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# Aviation and Climate Change Law & Policy

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## The 39th Assembly of the International Civil Aviation Organization: Regulation (from 2020) of Aviation Emissions Part II: The ICAO Decision



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### **A Process in Motion: The First Global Regime to Curb Aviation Emissions Agreed to in Landmark United Nations (UN) Accord**

In our Newsletter of September 2016 we, in concert with a majority of the aviation industry, questioned whether the world's first climate agreement set forth in the published Draft Assembly Resolution to govern the aviation sector would be ratified during the 39th General Assembly of the International Civil Aviation Organization (ICAO). Indeed, during the Assembly on October 6, 2016, an agreement on the ICAO Resolution was reached, aiming to implement the world's first international regime to combat aircraft CO<sub>2</sub> emissions. With headlines in every major international news source, it was announced that a process was now set in motion to curb aviation emissions. The agreement came a day after the December 2015 Paris accord ("Paris Agreement") to fight climate change entered into force – an accord which excluded aviation.

In 2013, at the 38th session of the Assembly, ICAO had pledged to cap aviation greenhouse gas (GHG) emissions at 2020 levels with the development of a global Market-Based Mechanism (MBM). Three years later, 191 Member States have now agreed to the Carbon Offset and Reduction Scheme for International Aviation (CORSIA). Over the next two years, ICAO will formulate rules for the global MBM system that will open the doors for airlines and air operators to establish policies by 2020 that will lead to carbon-neutral growth through carbon-offsetting (in lieu of a cap-and-trade system or a carbon emission tax).

This Newsletter aims to examine the form and substance of this global agreement on aviation emissions regulation. We will review and analyze the outcome of the 39th Assembly, its decision<sup>1</sup> in terms of the regulation of aviation emissions, and what that regulation means for airlines and air operators.



European Commissioner for Transport Violeta Bulc  
(Reuters)

As European Commissioner for Transport Violeta Bulc said, *"This unprecedented agreement opens a new chapter in international aviation, where sustainability finally becomes part of the way we fly...We have now set a **process in motion**, which will not be reversed. And yet, it is not 'Mission Accomplished.'* Over the next two years, ICAO will lay out the technical rules of the Global Market-Based Measure, and we will remain vigilant that it lives up to our expectations and is well implemented. The EU will offer its financial and technical assistance, **so that no country is left behind.**"<sup>2</sup>

## Background: The Aviation Emissions Problem that ICAO Seeks to Tackle



Three years ago, at the 38th ICAO Assembly, a consensus agreement<sup>3</sup> was reached to proceed with a roadmap towards a decision to be taken on a global MBM at the 39th ICAO Assembly for implementation in 2020. MBMs, as a mitigation tool, involve controlling the amount of carbon emissions to reduce the rate and magnitude of global warming. The most effective mitigation requires putting a price on carbon. The question was whether to rely on quality-based or price-based instruments. A quality-based instrument is an ETS (emissions trading scheme) – the most common example being the cap-and-trade system adopted by the EU. A price-based instrument is a carbon tax which sets a price on carbon, and emitters choose how much to emit. An ETS sets a total quota for emissions; emitters – the market – work out the price. Most economists prefer a tax while most countries/states do not.



During the nearly two-week long 39th General Assembly, Member States agreed on the form – and, to some extent, on the operation of a MBM to deal with the aviation emissions problem. The decision was hailed in the press as an historical first. ICAO, tasked since 1997 with addressing aviation emissions, approved a global MBM which will limit and offset emissions from the aviation sector to achieve the goal of carbon-neutral growth from 2020 onward.



The form of MBM chosen did not put a price on carbon, but instead instituted a global carbon offset scheme. This method was clearly the choice of States well before the Assembly began, as evidenced by successive drafts of the Resolution for the MBM. The MBM adopted is the Carbon Offsetting and Reduction Scheme for International Aviation (or CORSIA). In a nutshell, the CORSIA's purpose is to offset annual increases in total carbon emissions from international civil aviation above year 2020 levels while taking into account concerns of developing countries. The CORSIA, contrary to the current EU ETS, will not actively reduce the aviation emissions of international flights. Instead, the CORSIA is designed to cap emissions and require airline operators to offset any additional emissions to the 2020 levels. (By contrast, the 2015 Paris Agreement required an actual reduction in global CO<sub>2</sub> emissions in order to limit global warming below 2°C above pre-industrial levels.)

