 17% below 2005 levels by 2020 and 83% by 2050, similar to the target set forth by ACES. Details of how this proposal will be implemented have not been announced.

### *China*

On November 26, 2009, the Chinese government announced its proposal to reduce its carbon-intensity by 40-45% of 2005 levels by 2020. Carbon-intensity is defined as the ratio of total carbon emissions to economic output. In the US, even though emissions increased by 17.1% between 1990 and 2007 (with an increase of



## UPCOMING EVENTS

### The United Nations Framework Convention on Climate Change (UNFCCC)

The 32<sup>nd</sup> Session of the UNFCCC Convention subsidiary bodies (SB 32) will be held 31 May – 11 June 2010, in Bonn, Germany.

The 16<sup>th</sup> Session of the Conference of the Parties (COP 16) to the UN Framework Convention on Climate Change will be held in conjunction with the 6<sup>th</sup> Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol (CMP 6) 29 November – 10 December 2010 in Mexico City, Mexico.

### ICAO

ICAO Colloquium on Aviation and Climate Change, ICAO Headquarters, Montréal, Canada, 11 – 14 May 2010.

1.4% in 2007 alone), the US successfully reduced its GHG emissions intensity by 22.3% between 1990 and 2003.<sup>40</sup> The Chinese government's proposal is also without any details of how it will be monitored or implemented.

### **India**

On December 3, 2009, India announced its proposal to reduce India's carbon intensity by 20-25% of 2005 levels by 2020. Similar to the proposals announced by the US and China, no details have been released relevant to the implementation of India's proposal.

### **IATA**

On October 10, 2009, Giovanni Bisignani, Director General and CEO of the International Air Transportation Association (IATA), reiterated the industry's proposal at ICAO's meeting on climate change in Montreal. The industry plan seeks to improve fuel efficiency by an average of 1.5% by 2020, carbon neutral growth by 2020, and a 50% reduction in carbon emissions by 2050 compared with 2005 levels. Prior to the release of IATA's "industry" proposal, the Aviation Global Deal Group (AGD), comprised of international airlines, aviation industry-related companies and The Climate Group, announced its proposal earlier this year. The AGD proposal supported the equal treatment of all airlines and set forth three different "scenarios relative to 2005." One scenario called for carbon neutral growth by 2020 (so that 2020 emissions would be equal to 2005 emissions even with growth in the industry). The other two scenarios called for a 5% absolute reduction in emissions by 2020 and a 20% absolute reduction in emissions by 2020. AGD's long-term target sought to reduce emissions between 50-80% by 2050 based on 2005 levels.

### **ICAO**

During a high level meeting on October 9, 2009, ICAO's Group on International Aviation and Climate Change (GIACC) agreed on a set of emissions goals similar to those set forth in IATA's proposal. Perhaps the greatest highlight of the GIACC proposal is the ICAO endorsement to set industry targets at an international level, *i.e.*, using a global sectoral approach. While ICAO's proposal is stricter than IATA's – calling for a 2% annual improvement in fuel efficiency and an "aspirational goal" of 2% annual improvement from 2021 through 2050 – ICAO's proposal fails to include a carbon neutral goal.



## **Biofuels and Alternative Fuels**

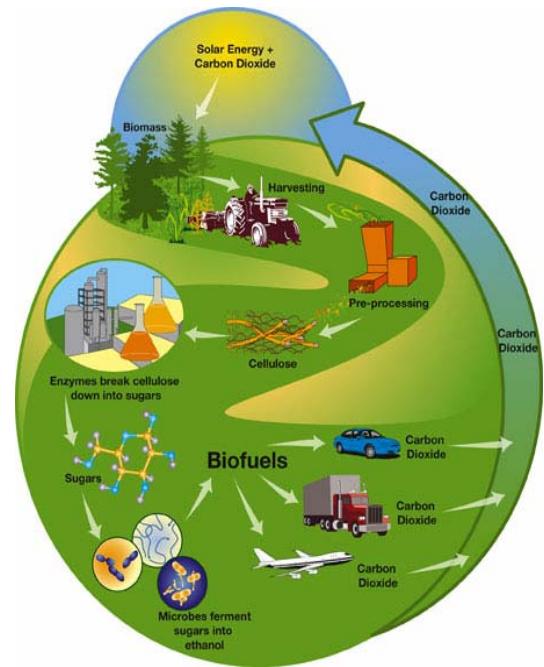
In keeping with their perseverance to reduce costs through advancements in technology, airlines and aircraft manufacturers have remained diligent in their quest to develop and utilize biofuels and alternative fuels.

