The ICAO Assembly Resolutions on International Aviation and Climate Change: An Historic Agreement, a Breakthrough Deal, and the Cancun Effect

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In what the International Civil Aviation Organization (ICAO) heralds as a 'historic agreement' and the European Union (EU) calls a 'breakthrough deal', the recent ICAO Assembly Resolutions A37-18 and 19 mark the end of the Assembly Resolution A36-22 'mutual agreement' stalemate on emissions trading, which represents a significant achievement with respect to aviation and climate change. Although Assembly Resolutions A37-18 and 19 are non-binding, the as yet 'aspirational' goals that they set out demonstrate the collective will of the civil aviation industry and ICAO Member States to work together towards the common objective of limiting and reducing the global impact of aviation noise and emissions.

The texts of Assembly Resolutions A37-18 and 19 prompt closer analysis vis-à-vis questions of whether ICAO is (still) the appropriate forum for addressing international aviation emissions and on the legitimacy of its manifesto for continuous leadership. ICAO's general approval for use of market-based mechanisms to establish a viable global framework mechanism for aviation emissions is also noteworthy, particularly in the context of the EU's Emissions Trading Scheme (EU ETS), the position of the Convention on International Civil Aviation (the Chicago Convention), and recent legal challenge against inclusion of aviation in the scheme.

This article suggests that on emergence from the United Nations Framework Convention on Climate Change (UNFCCC)'s 16th Conference of the Parties (COP-16) in Cancun in December 2010, the ICAO Member States and the aviation sector should feel proud that the spirit of cooperation and sense of success they promoted in the wake of the recent ICAO Assembly Resolutions may have contributed to the most recent progress in the global campaign against climate change: the Cancun Agreements. Thus, this article argues it is foreseeable that the latest progress under the UNFCCC process will have a reverse demonstrative effect on future ICAO dialogue and resolution.

1. United Nations Framework Convention on Climate Change (UNFCCC) and Kyoto

Since the mid-1980s, the issue of climate change has appeared globally on political agendas and has come under the focus of intense public debate with an increasing, consistent urgency. This has produced, at the domestic level, the development and implementation of environmental policy and legislation to varying degrees, predominantly in developed countries. Internationally, the United Nations Framework Convention on

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Climate Change (UNFCCC), founded at the Rio Earth Summit in 1992, is 'universally recognized to be the appropriate legal forum to tackle the problem of climate change'.[1] The UNFCCC negotiation process, the feature of its framework, provides the foundation for intergovernmental efforts to reduce global warming and finding a way to cope with inevitable temperature increases.[2]

The UNFCCC came into force in March 2004. To date, the 192 parties to UNFCCC have agreed to formulate and implement national strategies for addressing Greenhouse Gas (GHG) emissions, which includes the pledge to provide financial and technological support to developing countries so as to foster a stronger commitment from their part. Although the Convention is an international treaty, it remains only a framework rather than a programme with mandatory limits on emissions or enforcement conditions. The Kyoto Protocol[3] to the UNFCCC was adopted by the third session of the Conference of the Parties (COP-3) in 1997 and entered into force on 16 February 2005. The Protocol sets out national goals and reduction and limitation commitments that guide the respective national strategies.

For industrial sectors that are purely domestic, the Kyoto Protocol represents what is regarded as a viable mechanism for monitoring the respective sectors' limitation and reduction efforts. For sectors in which the environmental effects cannot be as neatly confined within the borders of sovereign States, such as international aviation, the application of national goals and reduction and limitation commitments is less straightforward. To complicate matters, the nature of international aviation is that aircraft fly over multiple States and the international waters of the high seas, which implies that addressing the emissions from international aviation is perhaps an even more complex task. In light of this, the UNFCCC and Kyoto Protocol do not expressly include international aviation emissions in countries' national goals on their reduction and limitation commitments. Although international aviation is excluded from its targets, the Kyoto Protocol does provide that each party ('Annex I Parties'):

> … in achieving its quantified emission limitation and reduction commitments under Article 3 [reducing their overall emissions of such gases by at least five per cent below 1990 levels in the commitment period 2008 to 2012][4], in order to promote sustainable development, shall implement and/or future elaborate policies and measures in accordance with its national circumstances, such as … measures to limit and/or reduce emissions of greenhouse gases not controlled by the Montreal Protocol[5] in the transport sector … [and] shall pursue limitation or reduction of emissions of greenhouse gases not controlled by the Montreal Protocol from aviation and marine

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[1] United Nations Framework Convention on Climate Change (UNFCCC), 'Kyoto Protocol and the UN Climate Change Secretariat: A Global Framework to Tackle Climate Change', <www.un.org/climatechange/pdfs/bali/unfcc-bali07-2.pdf>, 22 Sep. 2010.

[2] UNFCCC, 'Essential Background', <http://unfccc.int/essential_background/items/2877.php>, 22 Sep. 2010.

[3] Kyoto Protocol to the United Nations Framework Convention on Climate Change, 11 Dec. 2007, reprinted (1998) 37 I.L.M. 32.

[4] *Ibid.*, Art. 3.

[5] United Nations Environment Programme (UNEP), 'Montreal Protocol on Substances that Deplete the Ozone Layer (2000)', <www.unep.org/OZONE/pdfs/Montreal-Protocol2000.pdf>, 22 Sep. 2010.

bunker fuels, working through the International Civil Aviation Organization and the International Maritime Organization, respectively.[6]

Although beyond the scope of this article, it is essential to note another matter flowing in parallel to the emissions forum question since it is equally deserving of a separate examination: how to reconcile the principle of non-discrimination at the International Civil Aviation Organization (ICAO) under the Convention on International Civil Aviation (ICA),[7] hereinafter 'the Chicago Convention', that established it and principles of Common but Differentiated Responsibilities (CBDR) and respective capabilities under UNFCCC and the Kyoto Protocol. Moreover, some countries favour the UNFCCC negotiation process while others support ICAO-led coordination.[8] The UNFCCC notes that reconciling its decision-making principles of CBDR with the ICAO's principle of non-discrimination requires 'mutual respect between the two processes, political leadership and innovative thinking',[9] but this stops short of providing any real clarification or certainty.

2. ICAO

First, it is needful to set out the distinction between the roles of ICAO and UNFCCC with respect to GHG emissions. ICAO deals solely with *international* aviation emissions, with an emphasis on the sector's global nature, while the UNFCCC addresses emissions from all other *domestic* sectors. Each organization has its own independent and distinct decision-making process;[10] nonetheless, there is some synergy between the two. If the major portion of emissions from international aviation occurs in international airspace, reason seems to support that ICAO is the relevant and appropriate UN body to oversee the environmental aspects of international civil aviation.

Although there is no mention of 'environment' in the Chicago Convention,[11] the fact that ICAO is the single body responsible for international civil aviation seems to advocate for its position as the de facto forum for any dialogue on establishing an international aviation emissions framework. ICAO regularly reports carbon dioxide (CO_2) international aviation emissions data to the UNFCCC. The data are used to assess whether and to what extent progress is being made with respect to implementation actions within the sector. Ensuring accuracy in the estimating and reporting of emissions data is a challenge for ICAO and has, therefore, been referred to the UNFCCC Subsidiary Body for Scientific and Technological Advice (SBSTA) on numerous occasions,

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[6] Kyoto Protocol, Art. 2.

[7] International Civil Aviation Organization (ICAO), 'Convention on International Civil Aviation, 9th edn, Doc. 7300/9, 2006', <www.icao.int/icaonet/arch/doc/7300/7300_9ed.pdf>, 9 Sep. 2010.

[8] ICAO, 'Pre-Assembly Environment Report 2010', <www.icao.int/icao/en/env2010/environmentreport_2010.pdf>, 11 Sep. 2010, 221.

[9] ICAO, 'Report of the Executive Committee to the 37th Session of the Assembly on Climate Change', Doc. A37-WP/402, P/66, 7 Oct. 2010, <www.icao.int/icao/en/assembl/a37/wp/wp402_en.pdf>, 20 Oct. 2010, 17-5.