The challenge for Member States is to transform the CORSIA (as outlined in ICAO A39-WP/462, Resolution 22/2) into national legislation. ICAO Resolution 22/2, "Consolidated statement of continuing ICAO policies and practices related to environmental protection – Global Market-based Measure (MBM) scheme" is available online at [http://www.icao.int/Meetings/a39/Documents/WP/wp\\_462\\_en.pdf](http://www.icao.int/Meetings/a39/Documents/WP/wp_462_en.pdf).

### Aviation Emissions as a Contributor to Global Warming



Airplanes are powered by fossil fuel. In addition to emitting CO<sub>2</sub>, airplanes emit oxides of nitrogen and produce contrails, which can contribute to the formation of ozone, another greenhouse gas (GHG). Experts estimate that these

combined effects could more than double aviation's effect on global warming.<sup>4</sup>



The Kyoto Protocol<sup>5</sup> to the *United Nations Framework Convention on Climate Change* (UNFCCC) (adopted in 1997 and entered into force in 2005) placed quantifiable obligations upon developed States to decrease their levels of emissions, but specifically excluded aviation emissions from its rules. It instead designated ICAO to regulate these emissions. The 2015 Paris Agreement also did not address aviation.

Aviation and shipping are the only global business sectors without any targets to reduce emissions. Without substantive action, aviation emissions may well increase up to 700% by 2050.<sup>6</sup> Indeed, aviation's emissions almost doubled from 1990 to 2006.<sup>7</sup> The CORSIA is designed to address this problem.

### More Effective MBMs?

Other, and perhaps more effective market-based options could have been chosen: an emissions trading scheme – a cap-and-trade model or a baseline-and-credit one – or a carbon tax. Taxation of jet fuel is not possible under the Chicago Convention. (Signed in 1944, the Chicago Convention established rules and regulations of airspace, aircraft registration and safety, and also exempted air fuels in transit from double taxation.) But a ticket tax such as that employed by the worldwide health initiative largely financed by a levy on airline tickets, UNITAID,<sup>8</sup> (with modification) would work just fine, and would avoid a number of jurisdictional issues.

A tax might also have been more straightforward and easier to implement (although, it is not likely that such a tax would ever be in vogue as a means to address the emissions problem on an industry-wide, State or global basis). An ETS would have made sense given the EU already has one in place for EU carriers. (Introduced in 2005, the EU's ETS works on the cap-and-trade principal.



It capped the emissions of industrial sectors within the European Economic Area (EEA) – including commercial aviation. The EU ETS was the world’s first major carbon market.)



In September 2016 the EU’s Transport & Environment, an environmental lobbying group, released a report which found that an aviation ETS:

is a legally sound measure, with a high degree of compliance and with the potential to deliver real emissions reductions through a declining cap. This contrasts with the ... ICAO GMBM whose geographic coverage will fall well short of the ICAO’s own goal of [carbon neutral growth] in 2020 and which lacks both legal certainty and important environmental safeguards.<sup>9</sup>

Offsetting, however, has always been ICAO’s mechanism of choice. In part, this mechanism was chosen precisely because it is a less transparent mechanism and less onerous than an ETS (or a tax).

And, it cannot be forgotten that, an attempt to include non-EU carriers in the EU ETS failed a few years earlier.<sup>10</sup>

## No Global Consent Until Now: The CORSIA Outlined

The pre-Assembly draft CORSIA text considered in our earlier Newsletter and the final text are more or less the same.

In paragraph 9 of the Assembly Resolution, the CORSIA is implemented in phases as follows:

1. Pilot phase from 2021 to 2023 with voluntary participation from Member States to participate.
2. First phase from 2024 to 2026, also with voluntary participation from States, and would offset with reference to options in the Assembly Resolution text.
3. Second phase that would commence a decade from now in 2027 to 2035. This phase could exempt a significant number of States on various bases.<sup>11</sup>

By the end of the 39th Assembly, 65 States – representing about 86.5% of international air traffic – had announced their intention to participate in the CORSIA from its outset.<sup>12</sup>

The phased implementation of the decision is outlined in Paragraph 9 of the Assembly’s final decision text (ICAO’s Assembly Resolution A39-3):