### **Biofuels**

The Sustainable Fuel Users Group is an industry working group comprised of Air France, Air New Zealand, ANA, Cargolux, Gulf Air, Japan Airlines, KLM, SAS, Virgin Atlantic Airways and was recently joined by Alaska Airlines, British Airways, Cathay Pacific, TUIfly, and Virgin Blue. Boeing and Honeywell are associate members. The Group was founded to help accelerate the production of sustainable biofuels and their use by commercial aviation. In addition to research projects using algae and jatropha curcus, the Group expects to launch a

sustainability assessment of halophytes, a class of plant that thrives in a saltwater habitat.

The use of biofuels could dramatically change the industry's reliance on kerosene and reduce the industry's emissions. Air New Zealand announced astonishing results for its recent biofuel test flight: up to 1.4 tonnes of fuel and 4.5 tonnes of CO<sub>2</sub> can be saved on a 12 hour long haul flight powered by a 50:50 blend of the biofuel jatropha and traditional jet A1 fuel. Air New Zealand further reported that the biofuel offered performance improvements over jet A1 in that it has a higher net heat of combustion. However, doubt exists as to whether jatropha-based fuel could replace kerosene particularly after the global energy company BP recently abandoned a project to produce biofuel from jatropha based on studies that suggest that the crop would have to be grown in better agricultural conditions than originally thought to yield enough biofuel for production.



On November 23, 2009, KLM Royal Dutch Airlines successfully operated the first biofuel flight with passengers on board utilizing a 50:50 fuel blend with camelina.

### **Alternative Fuels**

On October 5, 2009, Qatar Airways made its first passenger flight with a natural gas fuel blend. The Rolls Royce Trent 556-equipped Airbus A340-600 aircraft flew from London-Gatwick to Doha in the State of Qatar using a 50:50 blend of synthetic gas-to-liquid kerosene (GTL) and conventional oil-based kerosene. The blended fuel burned with nearly zero sulphur dioxide emissions and far lower particulate emissions than traditional kerosene. This summer, GTL and other synthetic fuels were certified for use in commercial aviation and can now be blended up to 50% with standard petroleum based fuel. However, because natural gas is a fossil fuel, questions remain about GTL's GHGs.<sup>41</sup>

Eight US carriers have agreed to annually buy up to 1.5 million gallons of synthetic fuel for their ground service equipment at LAX. The airlines include Alaska Airlines, American Airlines, Continental Airlines, Delta Airlines, United Airlines, Southwest Airlines, UPS and US Airways. The fuel will be used to power ground and cargo-handling equipment.

### **Operations and Air Traffic Management**

Many operators and governments are making significant strides in improvements to their operations and flight management to reduce fuel consumption. Minor changes, such as reducing weight by removing magazines from seatbacks to reducing ground time with engines running and improvements in ATM to permit more direct point-to-point flights, are the low hanging fruit that can substantially reduce fuel consumption without waiting for great technological advances.

## Conclusion:

The world is very much interested in finding all possible means or methods to control emissions to address climate changes. Nevertheless, world leaders attending the UNFCCC meeting at Copenhagen failed to reach an accord on a successor agreement to the Kyoto Protocol. The various proposals that were discussed at the Conference were similar but the framework for achieving emissions reductions must still be accomplished. Given the world leaders' inability to agree on a legally-binding agreement, the EU's setbacks with its already-established ETS and the US Legislature's inability to agree on US climate change legislation, the issue remains a political quagmire without a glimpse of resolution. At the same time, the consequences of inaction are mounting as past predictions of the impact of GHG emissions appear to have been woefully underestimated. ☹



<sup>1</sup> See Chandler, D., *Climate Change Odds Much Worse Than Thought*, MIT News, May 19, 2009 (<http://web.mit.edu/newsoffice/2009/roulette-0519.html>).

<sup>2</sup> *Id.*

<sup>3</sup> See *Aviation Now Contributes 4.9% of Climate Change*, Manchester Metro Univ., May 28, 2009 (<http://www.mmu.ac.uk/news/news-items/news-detail.php?id=1066>).