[10] CBDR under UNFCCC and non-discrimination under ICAO.

[11] Chicago Convention, *supra* n. 7.

which demonstrates that an interdependent liaison exists between the two UN bodies. To fulfil its role as charged by the Chicago Convention, ICAO 'strives to achieve a balance between the benefit accruing to the world community through civil aviation and the harm caused to the environment in certain areas through the progressive advancement of civil aviation'.[12] The 33rd Session of the Assembly was the first[13] in 2001 to declare expressly that ICAO is 'conscious of and will continue to take into account the adverse environmental impacts that may be related to civil aviation activity and its responsibility and that of its Contracting States to achieve maximum compatibility between the safe and orderly development of civil aviation and the quality of the environment'.[14]

When the ICAO's Committee on Aviation Environmental Protection (CAEP) met in 2004, it agreed that an aviation-specific emissions trading system based on a new legal instrument under the auspices of ICAO seemed unattractive and, therefore, should not be pursued.[15] Assembly Resolution A35-5[16] urged ICAO Member States[17] to 'refrain from unilateral implementation of GHG emissions charges'.[18] It also endorsed 'the further development of an open emissions trading system for international aviation'[19] either on a voluntary basis or by incorporating emissions from international aviation into Member States' emissions trading schemes, if available, under the UNFCCC process; this should be viewed as a starting point for a discourse on international aviation emissions.

At the 36th Session of the Assembly in September 2007, the ICAO Council requested the formation of the Group on International Aviation and Climate Change (GIACC) to develop the Programme of Action on International Aviation and Climate Change. The Council convened the High-Level Meeting on International Aviation and Climate Change (HLM-ENV) in October 2009, which reviewed and endorsed the GIACC's Programme of Action and approved an ICAO declaration and recommendations on matters, for an improvement in fuel efficiency,[20] for 'further exploration of the feasibility of more ambitious medium and long-term goals, including Carbon-Neutral Growth (CNG) and emissions reductions';[21] for the development of a CO_2 standard for aircraft;

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[12] ICAO, Assembly Resolution A33-7, 'Consolidated Statement of Continuing ICAO Policies and Practices Related to Environmental Protection', at Annex A, 2001, <www.icao.int/icao/en/env/a33-7.htm>, 28 Jan. 2011.

[13] ICAO Assembly Resolution A32-8 sets out an introductory text on environmental concerns in 1998.

[14] *Supra* n. 13.

[15] See also further consideration by the EU on this point in Recital 9 of the Preamble, Directive 2008/101/EC of the European Parliament and of the Council of 19 Nov. 2008 amending Directive 2003/87/EC so as to include aviation activities in the scheme for greenhouse gas emission allowance trading within the Community, OJ L 8/3, 13 Jan. 2009.

[16] ICAO, Assembly Resolution A35-5, 'Consolidated Statement of Continuing ICAO Policies and Practices Related to Environmental Protection', Doc. 9848, 1998, <www.icao.int/env/a35-5.pdf>, 1 Feb. 2011.

[17] All mentions in this article of Member States refer to ICAO Member States unless otherwise stated (e.g., EU Member States). Aside from original quotations, all other mentions in this article of Contracting States refer to Contracting States to the Chicago Convention.

[18] *Supra* n. 17, Appendix I, para. 2(b)(4).

[19] *Ibid*.

[20] ICAO organized a workshop on Aviation and Alternative Fuels in February 2009 and the Conference on Aviation and Alternative Fuels (CAAF) in November. The latter approved a Declaration, Recommendations, and the Global Framework for Aviation Alternative Fuels, which was presented to COP-15. Source: ICAO, 'Report of the Executive Committee to the 37th Session of the Assembly on Climate Change', Doc. A37-WP/402, P/66, 7 Oct. 2010, <www.icao.int/icao/en/assembl/a37/wp/wp402_en.pdf>, 20 Oct. 2010, paras 17.3.1 and 17.3.11.

[21] *Supra* n. 10, para. 17.3.9.

for development of a framework for Market-Based Measures (MBMs) in international aviation; for an elaboration of measures to assist developing States; and for the submission of Member States' action plans to ICAO outlining policies and actions.[22] The concrete proposals were provided to the UNFCCC's 15th Conference of Parties (COP-15) in December 2009; and the GIACC agreed that the goals 'should be collectively achieved by States without specific obligations to individual States'.[23]

ICAO urged its Member States to refrain from imposing emissions trading systems on other Member States' aircraft operators unless conducted by mutual agreement. This is also reflected in the text of Resolution A36-22,[24] the effect of which is that the application of the European Union Emissions Trading Scheme (EU ETS) to non-EU ICAO States' airlines is dependent on mutual agreement of ICAO Member States. It is understandable that for this reason the outcome of the 36th Session of the Assembly is widely referred to as a 'stalemate' on emissions.

3. COP-15 and the Copenhagen Accord

Although the majority view may be that it was a failure, COP-15 did agree with the Copenhagen Accord,[25] which comprises *inter alia* the following specific goals: to take action to meet the objective of reducing global admissions 'so as to hold the increase in global temperature below 2 degrees Celsius';[26] to enhance international cooperation to build resilience in developing countries; and to establish a mechanism to mobilize financial resources from developed countries[27] so as to 'reduce emissions from deforestation and forest degradation (REDD-plus), adaptation, technology development and transfer and capacity-building, for enhanced implementation of the [UNFCCC]'[28] through investments approaching USD 30 billion for the period 2010–2012 and USD 100 billion per year by 2020 to 'address the needs of developing countries'.[29] Nonetheless, there was no decision taken at Copenhagen on how international aviation emissions could be treated.

The ICAO Programme of Action on International Aviation and Climate Change attempts to strike a balance between views of 190 Member States and is said to '[represent] their collective will and determination to act in a coherent and cooperative

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[22] *Ibid*.

[23] ICAO, 'Note by ICAO: Update on the Continuing Progress of ICAO on International Aviation and Climate Change: Ad Hoc Working Group on Long-Term Cooperative Action under the Convention', Bonn, 10–14 Aug. 2009, <http://unfccc.int/resource/docs/2009/smsn/igo/059.pdf>, 22 Aug. 2010, para. 6.

[24] ICAO, Assembly Resolution A36-22, 'Consolidated Statement of Continuing ICAO Policies and Practices Related to Environmental Protection', 27 Dec. 2007, <www.icao.int/icao/en/env/A36_Res22_Prov.pdf>, 18 Nov. 2010, Appendix L.

[25] UNFCCC, Decision 2/CP.15, 'Copenhagen Accord', December 2009, <http://unfccc.int/resource/docs/2009/cop15/eng/l07.pdf>, 13 Aug. 2010.

[26] *Ibid*., paras 1–2.

[27] *Ibid*., para. 6.

[28] *Ibid*., para. 8.

[29] *Ibid*., para. 8.

manner to address international aviation and climate change'.[30] This provides some evidence of continuing progress of ICAO policies and practices for environmental protection and climate change in the period between the 36th and 37th Sessions of the Assembly.[31]

4. Pre-assembly: Towards a Draft Resolution

As the 37th Session of the Assembly opened against the backdrop of the Assembly Resolution A36-22 stalemate and the disappointing conclusion of the COP-15, it was expected that pressure on the ICAO process would increase and, moreover, develop high expectations for ICAO to develop and adopt more ambitious policies on international aviation and climate change.[32] According to its Pre-Assembly Environment Report 2010, ICAO intended to do its utmost to make 'further progress on the recommendations of its High-Level Meeting on International Aviation and Climate Change and Conference on Aviation and Alternative Fuels, in support of the negotiation process on a future climate change agreement'.[33]

As to potential implementation strategies, the Pre-Assembly Environment Report 2010 reiterates the preference of ICAO to use cooperative sectoral approaches and sector-specific actions for the international aviation sector and wishes to continue to look additionally to the 'possible development of instruments for financing mitigation and adaptation activities using funds collected through fiscal policies (e.g., levies) for international aviation'.[34]

The President of the Council created an informal group comprising Directors General of Civil Aviation from nineteen States[35] and tasked them with assisting the President in preparing a draft resolution text on international aviation and climate change. The group met twice ahead of the 37th Session, in March and June 2010. The meetings focused primarily on three key issues:

(1) exploration of more ambitious goals;
(2) development of a framework for MBMs; and
(3) elaboration of measures to assist States.