9. *[The Assembly] [d]ecides* the use of a phased implementation for the CORSIA to accommodate the special circumstances and respective capabilities of States, in particular developing States, while minimizing market distortion, as follows:

- a) Pilot phase applies from 2021 through 2023 to States that have volunteered to participate in the scheme. States participating in this phase may determine the basis of their aircraft operator’s offsetting requirements from paragraph 11 e) i) below;
- b) First phase applies from 2024 through 2026 to States that voluntarily participate in the pilot phase, as well as any other States that volunteer to participate in this phase, with the calculation of offsetting requirements in paragraph 11 a) below;



- c) All States are strongly encouraged to voluntarily participate in the pilot phase and the first phase, noting that developed States, which have already volunteered, are taking the lead, and that several other States have also volunteered;
- d) The Secretariat will make public on the ICAO website updated information on the States that volunteered to participate in the pilot phase and first phase;
- e) Second phase applies from 2027 through 2035 to all States that have an individual share of international aviation activities in RTKs in year 2018 above 0.5 per cent of total RTKs or whose cumulative share in the list of States from the highest to the lowest amount of RTKs reaches 90 per cent of total RTKs, except Least Developed Countries (LDCs), Small Island Developing States (SIDS) and Landlocked Developing Countries (LLDCs) unless they volunteer to participate in this phase; [and]
- f) States that are exempted or have not yet participated are strongly encouraged to voluntarily participate in the scheme as early as possible, in particular those States that are members of a regional economic integration organization. States who decide to voluntarily participate in the scheme, or decide to discontinue the voluntary participation from the scheme, may only do so from 1 January in any given year and they shall notify ICAO of their decision by no later than 30 June of the preceding year ...<sup>13</sup>

The CORSIA is designed as a route-based approach – which means that emissions from international flights between two States, where both the origin and destination States participate in the CORSIA, are covered by the offsetting requirements of the scheme. On the other hand, emissions from international flights between two States, where the origin and/or destination States do not participate in the CORSIA, are excluded from the offsetting requirements of the scheme.<sup>14</sup>

### ***What is the basis for a route-based approach?***

With a view to minimizing market distortions between aircraft operators on the same routes, the CORSIA is designed to provide equal treatment of all aircraft operators on a given route.<sup>15</sup> In other words, there is no discrimination under the CORSIA based on the nationality of the air operator or carrier. Paragraph 10, of the 39th Assembly's final text decision (ICAO's Assembly Resolution A39-3), sets out the application of the CORSIA:

10. *[The Assembly] [d]ecides* that the CORSIA shall apply to all aircraft operators on the same routes between States with a view to minimizing market distortion, as follows:

- a) all international flight on the routes between States, both of which are included in the CORSIA by paragraph 9 above, are covered by the offsetting requirements of the CORSIA;
- b) all international flights on the routes between a State that is included in the CORSIA and another State that is not included in the CORSIA by paragraph 9 above are exempted from the offsetting requirements of the CORSIA, while retaining simplified reporting requirements; and
- c) all international flights on the routes between States, both of which are not included in the CORSIA by paragraph 9 ... are exempted from the offsetting requirements of the CORSIA, while retaining simplified reporting requirements.<sup>16</sup>



### ***How is an aircraft operator's offsetting requirement calculated?***

Paragraph 11 of ICAO's Assembly Resolution A39-3 sets out the basis for calculation of the amount of CO<sub>2</sub> emissions required to be offset by an aircraft operator in a given year from 2021. This calculation is set out in the Annex to this Newsletter.<sup>17</sup>



While a previous draft of the Resolution<sup>18</sup> asked the aviation sector to assess its share of the global carbon budget for holding warming to 1.5C to 2C, the final draft of Resolution A39-3 did not contain any such assessment. Reference is now made simply to a request that ICAO “continue to explore the feasibility of a long term global aspirational goal for *international* aviation, through conducting detailed studies ...”<sup>19</sup>

The CORSIA only applies to international flights, which make up about 60% of aviation emissions.<sup>20</sup>



## Critiquing the CORSIA

Despite the global consensus for the CORSIA, governments from individual countries must still act on their own to formulate plans to put the Agreement’s limits into effect. At this stage, for the first voluntary period of the Agreement, 65 States will join. Brazil’s participation is unclear.<sup>21</sup> And, it appears that Russia and India, two of the world’s largest emitters, will not participate. (Recently, the International Air Transport Association (IATA) announced that India is forecast to become the third largest aviation market in the world by displacing the United Kingdom in 2026.)