<sup>4</sup> See, e.g., Broder, J., *Many Goals Remain Unmet in 5 Nations' Climate Deal*, N.Y. Times, Dec. 19, 2009.

<sup>5</sup> The phrase “take note” has been variably explained as “the lowest level of recognition, equivalent to diplomatic disdain,” *Copenhagen's Lesson in Limits*, WSJ, Dec. 20, 2009, and “shorthand for acceptance.” Revkin, A. and Broder, J., *A Grudging Accord in Climate Talks*, N.Y. Times, Dec. 20, 2009 (quoting Robert C. Orr, the United Nations Assistant Secretary General for Policy and Planning).

<sup>6</sup> Broder, J., *Many Goals Remain Unmet in 5 Nations' Climate Deal*.

<sup>7</sup> *Id.*

<sup>8</sup> See American Clean Energy and Security Act of 2009, H.R. 2454, 111<sup>th</sup> Cong. § 1 (2009) ([http://energycommerce.house.gov/Press\\_111/20090701/hr2454\\_house.pdf](http://energycommerce.house.gov/Press_111/20090701/hr2454_house.pdf)).

<sup>9</sup> See Broder, J., *House Passes Bill to Address Threat of Climate Change*, N.Y. Times, June 26, 2009

<sup>10</sup> See *Climate Bill Passes US House, Could Cost Airlines Billions*, ATW Daily News, June 30, 2009 (<http://www.atwonline.com/news/story.html?storyID=17079>).

<sup>11</sup> See *Waxman-Markey Climate Change Bill Not Strong Enough to Stop Global Warming*, Greenpeace, May 16, 2009 (<http://www.greenpeace.org/usa/news/greenpeace-waxman-markey-clim>).

<sup>12</sup> See *The Estimated Costs to Households From the Cap-and-Trade Provisions of H.R. 2454*, Congressional Budget Office, June 19, 2009 ([http://energycommerce.house.gov/Press\\_111/20090620/cbowaxmanmarkey.pdf](http://energycommerce.house.gov/Press_111/20090620/cbowaxmanmarkey.pdf)).

<sup>13</sup> See *EPA Analysis of the American Clean Energy and Security Act of 2009 H.R. 2454 in the 111th Congress*, Env't Prot. Agency, June 23, 2009 ([http://energycommerce.house.gov/Press\\_111/20090623/hr2454\\_epaanalysis2.pdf](http://energycommerce.house.gov/Press_111/20090623/hr2454_epaanalysis2.pdf)).

<sup>14</sup> See *Statement from API President Jack Gerard on CBO's Cost Estimate on the American Clean Energy and Security Act of 2009*, API, June 8, 2009 (<http://www.api.org/Newsroom/gerard-cost-estimate.cfm>).

<sup>15</sup> See *The Clean Energy Jobs and American Power Act of 2009*, S. 1733, 111<sup>th</sup> Cong. § 1 (2009) ([http://epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore\\_id=2bd98e05-883b-442e-b749-bbd04cf07d59](http://epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=2bd98e05-883b-442e-b749-bbd04cf07d59)).

<sup>16</sup> See *Massachusetts v. Env'tl Prot. Agency*, 127 S. Ct. 1438, 1447 (2007).

<sup>17</sup> See EPA, *DOT Secretary Ray LaHood and EPA Administrator Lisa P. Jackson Propose National Program to Improve Fuel Economy and Reduce Greenhouse Gases/New Interagency Program to Address Climate Change and Energy Security*, Sept. 15, 2009

(<http://yosemite.epa.gov/opa/admpress.nsf/d0cf6618525a9efb85257359003fb69d/522d0a809f6b7f9c8525763200562534!OpenDocument>).

<sup>18</sup> See EPA, *Mandatory Reporting of Greenhouse Gases - Final Rule*, 40 CFR Parts 86, 87, 89 et al., Oct. 30, 2009 (<http://edocket.access.gpo.gov/2009/pdf/E9-23315.pdf>).

<sup>19</sup> See EPA, *Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule*, 40 CFR Parts 51, 52, 70, 71, Sept. 30, 2009 (<http://www.epa.gov/nsr/documents/GHGTailoringProposal.pdf>); see also EPA, *Fact Sheet -- Proposed Rule: Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule* (<http://www.epa.gov/nsr/fs20090930action.html>).