The draft resolution text was considered by the Council, and after a 'substantial exchange of views, it was not able to agree on a text to be forwarded to the Assembly'.[36]

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[30] ICAO, 'Statement from the International Civil Aviation Organization (ICAO) to the Thirty-Second Session of the UNFCCC Subsidiary Body for Scientific and Technological Advice (SBSTA32)', 31 May–9 Jun. 2010, Bonn, <www.icao.int/icao/en/env/sbsta-32.pdf>, 1 Oct. 2010.

[31] ICAO, 'Consolidated Statement of Continuing ICAO Policies and Practices Related to Environmental Protection – Climate Change', A37-WP/25, EX/8, 21 Sep. 2010, <www.icao.int/icao/en/assembl/a37/wp/wp025_en.pdf>, 27 Sep. 2010.

[32] *Supra* n. 31.

[33] *Supra* n. 9.

[34] *Ibid*.

[35] Australia, Belgium, Brazil, Canada, China, France, Germany, India, Japan, Mexico, Nigeria, Republic of Korea, Russian Federation, Saudi Arabia, Singapore, South Africa, United Arab Emirates, United Kingdom, and United States.

[36] *Supra* n. 10, paras 17.3.12–17.3.14.

Thus, at the start of the 37th Session of the Assembly, the guiding principle was for the design and implementation of MBMs for international aviation and emphasis for the call for establishment under a global framework,[37] in the absence of an agreed upon draft resolution text.

5. Assembly Resolutions A37-18 and 19: The General Provisions

The ICAO's 37th Session of the Assembly took place from 28 September to 8 October 2010 and 'agreed to a historic agreement on aviation and climate change',[38] adopting two key resolutions:

- Assembly Resolution A37-18: 'Consolidated Statement of continuing ICAO policies and practices related to environmental protection – General provisions, noise and local air quality'; and
- Assembly Resolution A37-19: 'Consolidated Statement of continuing ICAO policies and practices related to environmental protection – Climate change.'

Assembly Resolutions A37-18 and 19 supersede Resolution A36-22 and, therefore, constitute the updated 'Consolidated Statement of continuing ICAO policies and practices related to environmental protection'.[39] Resolution A37-18 sets out the general provisions on environmental protection and, above all, declares that ICAO 'is conscious of and will continue to address the adverse environmental impacts that may be related to civil aviation activity and acknowledges its responsibility and that of its Member States to achieve maximum compatibility between the safe and orderly development of civil aviation and the quality of the environment',[40] a significant amendment to the first declaration in Assembly Resolution A33-7 almost ten years before. Assembly Resolution A37-18 enumerates the overarching objectives of ICAO and Member States: to 'limit or reduce the *impact*' of aircraft noise on people, aviation emissions on local air quality, and GHG emissions on the global climate. The effect of Assembly Resolution A37-18 is the encouragement of action by Member States and other parties involved to 'limit or reduce international aviation *emissions* affecting local air quality through *voluntary* measures and to keep ICAO informed'.[41]

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[37] ICAO, 'International Aviation and Climate Change – Proposal for Assembly Resolution', A37-WP/262, EX/53, 21 Sep. 2010, <www.icao.int/icao/en/assembl/a37/wp/wp262_en.pdf>, 27 Sep. 2010, Appendix A-8.

[38] ICAO, 'ICAO Member States Agree to Historic Agreement on Aviation and Climate Change', Press Release PIO 14/10, 8 Oct. 2010, <www2.icao.int/en/Assembly37newsroom-public/Documents/ICAO%20Member%20States%20Agree%20To%20Historic%20Agreement%20On%20Aviation%20And%20Climate%20Change.pdf>, 15 Oct. 2010.

[39] It was further noted that the reservations entered by States would be recorded in the proceedings of the meeting. Source: ICAO, 'Plenary Action Sheet No. 2', <www.icao.int/Assembly37/Docs/action_2_en.pdf>, 12 Dec. 2010.

[40] *Supra* n. 10, 17-6.

[41] ICAO, Assembly Resolution A37-19, 'Consolidated Statement of Continuing ICAO Policies and Practices Related to Environmental Protection – Climate Change', Doc. A37-WP/402, P/66, 7 Oct. 2010, <www.icao.int/icao/en/assembl/a37/wp/wp402_en.pdf>, 12 Oct. 2010, 17–20, *emphasis added*.

It should be remembered that Article 24 of the Chicago Convention provides that 'no unilateral action should be taken and no charges and taxes should be imposed on developing countries, especially those related to emissions'.[42] Furthermore, Article 15 of the Convention contains provisions relating to airport and similar charges. The provisions are supplemented by ICAO policy guidance issued in 2009, *Policies on Charges for Airports and Air Navigation Services*,[43] which contains reference to noise and emissions-related charges. Assembly Resolution A37-18 reiterates that 'such charges should be based on the costs of mitigating the environmental impact of aircraft engine emissions to the extent that such costs can be properly identified and directly attributed to air transport'[44] and that following the ICAO Council's adoption of an interim policy statement in 1996[45] on emission-related charges and taxes, the 2009 guidance strongly recommends that 'any such levies be in the form of charges rather than taxes, and that the funds collected should be applied in the first instance to mitigating the environmental impact of aircraft engine emissions'.[46]

6. Assembly Resolution A37-19: The Specific Provisions

In its Report to the 37th Session of the Assembly on Climate Change, the Executive Committee addresses more specifically the likely steps required for establishing a framework for MBMs and the mutual agreement issue on application of emissions trading to international aviation. The report suggests that 'States seeking to apply emissions trading to international aviation engage with other States whose carriers would be affected, with a view to seeking a mutually agreeable way forward, *if possible*'[47] and expresses the expectation that States will on 'receiving such proposals engage constructively with the proposing States'.[48] Then, in Assembly Resolution A37-19, the Assembly requests the Council 'to undertake work to develop a framework for MBMs in international aviation … for consideration by the 38th Session of the ICAO Assembly'[49] with the support of Member States.

In the meantime, Member States are urged to 'respect the guiding principles[50] … when designing new and implementing existing MBMs for international aviation, and to engage in constructive bilateral and/or multilateral consultations and negotiations with other States to reach an agreement'.[51] Additionally, the Assembly recognizes

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[42] *Supra* n. 41.

[43] ICAO, 'Policies on Charges for Airports and Air Navigation Services, Doc. 9082, 8th edn (2009)', <www.icao.int/icaonet/dcs/9082.html>, 11 Oct. 2010.

[44] ICAO, Assembly Resolution A37-19, *supra* n. 41, 17–19. The Resolution text as adopted is available at <www.icao.int/env/A37_Res19_en.pdf>, 19 Dec. 2010.

[45] ICAO, 'Council Resolution on Environmental Charges and Taxes, Adopted on 9 Dec. 2003', <www.icao.int/icao/en/env/taxes.htm>, 21 Jan. 2011.

[46] *Ibid.*, 17–20.

[47] *Supra* n. 10, 17-4, *emphasis added*.

[48] *Ibid*.

[49] ICAO, Assembly Resolution A37-19, *supra* n. 41, Annex, paras 13–14.

[50] The guiding principles are detailed *infra*. See ICAO, Assembly Resolution A37-19, *supra* n. 41, Annex, 17-7.