The U.S. Department of State, said the deal “puts the industry on a path toward sustainable, carbon-neutral growth.”<sup>22</sup> But the deal’s reliance on offsets has drawn criticism. The director of the advocacy group, Transport & Environment, said, “taking a plane is the fastest and cheapest way to fry the planet and this deal won’t reduce demand for . . . fuel one drop.”<sup>23</sup>

While ICAO has set out requirements with which the carbon offset scheme would need to comply – avoidance of double counting, realistic baselines and permanency, for example – experience from the Kyoto Protocol’s Clean Development Mechanism (CDM) and other evidence suggests that offsets do not provide climate benefits. (Kyoto’s CDM provides for emissions reduction projects which generate Certified Emission Reduction units (CERs) which may be traded in emissions trading schemes.<sup>24</sup>)

Critics have noted that the ICAO Assembly decision does not represent cutting-edge efforts on sustainability. The CORSIA is not a mechanism for emissions reductions but, rather, offsetting emissions. Because of this, critics have argued that offsetting does not necessarily reduce emissions, but merely changes the producer.<sup>25</sup>

Concerns have also been raised that projects “may sell the ‘same’ ton of carbon to different buyers, each claiming the credits in different carbon markets. When double-counted, the environmental effectiveness of an offset is reduced by half.”<sup>26</sup>

There is a view that fixing the aviation emissions problem will require more than purchasing offsets, that the ICAO offsetting approach raises questions about effectiveness and levels of compliance. *Aviation Week & Space Technology* puts the matter thus:

Airlines have committed to what they define as “carbon-neutral growth” from 2020, which many have misinterpreted as meaning that aviation will actually freeze its own emissions at the level they reach four years from now. In fact, the CORSIA is a tool that determines what happens if airlines do not reach their targets: They must offset their excess emissions by funding environmental projects elsewhere. But aircraft emissions will continue to grow and, based on the CORSIA, they will have little effect on airline expenses. There are no provisions regarding emissions growth in the next five years; in 2021, the scheme is introduced on a voluntary basis over several years, and it expires in 2035, only a few years after it becomes fully functional. For even the fastest-growing airlines, the impact on capacity and aircraft-retirement decisions will be insignificant.<sup>27</sup>



In sum, the CORSIA's critics contend that it offers little incentive for change because it lacks legal certainty and environmental safeguards.



ICAO gave three top reasons for adopting the CORSIA:<sup>28</sup>

1. Climate change is a global problem, which requires global efforts. The CORSIA is a global scheme for the global international aviation industry. The more States join the CORSIA, the more emissions are covered by the scheme (higher environmental integrity is achieved). Each State participating in the CORSIA brings us closer to meeting the ICAO global aspirational goal of carbon neutral growth from 2020. Even if a State does not have aircraft operators registered in the State (and therefore no compliance cost is incurred), the State's participation in the scheme will add those routes operated by foreign aircraft operators between the State and other participating States, thus increasing the overall emissions coverage of the scheme. States with particular interest in eco-tourism would also benefit from greening their air transport connection.
  
2. States that voluntarily participate in the pilot phase of the CORSIA (from 2021 through 2023) and require assistance will be given priority to the capacity building and assistance, with a view to enabling the smooth implementation of the CORSIA and also under the spirit of the **"No Country Left Behind" initiative**. Building upon the experience in previous capacity building and assistance initiatives, this can create further synergies for the improvement of the overall environmental performance in those States.

3. Assembly Resolution A39-3 requests the Council to promote the use of emissions units that benefit developing States. Participating in the CORSIA will increase the demand for the emissions units to be purchased by aircraft operators, thus increasing incentives to invest in emissions reduction projects in the participating States.<sup>29</sup>

Many of the technical and procedural details of the CORSIA have not been made clear. Over the next several years, the technical rules of the MBM system established under the CORSIA will continue to be formulated. How the CORSIA will impact airlines and other aviation operators which fly internationally will depend upon how CORSIA is developed in their home country – and whether that country is a voluntary participant of the CORSIA.