<sup>20</sup> See EPA, *Greenhouse Gases Threaten Public Health and the Environment*, EPA Press Release, Dec. 7, 2009 (<http://yosemite.epa.gov/opa/admpress.nsf/bd4379a92ceceac8525735900400c27/08d11a451131bca585257685005bf252!OpenDocument>).

<sup>21</sup> See Administrator Lisa P. Jackson Remarks on the Endangerment Finding on Greenhouse Gases, EPA, Dec. 7, 2009 (<http://yosemite.epa.gov/opa/admpress.nsf/8d49f7ad4bbcf4ef852573590040b7f6/b6b7098bb1dfaf9a85257685005483d5!OpenDocument>).

<sup>22</sup> *Id.*

<sup>23</sup> See *Petition for Rulemaking Under Sections 211 and 231 of the Clean Air Act to Institute a Cap-and-Trade System for Greenhouse Gas Emissions from Vehicle Fuels*, Institute for Policy Integrity, N.Y.U. School of Law, July 29, 2009 ([http://www.eenews.net/public/25/11954/features/documents/2009/07/29/document\\_gw\\_01.pdf](http://www.eenews.net/public/25/11954/features/documents/2009/07/29/document_gw_01.pdf)).

<sup>24</sup> Wald, M., *States Can Sue Utilities Over Emissions*, N.Y. Times, Sept. 22, 2009.

<sup>25</sup> See *Connecticut, et al., v. American Elec. Power Co., Inc.*, Nos. 05-5104-cv, 05-5119-cv (2d Cir. September 21, 2009).

<sup>26</sup> See *Comer v. Murphy Oil*, No. 07-60756 (5<sup>th</sup> Cir. October 22, 2009).

<sup>27</sup> *Id.*

<sup>28</sup> See *Native Village of Kivalina v. ExxonMobil Corp.*, No. 08-cv-01138-SBA (N.D. Cal. September 30, 2009).

<sup>29</sup> *Id.*

<sup>30</sup> See *Native Village of Kivalina v. ExxonMobil Corp.*, No. 09-17490 (9<sup>th</sup> Cir. November 11, 2009).

<sup>31</sup> See Commission of the European Communities, *Commission Notice Pursuant to Article 18a(3)(a) of Directive 2003/87/EC -- Preliminary List of Aircraft Operators and their Administering Member States*, Feb. 11, 2009.

<sup>32</sup> See Commission Regulation (EC) No 748/2009, Aug. 5, 2009 (<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:219:0001:0094:EN:PDF>).

<sup>33</sup> See Alcock, C., *New EU Aviation Emissions Trading Scheme List Released*, AIN, Jan. 3, 2010.

<sup>34</sup> See European Parliament and Council, *Directive 2008/101/EC*, Ch. II, Art. 3(b), 3(c), Nov. 19, 2008 (<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32008L0101:EN:NOT>); see also Commission Decision 2009/339/EC of 16 April 2009 Amending Decision 2007/589/EC As Regards the Inclusion of Monitoring and Reporting Guidelines for Emissions and Tonne-Kilometre Data From Aviation Activities, Apr. 16, 2009 (<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:103:0010:0029:EN:PDF>).

<sup>35</sup> See *EC to Postpone Aviation Emissions Cap Announcement Until 2010*, ATW, Oct. 1, 2009 (<http://www.atwonline.com/news/story.html?storyID=18053>).

<sup>36</sup> See Directive 2008/101/EC, Ch. II, Art. 3(c).

<sup>37</sup> See, e.g., *Carbon Confusion*, Flight Int'l, Aug. 18-24, 2009; see also Buyck, C., *The EU's Environmental Maze*, ATW, Oct. 2009.

<sup>38</sup> See Commission Decision 2009/339/EC of 16 April 2009.

<sup>39</sup> Aviation & Env. News Serv., *The EU Set Climate Targets Ahead of Copenhagen*, Oct. 23, 2009.

<sup>40</sup> See EPA, *Inventory of US Greenhouse Gas Emissions and Sinks -- 1990-2007*.

<sup>41</sup> See *Airline Weekly, JetGreen, Environment, Conservations & Fuel*, Issue No. 258, Oct. 19, 2009.

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