[51] ICAO, Assembly Resolution A37-19, *supra* n. 41, paras 13–14.

the importance of voluntary carbon offsetting schemes in the short term as a pragmatic way of offsetting CO_2 emissions and, to that end, 'invites States to encourage their operators wishing to take early actions to use carbon offsetting, particularly through the use of credits generated from internationally recognized schemes such as the CDM [Clean Development Mechanism]'.[52]

The ICAO Secretary General emphasized four 'key premises' in Assembly Resolution A37-19, as acknowledged by the Council, on which to base work on international aviation and climate change under ICAO, which are in summary:

(1) no attribution of obligation to individual States, addressing emission from the international aviation sector as a whole not specific obligations for individual States or their domestic aviation sector;
(2) clear separation between decisions taken by ICAO and the principles and negotiations under the UNFCCC;
(3) no decision will be taken to limit or affect the sustainable development of international aviation under the provisions of the Chicago Convention; and
(4) defining global solutions that will be applicable.[53]

Assembly Resolution A37-19 contains two additional, specific provisions. The first of these provisions is a reaffirming declaration that ICAO is the most appropriate forum for future discussions on solutions to international aviation emissions including MBMs, which it should lead and, at the same, ensure that the solutions do not impact negatively on the growth of the sector. The second specific provision emphasizes the importance of cooperation between ICAO, Member States, and other organizations towards achieving a medium-term 'aspirational' goal of CNG from 2020.

In Assembly Resolution A37-19, the Assembly requests that the Council:

> ensure that the ICAO exercise continuous leadership on environmental issues relating to international civil aviation, including GHG emissions … [and to] … continue to cooperate with organizations in policy-making in the field [of technical solutions and market-based measures to limit or reduce the environmental impact of aircraft engine emissions], notably with the Conference of the Parties to the UNFCCC.[54]

The Assembly reiterates that ICAO should 'continue to provide the forum to facilitate discussions on solutions to address aviation emissions … [and that] … emphasis should be on those policy options that will reduce aircraft engine emissions without negatively impacting the growth of air transport …'.[55]

The second specific provision to be found in Assembly Resolution A37-19 is that ICAO and its Member States and relevant organizations will 'work together to strive to achieve a medium-term global aspirational goal of keeping the global net carbon

[52] *Ibid*., para. 19.
[53] *Supra* n. 10, para.17.3.37.
[54] ICAO, Assembly Resolution A37-19, *supra* n. 41, para. 2.
[55] *Ibid*., para. 3.

emissions from international aviation from 2020[56] at the same level',[57] taking into account the following six points:[58]

(1) the special circumstances and respective capabilities of developing countries;
(2) that the different circumstances, respective capabilities, and contribution of States to the concentration of aviation GHG emissions in the atmosphere will determine how each State may contribute to achieving the global aspirational goals;
(3) that some States may take more ambitious actions prior to 2020, which may offset an increase in emissions from the growth of air transport in developing States;
(4) the maturity of aviation markets;
(5) the sustainable growth of the international aviation industry; and
(6) that emissions may increase due to the expected growth in international air traffic until lower emitting technologies and fuels and other mitigating measures are developed and deployed.[59]

ICAO also agreed to review the goals put forward in Resolution A37-19, as always, during its next Assembly in 2011, 'in light of progress towards the goal, new studies regarding the feasibility of achieving the goal, and relevant information from the States'.[60] This will surely coincide with the work being undertaken by Member States to develop a framework for MBMs, which will come under consideration by the time the next Assembly meets.

7. Assembly Resolutions A37-18 and 19: An Analysis

Assembly Resolutions A37-18 and 19 present three important areas that raise query and demand further analysis: the legitimacy of ICAO's self-declaration of continuous leadership, whether ICAO is the appropriate forum for a global framework on international aviation emissions, and what is the relationship between ICAO's guiding principles[61] for MBMs and the EU ETS.

7.1. Continuous leadership?

Following the announcement of Assembly Resolution A37-19, ICAO issued a press release, 'reaffirming its leadership role, the meeting adopted a comprehensive resolution

[56] On the basis that although the total aircraft emissions that affect the global climate and local air quality are expected to grow in absolute terms, 'aviation's noise and emissions footprint is, however, predicted to grow at a rate slower than the demand for air travel and on a per-flight basis; efficiency is expected to improve throughout the period (to 2020)'. Source: ICAO, Assembly Resolution A37-19, *supra* n. 41, 17-2.

[57] ICAO, Assembly Resolution A37-19, *supra* n. 41, para. 6.

[58] *Ibid*.

[59] *Ibid*.

[60] *Ibid*.

[61] The guiding principles are detailed *infra*. See ICAO, Assembly Resolution A37-19, *supra* n. 41, Annex, 17-7.

to reduce the impact of aviation emissions on climate change'[62] and went on to explain that in 'solidifying its global influence … [ICAO] signed numerous agreements, including cooperation agreements with regional civil aviation organizations and bodies from around the world',[63] drawing a 'roadmap for action through 2050'.[64] Assembly Resolution A37-19 requests the Council to assume authority to lead and monitor ICAO in this regard.

It is interesting to note that Agenda Item 17 at the 37th Session of the Assembly, 'Environmental protection: Development of a global framework for addressing civil aviation CO_2 emissions', which served as the basis for the subsequent exchange of ideas at the Assembly, was presented as Working Paper 217 by the International Air Transport Association (IATA) in its representative capacity.[65] The industry adopted the 'Aviation Industry Resolution on CNG from 2020 and a Global Framework Approach to Manage Aviation Emissions'[66] ('the Industry Resolution'), which comprised three parts:

(1) endorsement of the 'continuing efforts of governments to develop a comprehensive global carbon emissions management framework under ICAO as opposed to a patchwork quilt of unilateral national and/or regional plans';
(2) agreement that 'such a framework gives due consideration to the special needs of developing countries and the maturity of aviation markets, while ensuring a level playing field amongst operators'; and
(3) broad encouragement of ICAO and governments to 'gain endorsement at the 37th triennial ICAO Assembly for a global framework (or globally accepted approach) to limit and reduce aviation emissions consistent with industry's proposals'.[67]

Unquestionably, the Industry Resolution demonstrates the industry's general support for ICAO to continue as the appropriate forum for the development of a global management framework that is fair to and workable for both developed and developing countries. The Industry Resolution also encourages ICAO and Member States to persist in discussions towards a consensus. While the industry's position supports the perception that cooperation is *de rigueur*, it also cautions governments that policy responses should be 'cost-effective, equitable and globally coordinated through ICAO'[68] and reminds governments that the industry, already in a weakened financial position and threatened further by 'increasing and costly regulatory burdens, including taxes, charges and economic

[62] *Supra* n. 39.
[63] *Ibid*.
[64] *Ibid*.
[65] Representing the civil aviation industry ('the industry') alongside the Airports Council International (ACI), Civil Aviation Navigation Services Organization (CANSO), International Air Transport Association (IATA), International Business Aviation Council (IBAC), and International Coordinating Council of Aerospace Industries Associations (ICCAIA).
[66] ICAO, 'Agenda Item 17: Environmental Protection – Development of a Global Framework for Addressing Civil Aviation CO_2 Emissions', Presented by IATA, A37-WP217, EX/39, 15 Oct. 2010, <www.icao.int/icao/en/assembl/a37/wp/wp217_en.pdf>, 27 Oct. 2010.
[67] *Ibid*., Appendix.
[68] See *supra* n. 67.

measures',[69] is unlikely to afford investment in the seemingly most effective means presently by which to reduce CO_2 emissions: new aircraft.