Overall, the CORSIA will require air carriers and operators to measure, verify, and report GHG emissions to ICAO.<sup>30</sup> Domestic flights and aircraft under 5,700 kg MTOW (Maximum Takeoff Weight – the heaviest weight at which the aircraft has been shown to meet all the airworthiness requirements applicable to it) are not affected by the scheme. Additionally, the carrier or operator must produce more than 10,000 tonnes of CO<sub>2</sub> emissions on international flights (a significant amount) annually to trigger compliance with the CORSIA.<sup>31</sup> Current generation business jets would have to fly at least 2,000 hours or more per year to reach the threshold of 10,000-metric-ton for CO<sub>2</sub>.<sup>32</sup>



### What Does the CORSIA Mean to Airlines and Air Operators

Frederik Dahlmann, assistant professor of global energy at the Warwick Business School at the University of Warwick (located in Coventry, England), said the main goal of the CORSIA is to allow operators to offset unavoidable aircraft emission growth with the reduction of activities elsewhere. As Professor Dahlmann explains:



Broadly, carbon offsetting works by first measuring, verifying, and reporting a company's corporate carbon footprint and then by purchasing 'carbon offset credits' for any emissions the company cannot actively reduce by itself. These credits are financial instruments and come from investments in projects around the world in renewable energies such as wind and solar energy, but also in commercial and industrial projects which intentionally reduce their existing emissions. To offset its emissions, the company buys an equivalent volume of carbon offset credits to cover its own emissions.<sup>33</sup>

Importantly, the CORSIA allows operators to buy carbon credits and outsource the process of reducing emissions to companies or organizations dedicated solely to that purpose.



Most major international aviation operators have been preparing for the CORSIA. American Airlines, for example, in its October 2016 report filed with the Securities and Exchange Commission (SEC), highlighted the potential financial impact of international emissions reduction regulations on its operations:

*We are subject to risks associated with climate change, including increased regulation to reduce emissions of greenhouse gases. ... In October 2016, ICAO passed a resolution adopting the ICAO Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA), which is a global, market-based emissions offset program to encourage carbon-neutral growth beyond 2020. The CORSIA was supported by the board of Airlines For America (the principal US airline trade association) and IATA (the principal international airline trade association), and by American and many other U.S. and foreign airlines. The CORSIA will increase operating costs for American and most other airlines, including other U.S. airlines that operate internationally, but the implementation of a global program, as compared to regional emission reduction*

schemes, should help to ensure that these costs will be more predictable and more evenly applied to American and its competitors. Certain details still need to be developed and the impact of the CORSIA cannot be fully predicted. Although the EU has not detailed its future plans for the EU ETS, it is expected that the adoption of the CORSIA by ICAO will generally stave off a proliferation of regional schemes like EU ETS, and other environmental taxes. While we do not anticipate any significant emissions allowance expenditures in 2016, beyond 2016 compliance with the CORSIA, ETS or similar emissions-related requirements could significantly increase our operating costs. Further, the potential impact of the CORSIA, ETS or other emissions-related requirements on our costs will ultimately depend on a number of factors, including baseline emissions, the price of emission allowances or offsets and the number of future flights subject to such emissions-related requirements. These costs have not been completely defined and could fluctuate.<sup>34</sup>

Under the CORSIA, operators will have to take into account the projected growth of long-term GHG.<sup>35</sup>

Kurt Edwards, director general of the International Business Aviation Council (IBAC), which represents business aviation associations – like the National Business Aviation Association (NBAA), the European Business Aviation Association (EBAA) and the Asian Business Aviation Association (ASBAA) – working with the ICAO Committee for Aviation Environmental Protection welcomed the approach for a global standard:

The worldwide business aviation community welcomes the decision by governments at ICAO to establish a single, global carbon-offsetting scheme for international aviation. The framework agreed at ICAO will help us meet our collective industry commitments while also taking into account the needs of small operators. Importantly, the global framework means we will avoid a patchwork of multiple measures around the world.<sup>36</sup>

The CORSIA may not be the aviation industry's only solution. The utilization of new technologies to achieve a





sustainable future (such as alternative fuels) must be a part of any solution. Moreover, to address the aviation emissions problem, a price on carbon must be considered. An ETS, or a tax, prices carbon directly and effectively. Offsets do not. It appears, then, that airlines (domestic and international) – and the aviation industry – still have some way to go to *effectively* address their emissions problem.

## ANNEX

ICAO Resolution 22/2, A39-WP/462, “Consolidated statement of continuing ICAO policies and practices related to environmental protection – Global Market-based Measure (MBM) scheme,” Paragraph 11<sup>37</sup>

11. *Decides* that the amount of CO<sub>2</sub> emissions required to be offset by an aircraft operator in a given year from 2021 is calculated every year as follows:

- a) an aircraft operator’s offset requirement = [% Sectoral × (an aircraft operator’s emissions covered by CORSIA in a given year × the sector’s growth factor in the given year)] + [% Individual × (an aircraft operator’s emissions covered by CORSIA in a given year × that aircraft operator’s growth factor in the given year);
- b) where the sector’s growth factor = (total emissions covered by CORSIA in the given year – average of total emissions covered by CORSIA between 2019 and 2020) / total emissions covered by CORSIA in the given year;
- c) where the aircraft operator’s growth factor = (the aircraft operator’s total emissions covered by CORSIA in the given year – average of the aircraft operator’s emissions covered by CORSIA between 2019 and 2020) / the aircraft operator’s total emissions covered by CORSIA in the given year;
- d) where the % Sectoral = (100% – % Individual) and;
- e) where the % Sectoral and % Individual will be applied as follows:
  - i) from 2021 through 2023, 100% sectoral and 0% individual, though each participating State may choose during this pilot phase whether to apply this to:
    - a) an aircraft operator’s emissions covered by CORSIA in a given year, as stated above, or
    - b) an aircraft operator’s emissions covered by CORSIA in 2020;
  - ii) from 2024 through 2026, 100 % sectoral and 0% individual;
  - iii) from 2027 through 2029, 100 % sectoral and 0% individual;
  - iv) from 2030 through 2032, at least 20% individual, with the Council recommending to the Assembly in 2028 whether and to what extent to adjust the individual percentage;
  - v) from 2033 through 2035, at least 70% individual, with the Council recommending to the Assembly in 2028 whether and to what extent to adjust the individual percentage;
- f) the aircraft operator’s emissions and the total emissions covered by CORSIA in the given year do not include emissions exempted from the scheme in that year;
- g) the scope of emissions in paragraphs 11 b) and 11 c) above will be recalculated at the start of each year to take into account routes to and from all States that will be added due to their voluntary participation or the start of a new phase or compliance cycle ...