That the industry supports a global framework under ICAO as opposed to what it calls 'a patchwork quilt of unilateral national and/or regional plans' is also notable.[70] Although it is admirable that the industry supports a consistently fair and justifiable global approach, particularly as a metaphorical 'patchwork quilt' of application means unequal treatment and implications for economic distortions and competition, it would seem more unreasonable that the potentially negative effect of the inconsistent implementation merits waiting for the arrival at a perhaps yet utopian notion of global consensus. What must be remembered is that even though the Industry Resolution evidences an agreement, it is 'only' at industry level – of course, the industry share the same concerns and so are of one mind. However, what about the policy dimension? ICAO Member States' non-agreement – disagreement on regulatory approaches to managing carbon emissions, whether taken nationally, regionally, or yet in draft form – presents considerably greater obstacles to reaching a consensus than unanimity of the industry position.

As if to lay additional hurdles in its path, the industry calls for deference with respect to how the so-called 'special needs' of developing countries should weigh into policy decisions and, moreover, that governments should ensure 'a level playing field' among operators. Almost in unison with the industry's position, developing countries have also voiced their support for ICAO's continuous leadership. In Cuba's submission to the 37th Session of the Assembly, *Strengthening ICAO's Leadership in Emissions Trading*,[71] its delegation remarked that developing countries recognize and promote 'the regulatory work of the ICAO and the ICAO CAEP in analyzing the impact of aviation on the environment and how to mitigate this, as well as the responsibility of the States in this respect'[72] and outlined how 'unilateral measures in this area that affect third world or developing countries create new forms of additional dependence and increase economic inequality',[73] citing the unilateral measures taken by the EU in the context of the EU ETS.[74] This should be taken as evidence in this regard of the supporting sentiment of developing countries.

This is not the first time ICAO has been criticized on effectiveness of its jurisdiction, governance, and action in environmental matters; however, as the ICAO Working Group on Policy Governance conducted a *Review of International Governance*[75] in 2009 on the organization's need to update the Chicago Convention, including Contracting State reservations:

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[69] *Ibid*.

[70] *Ibid*., Appendix.

[71] See Cuba's Submission to 37th Assembly, 'Strengthening ICAO's Leadership in Emissions Trading', A37-WP271, EX/56, 21 Sep. 2010, <www.icao.int/icao/en/assembl/a37/wp/wp271_en.pdf>, 17 Nov. 2010.

[72] *Ibid*., 1.

[73] *Ibid*.

[74] See *Air Transport Association (and Others) v. Secretary of State for Energy and Climate Change* [2010] EWHC 1554 (Admin).

[75] ICAO, 'Review of International Governance (Chicago Convention)', Working Paper C-WP/13416 (22 Jun. 2009).

> [I]t is sometimes considered that customary law is self-sufficient whereas in other cases it is deemed necessary to enshrine it in the Convention. ICAO's practice has created 'customary' competencies, but entails fragility as a Contracting State could in theory dissociate itself from this consensus by reservation and, for example, refuse security audits or deny ICAO's jurisdiction and action on environmental matters. It may also lead to a conflict of jurisdiction with other organizations holding explicit competencies by treaty in the same fields, such as UNFCCC in the case of environment.[76]

It might also go without saying, but another potential source of the relative inertia in which ICAO operates is that it must consider its diverse membership. With respect for industrialized and developing countries, ICAO attempts ambitiously to recognize:

> the different circumstances, respective capabilities and contribution of developing and developed States to the concentration of aviation greenhouse gas emissions in the atmosphere will determine how each State may contribute to achieving … global aspirational goals.[77]

7.2. Appropriate Forum?

It is no surprise that there was no reference made to environmental protection or even the environment in 1944; the post-war, industrial year of finalizing the Chicago Convention, Article 44 of which sets out the objectives of ICAO.[78] Although it is not charged per se with environmental concerns of civil aviation, ICAO has dealt with certain aspects thereof for some time now. The (current) Annex 16[79] to the Chicago Convention, for instance, deals directly with environmental protection from aircraft noise and aircraft engine emissions. Volume I of Annex 16 enumerates steps taken to adopt measures to reduce the impact of aircraft noise since the introduction of the first-generation jet aircraft in the early 1960s whereas Volume II focuses on aircraft engine emissions with specific reference to setting industry standards as early as 1982 to limit carbon monoxide and nitrogen oxides. There is as of yet, however, no express mention of CO_2.

On the face of it, the ICAO Council's (self-)declaration of de facto competence to monitor the development of a global framework for limiting or reducing the impact of international aviation GHG emissions with ICAO as the most appropriate forum for discussions between Member States and other organizations seems appropriate.

ICAO concluded memoranda of cooperation during its 37th Session of the Assembly with two regional organizations, the African Union and EU, and four regional civil aviation bodies: the Arab Civil Aviation Commission, African Civil Aviation Commission, European Civil Aviation Conference, and Latin American Civil Aviation Commission. The memoranda plainly depict the existence of regional assistance and cooperation with ICAO as hub. Upon closer examination, the EU has intimated that the basis of the agreement between the European Commission (EC), ICAO, US Federal Aviation Administration, and IATA is the establishment of a framework 'for developing cooperation activities with ICAO in the fields of aviation safety, aviation security, air traffic

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[76] *Ibid*.
[77] *Supra* n. 25.
[78] Chicago Convention, *supra* n. 7, 18.
[79] See 'Annexes 1–18 of the Convention on International Civil Aviation, International Civil Aviation Organization, vols I and II', <www.icao.int/icaonet/anx/info/annexes_booklet_en.pdf>, 2 Jan. 2011, 29–31.

management and environmental protection'.[80] In other words, fuelled by this particular success, ICAO proclaims itself as the 'forum for cooperation in all fields of civil aviation among 190 Contracting States'.[81] As maintained by Assembly Resolutions A37-18 and 19, the agreements recognize ICAO as the first UN Agency to 'lead a sector in the establishment of a globally recognized agreement for addressing CO_2 admissions'.[82] This goes beyond the simple declaration on the appropriate forum question to the provision of some evidence to suggest that the ICAO is the *successful* forum.

7.3. MBMs and the EU ETS?

MBMs for the limitation and reduction of aviation emissions include emissions trading, emissions-related levies such as charges, taxes, and emissions offsetting. As mentioned *supra*, Assembly Resolution A35-5 called for the development of an open emissions trading system for international aviation that should include 'key elements such as reporting, monitoring, and compliance, while providing flexibility to the maximum extent possible consistent with the UNFCCC process'.[83] The draft guidance on the use of emissions trading published by ICAO includes MBM-specific guiding principles.[84] ICAO Member States should ensure that MBMs, *inter alia*:

- support sustainable development of the international aviation sector;
- support the mitigation of GHG emissions from international aviation;
- contribute towards achieving global aspirational goals;
- are transparent and administratively simple;
- are cost-effective;
- should not be duplicative;
- should minimize carbon leakage and market distortions;
- ensure fair treatment of the sector;
- should not impose inappropriate economic burden on international aviation;
- should have appropriate access to all carbon markets;
- should include *de minimis* provisions; and
- that where revenues are generated from MBMs, the revenue should be applied to mitigating the environmental impact of aircraft engine emissions.[85]

The EU, whose position follows the implied development rationale, advocates for the linking of carbon credits and the mutual recognition of emission limitation, reduction, and trading schemes and has, thus, called Assembly Resolutions A37-18 and 19 a

[80] EU, 'Progress Update – International Civil Aviation Organization 37th Session', MEMO/10/480, Brussels, 8 Oct. 2010, <http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/10/480>, 22 Oct. 2010.
[81] *Supra* n. 39.
[82] *Ibid*.
[83] ICAO, 'Environment Branch: Market-Based Measures', <www.icao.int/env/MarketBasedMeasures.htm>, 18 Oct. 2010.
[84] ICAO, Assembly Resolution A37-19, *supra* n. 41, Annex, 17-7.
[85] *Ibid*.