- <sup>1</sup> ICAO, 39<sup>th</sup> Assembly, A39-WP/462, Draft Text for the Report on Agenda Item 22, Section on Global Market-Based Measure Scheme, available at [http://www.icao.int/Meetings/a39/Documents/WP/wp\\_462\\_en.pdf](http://www.icao.int/Meetings/a39/Documents/WP/wp_462_en.pdf).
- <sup>2</sup> European Commission Statement: “Commission welcomes landmark deal to curb international aviation emissions,” Brussels, 6 October 2016, available at [http://europa.eu/rapid/press-release\\_STATEMENT-16-3331\\_en.htm](http://europa.eu/rapid/press-release_STATEMENT-16-3331_en.htm).
- <sup>3</sup> ICAO, “Report of the Executive Committee on Agenda Item 17, Section on Climate Change,” Assembly – 38<sup>th</sup> Session, 24 September to 4 October 2015, available at [http://www.icao.int/Meetings/a38/Documents/WP/wp430\\_en.pdf](http://www.icao.int/Meetings/a38/Documents/WP/wp430_en.pdf).
- <sup>4</sup> Washington Post, “The world is about to get tough on aviation emissions. Here’s what you need to know,” October 14, 2016, available at <https://www.washingtonpost.com/news/monkey-cage/wp/2016/10/14/the-world-is-about-to-get-tough-on-aviation-emissions-heres-what-you-need-to-know/>.
- <sup>5</sup> United Nations, Kyoto Protocol, available at [http://unfccc.int/kyoto\\_protocol/items/2830.php](http://unfccc.int/kyoto_protocol/items/2830.php).
- <sup>6</sup> European Commission, “Reducing Emissions from Aviation,” available at [https://ec.europa.eu/clima/policies/transport/aviation/index\\_en.htm](https://ec.europa.eu/clima/policies/transport/aviation/index_en.htm).
- <sup>7</sup> Redd-Monitoring, “More than 80 NGOs oppose aviation sector’s carbon offsetting plans,” available at <http://www.redd-monitor.org/2016/04/04/more-than-80-ngos-oppose-aviation-sectors-carbon-offsetting-plans/>.
- <sup>8</sup> UNITAID, Innovating for Global Health, “Innovative Financing,” available at <http://www.unitaid.eu/en/how/innovative-financing>.
- <sup>9</sup> European Federation for Transport and Environment, Report “Aviation ETS – gaining altitude: An analysis of the aviation EU ETS 2013-2015,” September 2016, available at [https://www.transportenvironment.org/sites/te/files/2016\\_09\\_Aviation\\_ETS\\_gaining\\_altitude.pdf](https://www.transportenvironment.org/sites/te/files/2016_09_Aviation_ETS_gaining_altitude.pdf).
- <sup>10</sup> European Commission, “Reducing Emissions from Aviation,” available at [http://ec.europa.eu/clima/policies/transport/aviation/index\\_en.htm](http://ec.europa.eu/clima/policies/transport/aviation/index_en.htm).
- <sup>11</sup> ICAO, 39<sup>th</sup> Assembly, A39-WP/462, Draft Text for the Report on Agenda Item 22, Section on Global Market-Based Measure Scheme, available at [http://www.icao.int/Meetings/a39/Documents/WP/wp\\_462\\_en.pdf](http://www.icao.int/Meetings/a39/Documents/WP/wp_462_en.pdf).
- <sup>12</sup> United Nations, Framework Convention on Climate Change, “Information relevant to emissions from fuel used for international aviation and maritime transport,” 7 November 2016, available at <http://unfccc.int/resource/docs/2016/sbsta/eng/misc05.pdf>.
- <sup>13</sup> ICAO, 39<sup>th</sup> Assembly, A39-WP/462, Draft Text for the Report on Agenda Item 22, Section on Global Market-Based Measure Scheme, available at [http://www.icao.int/Meetings/a39/Documents/WP/wp\\_462\\_en.pdf](http://www.icao.int/Meetings/a39/Documents/WP/wp_462_en.pdf).
- <sup>14</sup> United Nations, Framework Convention on Climate Change, “Information relevant to emissions from fuel used for international aviation and maritime transport,” 7 November 2016, available at <http://unfccc.int/resource/docs/2016/sbsta/eng/misc05.pdf>.
- <sup>15</sup> ICAO, “What is CORSIA and how does it work?,” available at [http://www.icao.int/environmental-protection/Pages/A39\\_CORSIA\\_FAQ2.aspx](http://www.icao.int/environmental-protection/Pages/A39_CORSIA_FAQ2.aspx).
- <sup>16</sup> ICAO, 39<sup>th</sup> Assembly, A39-WP/462, Draft Text for the Report on Agenda Item 22, Section on Global Market-Based Measure Scheme, available at [http://www.icao.int/Meetings/a39/Documents/WP/wp\\_462\\_en.pdf](http://www.icao.int/Meetings/a39/Documents/WP/wp_462_en.pdf).
- <sup>17</sup> *Ibid.*
- <sup>18</sup> ICAO, 39<sup>th</sup> Assembly, A39-WP/49, Working Paper for the Report on Agenda Item 22, Section on Global Market-Based Measure Scheme, available at [http://www.icao.int/Meetings/a39/Documents/WP/wp\\_049\\_en.pdf](http://www.icao.int/Meetings/a39/Documents/WP/wp_049_en.pdf).
- <sup>19</sup> ICAO Resolution A39-2: “Consolidated statement of continuing ICAO policies and practices related to environmental protection – Climate change,” available at [http://www.icao.int/environmental-protection/Documents/Resolution\\_A39\\_2.pdf](http://www.icao.int/environmental-protection/Documents/Resolution_A39_2.pdf).
- <sup>20</sup> Associated Press, “UN agreement reached on aircraft climate-change emissions,” 6 October 2016, available at <http://bigstory.ap.org/article/6be5cb930f7b4ecbb24ec79219a74225/un-agreement-reached-aircraft-climate-change-emissions>.
- <sup>21</sup> Reuters, “U.N. sets limits on global airline emissions amid dissent,” 6 October 2016, available at <http://www.reuters.com/article/us-climatechange-aviation-idUSKCN1261QR>.
- <sup>22</sup> *Ibid.*
- <sup>23</sup> *Ibid.*
- <sup>24</sup> United Nations, Framework Convention on Climate Change, “Clean Development Mechanism (CDM),” available at [http://unfccc.int/kyoto\\_protocol/mechanisms/clean\\_development\\_mechanism/items/2718.php](http://unfccc.int/kyoto_protocol/mechanisms/clean_development_mechanism/items/2718.php).
- <sup>25</sup> Washington Post, “The world is about to get tough on aviation emissions - Here’s what you need to know,” 14 October 2016, available at <https://www.washingtonpost.com/news/monkey-cage/wp/2016/10/14/the-world-is-about-to-get-tough-on-aviation-emissions-heres-what-you-need-to-know/>.
- <sup>26</sup> *Ibid.*
- <sup>27</sup> Aviation Week, “Opinion: Why ICAO’s Emissions Deal Will Not Make a Difference,” 20 October 2016, available at <http://aviationweek.com/commercial-aviation/opinion-why-icao-s-emissions-deal-will-not-make-difference>.
- <sup>28</sup> ICAO, “Top 3 reasons to join CORSIA,” available at [http://www.icao.int/environmental-protection/Pages/A39\\_CORSIA\\_FAQ5.aspx](http://www.icao.int/environmental-protection/Pages/A39_CORSIA_FAQ5.aspx).
- <sup>29</sup> *Ibid.*