'breakthrough' agreement on the imperative role that MBMs play in the deal with aviation emissions. Assembly Resolutions A37-18 and 19 do merit prima facie being called a 'breakthrough' in that their texts refrain from the restrictive Assembly Resolution A36-22 'mutual agreement'[86] requirement, the effect of which now signals the end of that previous stalemate on MBMs. In response to the ICAO's public announcement of Assembly Resolutions A37-18 and 19, EU Commissioner for Climate Action Connie Hedegaard said: 'the deal is a good basis for proceeding swiftly with the inclusion of aviation in the EU's ETS from 2012 as foreseen by the EU legislation[87] in force'.[88]

The EU ETS, established under Directive 2003/87/EC,[89] creates the world's first international market-based system ('cap-and-trade') of nationally allocated rights across the EU based on the proportion of industry in each EU Member State, which are bought and sold. The EU ETS is an open trading scheme, where so-called 'carbon credits' are marketable rights or licenses to pollute, which are traded freely on the market, irrespective of sector in accordance with National Allocation Plans (NAPs).[90] Each NAP prescribes each aircraft operator an emissions quota; thus, each entity is encouraged to choose the least costly option to meet their respective quota. The allowances allocated to the aviation sector will be offset in the final two planned phases against the aviation GHG emissions as set out in Directive 2008/101/EC,[91] which amends Directive 2003/87/EC[92] to include 'aviation activities' in the EU ETS.[93] The agreement to include aviation in the EU ETS was adopted by the European Parliament in its resolution on climate change[94] and is estimated to lead to a reduction of 194 million tonnes of CO_2 across the EU by 2020.

In keeping with its traditional regulatory approach, from the *First Environmental Action Programme*, which '[set] out policy on the environment for the period 1973–1976 … [and placed] the environment … firmly on the European political agenda',[95] the EU's strategy for achieving its 2020 goals is through incremental measures. Three phases of EU ETS validate the move from the Kyoto Protocol[96] project-based to EU ETS sector-based emissions system. EU ETS Phase I (2005–2007) covered over 11,500 energy-intensive installations across the EU, which together represents over half of the EU's

[86] *Supra* n. 25, Appendix L.

[87] The Commissioner's reference here is to Directive 2008/101/EC of the European Parliament and of the Council of 19 Nov. 2008 amending Directive 2003/87/EC so as to include aviation activities in the scheme for greenhouse gas emission allowance trading within the Community, OJ L 8/3, 31 Jan. 2009.

[88] EU, 'Breakthrough in Climate Change Talks at UN Aviation Body', MEMO/10/482, Brussels, 9 Oct. 2010, <http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/10/482>, 12 Oct. 2010.

[89] Directive 2003/87/EC of the European Parliament and of the Council establishing a scheme for greenhouse gas emissions allowance trading within the Community and amending Council Directive 96/61/EC(c), OJ L 275/32, 25 Oct. 2003.

[90] Directive 2008/101/EC of the European Parliament and of the Council of 19 Nov. 2008 amending Directive 2003/87/EC so as to include aviation activities in the scheme for greenhouse gas emission allowance trading within the Community, OJ L 8/3, 13 Jan. 2009.

[91] *Ibid*.

[92] *Supra* n. 90.

[93] Directive 2009/29/EC of the European Parliament and of the Council of 23 Apr. 2009 amending Directive 2003/87/EC so as to improve and extend the greenhouse gas emission allowance trading scheme of the Community, OJ L 140/63, 23 Apr. 2009.

[94] European Parliament, *Resolution on Climate Change*, OJ C 287 E/344, 29 Nov. 2007.

[95] M. Lee, *EU Environmental Law: Challenges, Change and Decision-Making* (Oxford: Hart Publishing, 2005), 1.

[96] Reference to the Kyoto Protocol measures will be discussed in further detail *infra*.

carbon emission.[97] EU ETS Phase II (2008–2012) built on the first phase to include aviation and the major manufacturing industries such as power plants, oil refineries, iron and steel plants, and various factory installations making goods such as cement, glass, lime, brick, ceramics, pulp, and paper. The number of allowances available to aircraft operators in 2012 will be capped at 97% of total emissions from the aviation sector between 2004 and 2006 ('the emissions reference point'). The final planned EU ETS Phase III (2013–2020) significantly broadens the scope for new sector activities and gases, including the release of CO_2 and perflurocarbons from certain other activities, and expands the previously limited definition of combustion contained in previous phases to include all combustion of fuel. In EU ETS Phase III, aviation allowances will be further capped at 95% of the emissions reference point.

So in short, the EC 'saw the deal [Regulation A37-19] as an endorsement of an EU decision in 2008 to include aviation in the EU ETS from 2012'.[98] Interestingly, the ICAO Assembly also requested *vis-à-vis* Assembly Resolutions A37-18 and 19 that the Council 'undertake a study on the possible application of CDM of the Kyoto Protocol to international aviation',[99] raising both questions again as to whether ICAO is the appropriate forum for international aviation emissions and subsequently whether this might be a route to mutual respect between the two processes: to simultaneously acknowledge the synergy between the UNFCCC and ICAO processes and reconcile the principles of CBDR and non-discrimination and achieve some commonality. This might provide further impetus for the future move from Kyoto project-based MBM to ETS-equivalent sector-based global MBM for emissions, or at least develop the link between the two.

The prospect for development in this area may be limited, however, particularly in the *milieu* of the recent challenge that was brought initially as an application for judicial review[100] in December 2009 by the US aviation industry, led by the Air Transport Association of America (ATA) and US aircraft operators United Airlines, Continental Airlines, and American Airlines, to contest the national measure[101] and as some attempt to indirectly challenge the inclusion of aviation activities in the EU ETS. The application was filed in the United Kingdom as it is the administering EU Member State under the EU ETS for the three particular airlines named in the application. In the meantime, IATA and National Airlines Council of Canada filed amicus curiae briefs with UK High Court, so the opposition is not exclusive to the US industry. IATA Director General and Chief Executive Officer (CEO) Giovanni Bisignani, who had previously declared the EU ETS 'illegal', warned the EU in December 2009 that States outside the EU would take legal action over their airlines' inclusion in the scheme.[102]

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[97] EU, 'Questions and Answers on Emissions Trading and National Allocation Plans', MEMO/05/84, Brussels, 8 Mar. 2005, <http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/05/84&format=HTML&aged=1&language=EN&guiLanguage=en>, 18 Oct. 2010.

[98] Euractiv, 'EU Sees Aviation Deal as Green Light for Emissions Trading', 18 Oct. 2010, <www.euractiv.com/en/climate-environment/eu-sees-aviation-deal-green-light-emissions-trading-news-498688>, 20 Oct. 2010.

[99] ICAO, Assembly Resolution A37-19, *supra* n. 41, para. 24(m).

[100] Under the UK Civil Procedure Rules, Part 54.

[101] The UK implementing regulations: UK Aviation Greenhouse Gas Emissions Trading Scheme Regulations 2010, S.I. 2010/1996.

[102] 'IATA Enters Legal Case Brought by ATA and Three US Airlines against the UK over the Aviation EU ETS', *Green Air Online*, 1 Mar. 2010, <www.greenaironline.com/news.php?viewStory=774>, 10 Mar. 2010.

In May 2010, the UK Administrative Court of the High Court of Justice referred the case[103] to the European Court of Justice (ECJ) under ex-Article 234 on the questions of the validity and interpretation of the ETS and Aviation ETS Directives. The US parties argue against the inclusion of aviation activities in the EU ETS, and since the UK Courts have no jurisdiction to pronounce on the validity of EU legislation, it is not surprising that the case was referred to the ECJ who can make a decision on the matter.[104] Of course, Directives are binding on EU Member States as to the result to be achieved under ex-Article 249 TEC (Article 288 of the Treaty on the Functioning of the European Union (TFEU)): 'the institutions shall adopt regulations, directives, decisions, recommendations and opinions'.