- <sup>30</sup> Aviation Today, “How Operators Will Be Impacted by ICAO’s CORSIA Agreement,” 11 October 2016, available at [http://www.aviationtoday.com/av/commercial/How-Operators-Will-Be-Impacted-by-ICAOs-CORSIA-Agreement\\_88875.html](http://www.aviationtoday.com/av/commercial/How-Operators-Will-Be-Impacted-by-ICAOs-CORSIA-Agreement_88875.html).
- <sup>31</sup> Corporate Jet Investor, “ICAO CORSIA good for business jet operators,” 7 October 2016, available at <http://corporatejetinvestor.com/articles/icao-corsia-good-for-business-jet-operators-300/>.
- <sup>32</sup> National Business Aviation Association (NBAA), “IBAC’s Edwards: ICAO Emissions Framework a Starting Point for Business Aviation,” 2 November 2016, available at <https://www.nbaa.org/events/bace/2016/newsroom/news/20161102-ibacs-edwards-icao-emissions-framework-a-starting-point-for-business-aviation.php>.
- <sup>33</sup> Aviation Today, “How Operators Will Be Impacted by ICAO’s CORSIA Agreement,” 11 October 2016, available at [http://www.aviationtoday.com/av/commercial/How-Operators-Will-Be-Impacted-by-ICAOs-CORSIA-Agreement\\_88875.html](http://www.aviationtoday.com/av/commercial/How-Operators-Will-Be-Impacted-by-ICAOs-CORSIA-Agreement_88875.html).
- <sup>34</sup> U.S. Securities and Exchange Commission, American Airlines, Inc. 10-Q, filed 20 October 2016, available at <https://www.sec.gov/Archives/edgar/data/4515/000119312516742263/d247546d10q.htm>.
- <sup>35</sup> Aviation Today, “How Operators Will Be Impacted by ICAO’s CORSIA Agreement,” 11 October 2016, available at [http://www.aviationtoday.com/av/commercial/How-Operators-Will-Be-Impacted-by-ICAOs-CORSIA-Agreement\\_88875.html](http://www.aviationtoday.com/av/commercial/How-Operators-Will-Be-Impacted-by-ICAOs-CORSIA-Agreement_88875.html).
- <sup>36</sup> AIN Online, “ICAO Aviation Emissions Scheme Exempts Most Bizav Ops,” 6 October 2016, <http://www.ainonline.com/aviation-news/business-aviation/2016-10-06/icao-aviation-emissions-scheme-exempts-most-bizav-ops>.
- <sup>37</sup> ICAO, 39<sup>th</sup> Assembly, A39-WP/462, Draft Text for the Report on Agenda Item 22, Section on Global Market-Based Measure Scheme, available at [http://www.icao.int/Meetings/a39/Documents/WP/wp\\_462\\_en.pdf](http://www.icao.int/Meetings/a39/Documents/WP/wp_462_en.pdf).



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*For more information or questions about the topics presented in this Newsletter, please contact us.*

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