The ECJ may rule on the validity of the ETS and Aviation ETS Directives and/or clarify the EU measure under ex-Article 234(1)(b) TEC (Article 267 TFEU), the latter of which will clarify to the UK Court questions on the compatibility of the national measure with the Directives. Given the complexities surrounding the challenges, it is difficult to speculate on the ECJ's position, but what is certain is that the ECJ will take into account the unilateral requirement and enforcement of the EU ETS provisions with respect to aviation activities that breach the Chicago Convention[105] in the context of considering the validity of the UK's implementing regulations.[106] EU Member States and the United States are Contracting States to the Chicago Convention, which underlines the principles of international law relating to sovereignty and jurisdiction.

To be precise, Article 1 of the Chicago Convention recognizes that every State has 'complete and exclusive sovereignty over the airspace above its territory'. The US parties argue that the exercise of extraterritoriality by the EU to 'capture the cost' of the total emissions on a flight from, say, Los Angeles to London stands in breach of the principles of sovereignty and jurisdiction.

Furthermore, Article 15 of the Convention requires that 'no fees, dues or other charges shall be imposed by any Contracting State in respect of the right of transit over or entry into or exit from its territory of any aircraft of a Contracting State or persons or property thereon' and that any public airport shall 'be open under uniform conditions of all the other Contracting States'. Therefore, as a Contracting State, the UK government's transposition of the Aviation ETS Directive to include aircraft operators from non-EU Contracting States in the EU ETS and the act of subjecting them, if so interpreted, to 'fees, dues or other charges' seems prima facie to indicate a breach of the Convention rules, the effect of whose subjection is non-discriminatory per se.

The ECJ's much anticipated decision is expected sometime in late 2011 or early 2012.

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[103] *Air Transport Association (and Others) v. Secretary of State for Energy and Climate Change* (2010) EWHC 1554 (Admin).

[104] See Case 314/85, *Foto-Frost v. Hauptzollamt Lübeck-Ost* [1987] ECR 4199, on the ECJ's jurisdiction to determine such matters as they relate to the legality of EU law in accordance with ex-Art. 234 TEC.

[105] Chicago Convention, *supra* n. 7.

[106] See the UK Aviation Greenhouse Gas Emissions Trading Scheme Regulations 2010, S.I. 2010/1996, which came into force on 31 Aug. 2010.

8. Recent Developments: Second Ministerial Conference on Global Environment and Energy in Transport (MEET2)

From 8 to 9 November 2010, approximately one month after the 37th Session of the ICAO Assembly, a number of Ministers and relevant government and international organization representatives responsible for environment and energy in the transport sector met at the Second Ministerial Conference on Global Environment and Energy in Transport (MEET2) in Rome to 'discuss policies and consider measures aimed at reducing GHG and air pollutant emissions from the air transport sector while ensuring adequate development of society through innovations and enhanced international cooperation'.[107]

Representatives of the MEET2 Parties[108] issued the *Ministerial Declaration on Global Environment and Energy in Transport*,[109] supporting the ICAO as the competent UN body[110] on aviation issues and encouraging it to 'continue to lead in developing globally effective measures to address GHG emissions from international aviation'[111] and pledging to 'work collaboratively through the ICAO … to foster [a framework] of action to appropriate address emissions from [international aviation]'.[112]

During MEET2, Giovanni Bisignani said: 'Aviation will go to Cancun with its homework done, under the leadership of ICAO, and with the support of UNFCCC.'[113] In a speech to attendees, Bisignani gave a 'preview' of this homework in the following four messages from industry to governments:

(1) support emissions reductions with improvements in air traffic management;
(2) keep focused on a global approach, reject ineffective regional schemes, and concentrate on developing a global framework for economic measures under ICAO;
(3) not to use the industry as a cash cow but rather consider aviation's important role as an economic catalyst; and
(4) promote this sector's achievements as a role model for others.[114]

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[107] MEET, 'Ministerial Declaration on Global Environment and Energy in Transport', WP29-152-20, 152nd WP.29, 9–12 Nov. 2010, <www.unece.org/trans/doc/2010/wp29/WP29-152-20e.pdf>, 22 Nov. 2010.

[108] Representatives of the following parties: Albania, Algeria, Angola, Australia, Belgium (EU Presidency), Bosnia and Herzegovina, Bulgaria, Egypt, France, Germany, Ghana, Indonesia, Italy, Japan, Montenegro, Morocco, Nigeria, Russian Federation, Serbia, South Africa, Spain, Ukraine, United Kingdom of Great Britain and Northern Ireland, United States of America, Vietnam, and the European Commission.

[109] *Supra* n. 108.

[110] The International Maritime Organization (IMO) is also recognized as the relevant UN body for maritime (shipping) emissions.

[111] *Supra* n. 108.

[112] *Ibid*., para. 8. It should be noted that South Africa, Egypt, Nigeria, Ghana, and Angola have reserved their position on the above paragraph, 'in view of their conviction that the development of global effective measures to address GHG emissions from international aviation and shipping must be considered by the IMO and ICAO in accordance with the provisions and principles of UNFCCC and its Kyoto Protocol'.

[113] IATA, 'Ministerial Conference on Global Environment and Energy in Transport (MEET) in Rome', Speech Given by Giovanni Bisignani, 8 Nov. 2010, <www.iata.org/pressroom/speeches/Pages/2010-11-08-01.aspx>, 14 Nov. 2010.

[114] *Ibid*.

9. Recent Developments: UNFCCC's 16th Conference of the Parties (COP-16) and the Cancun Agreements

The 'skeletal' pledges made at COP-15, contained in the text of the Copenhagen Accord and its Annex, have now been formally approved, elaborated, and incorporated in the UNFCCC process and are 'anchored' in the Cancun Agreement.[115] The consensus achieved on a set of substantive steps forward marks a positive move from previously focusing on the UNFCCC negotiation process and the challenges it typically faces with respect to securing a multilateral agreement to concentrating now on the real substance. The Cancun Agreements also bring in the United States and China. In a press conference following the announcement of the Agreement, EU Commissioner Hedegaard said: 'We have proven that multilateralism can create results'.[116] The Agreements acknowledge that global warming should be limited to no more than two degrees Celsius above the pre-industrial temperature, recognize the pledges made in the Copenhagen Accord including financial commitments and adaptation issues such as REDD, and transparency (and, therefore, accountability) for Monitoring, Reporting, and Verification (MRV) and ICA.[117]

Although UNFCCC's 16th Conference of the Parties (COP-16) fell short of renegotiating the Kyoto Protocol, the collaborative spirit that delivered the Cancun Agreements means that the UNFCCC negotiation process survives today and that the legal pathway towards a legally binding commitment remains open. The alternative to the multilateral negotiation process would be through bilateral agreements between States, but given the global nature of the challenge to change human society, the consensus view seems to be that the multilateralism is more advantageous. In other words, the UNFCCC process has been 'saved' as it might yet deliver. Following COP-16, where delegates walked away with a feeling of success and, for the most part, satisfied that equal concessions were made, there is agreement that the sense of momentum orchestrated by the Mexican presidency contributed to the conclusion of Agreement: a perhaps less than perfect consensus with a previous veto by Bolivia followed by overwhelming applause when put to a vote, meaning the Agreement was considered adopted. The delegates give considerable merit to the competence with which Mexico performed its presidency.

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[115] 'Cancun Agreements' refers hereinafter collectively to the draft texts of the two key decisions adopted by COP-16, 'Outcome of the Work of the Ad Hoc Working Group on Long-Term Cooperative Action under the Convention' (Source: ICAO, 'Draft Decision on the Outcome of the Work of the Ad Hoc Working Group on Long-Term Cooperative Action', <http://unfccc.int/files/meetings/cop_16/application/pdf/cop16_lca.pdf>, 1 Feb. 2011) and CMP-6, 'Outcome of the Work of the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol at Its Fifteenth Session' (Source: UNFCCC, 'Draft Decision on the Outcome of the Work of the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol at Its Fifteenth Session', <http://unfccc.int/files/meetings/cop_16/application/pdf/cop16_kp.pdf>, 22 Jan. 2011).

[116] COP-16/CMP-6 website, 'On-Demand Webcasts', <http://webcast.cc2010.mx/grid_en.html>, 13 Dec. 2010.

[117] The 'anchoring' of Copenhagen pledges is contained in the noted paragraphs of the Long-Term Cooperative Action (LCA) part of the Cancun Agreements, *supra* n. 115, para. 36 (on economy-wide emissions targets), para. 45 (on the request that developing countries develop low-carbon development strategies or plans), para. 49 (on National Adaptation and Mitigation Action plans for developing countries), paras 61–62 (on MRVs), para. 95 (on the fast start pledge from Copenhagen 'approaching USD 30 billion'), and para. 98 (on the Copenhagen commitment to mobilize USD 100 million per year by 2020).

The dialogue will continue at COP-17 in late November 2011 in Durban, South Africa, two years before the expiration of the current Kyoto commitment period. South Africa's regional importance and its being an advanced basic country that is a big emitter, in a distinct category with the likes of Brazil, China, and India, make Durban an important venue; and it has a rather difficult task. Nonetheless, the success of Cancun gives signs of encouragement that parties from developed and developing countries are learning to navigate the UNFCCC negotiation process towards productive outcomes rather than mere squabbling. This positive experience will surely prove to be invaluable to keeping parties on track in Durban not to mention provide momentum towards further, future accords.

It is important to note that the work of the subsidiary bodies, the Subsidiary Body for Implementation (SBI) and the SBSTA, were instrumental to the positive experience and outcomes of COP-16 negotiations. ICAO submitted its 'Assembly Resolution on International Aviation and Climate Change' (Assembly Resolution A37-19) to the SBSTA33,[118] and while it is difficult to ascertain so immediately whether this has had any direct impact on the overall negotiations, the outcomes of the Cancun Agreement will certainly affect future aviation sector negotiations at ICAO and for maritime shipping at the International Maritime Organization (IMO). The EU is due to release its 'Low-Carbon Strategy for 2050'[119] by March 2011, which is likely to also have some effect on next steps for the transport sectors.

It should be mentioned that the private sector would like to see further steps taken towards a legally binding or at least more reassuring framework in the future. Once more stringent targets are set and actions taken in developed countries, as well as targets and frameworks implemented in developing countries, legal certainty will become more evident. The impression in the private sector is that legal certainty will produce more investment opportunities beyond the existing CDM. This will become increasingly important for the private sector on questions of how to secure the requisite credit and how much investment is necessary for a reduction of two or one and a half degrees Celsius. Aside from a feeling of being 'in the dark', there has been widespread concern until recently that governments might just 'walk away'; however, post-Cancun this is certainly less likely to be the case. Nevertheless, the legal certainty would also give greater reassurance to the private sector that governments will not do this.

10. Final Thoughts: Residual Effects

Assembly Resolutions A37-18 and 19 have been heralded as a 'breakthrough' and a 'historic agreement'. The EU has since 'agreed to engage constructively in dialogue with third countries during the implementation of its ETS, notably regarding how to

[118] ICAO, 'Submission to SBSTA33: Assembly Resolution on International Aviation and Climate Change', <www.icao.int/env/Statements/sbsta-33_Item-6a.pdf>, 15 Dec. 2010.

[119] Cancun Agreements, *supra* n. 115, para. 45 (LCA).

deal with emissions from incoming flights from third countries'.[120] Giovanni Bisignani attributes IATA's praise to Assembly Resolutions A37-18 and 19 and warrants them as the 'first and only agreement by governments to manage the emissions of an industrial sector'.[121] Bisignani also intimated that IATA intended to present the sector's progress jointly with ICAO to the COP-16 in December 2010. ICAO must be quite pleased with the opportunity to present its outcomes at COP-16, particularly given the past widespread criticism of its lack of action on environmental matters.

The goals put forward in Assembly Resolutions A37-18 and 19 are 'aspirational' and non-binding targets and are essentially non-specific, meaning it is yet unclear whether an actual reduction will be achieved; they are not necessarily weak in effect. For instance, specific elements of the resolutions include an agreement with two requirements: aircraft emissions must be stabilized and State Action Plans will be introduced. Of course, the most significant, extensive goal is for CNG by 2020, albeit this is far less ambitious than the EU's own line of including aviation in the EU ETS from 2012,[122] calling for a 10% reduction of 2005 baseline levels by 2020 and reducing carbon emissions in the sector by 50% by 2050. The CNG goal seems to also fly in the face of the more comprehensive Kyoto Protocol commitments, effectively allowing emissions to 'grow unabated for the twenty-three years since Kyoto, and only be "offset" voluntarily above their 2020 level by emissions cuts in other industrial sectors. The Kyoto protocol called for aviation emissions to be "limited" or "reduced", that is, within the sector'.[123] Thus, at second glance, one might consider Assembly Resolutions A37-18 and 19 to be too 'historical' as in too late.

Furthermore, the unprecedented number of reservations entered by ICAO Member States to Assembly Resolutions A37-18 and 19[124] appears to evidence a challenge to whether ICAO is the most appropriate forum for international aviation emissions,[125] argued *inter alia* on the basis of its deficiency in making progress and alleged lack of governance. The forum challenge is bound to draw further attention to issues around the effectiveness of the ICAO's governance. Last year, the ICAO Working Group on Policy

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[120] Chicago Convention, *supra* n. 7.

[121] 'IATA Addresses MEET2 on Climate Change', *eTravel Blackboard*, 10 Nov. 2010, <www.etravelblackboardasia.com/article.asp?id=71459&nav=80>, 15 Nov. 2010.

[122] The number of allowances available to aircraft operators in 2012 will be capped at 97% of total emissions from the aviation sector between 2004 and 2006 ('the emissions reference point'). The final planned EU ETS Phase III (2013–2020) significantly broadens the scope for new sector activities and gases, including the release of CO_2 and perflurocarbons from certain other activities and expands the previously limited definition of combustion contained in previous phases to include all combustion of fuel. In EU ETS Phase III, aviation allowances will be further capped at 95% of the emissions reference point.

[123] 'Statement on the Outcome of the International Civil Organization (ICAO) Assembly', *Transport & Environment*, 11 Oct. 2010, <www.transportenvironment.org/News/2010/10/Statement-on-the-outcome-of-the-International-Civil-Aviation-Organisation-ICAO-Assembly>, 20 Oct. 2010.

[124] Specifically ICAO, Assembly Resolution A37-19, *supra* n. 41.

[125] A point made by those attending the 37th Session of the Assembly as part of the International Coalition for Sustainable Aviation (ICSA), who has observer status at the ICAO (including the Aviation Environment Federation, Transport and Environment, and the Environmental Defense Fund); see, for instance, 'UN Assembly (ICAO) Fails to Deliver on Cutting Aviation's Carbon Emissions', *Aviation Environment Federation*, 12 Oct. 2010, <www.aef.org.uk/?p=1118>, 15 Oct. 2010.

Governance reflected on the need for updating of the existing Convention, including reservations entered by Contracting States:

> … it is sometimes considered that customary law is self-sufficient whereas in other cases it is deemed necessary to enshrine it in the Convention. ICAO's practice has created 'customary' competencies, but entails fragility as a Contracting State could in theory dissociate itself from this consensus by reservation and, for example, refuse security audits or deny ICAO's jurisdiction and action on environmental matters. It may also lead to a conflict of jurisdiction with other organizations holding explicit competencies by treaty in the same fields, such as UNFCCC in the case of environment.[126]

The Working Group approved that its review be presented to at the 38th Assembly in 2011, when it is possible that amendments to the Chicago Convention will be proposed and considered. Perhaps, by that stage, a definitive ICAO position will be set alongside any requisite 'powers' of monitoring and enforcement of targets.

Indeed, after thirteen years of little quantifiable success in the environmental arena, some sector-specific environmental organizations question whether ICAO is (still) fit for purpose and whether it should remain at the helm of the international aviation emissions campaign. So, perhaps Assembly Resolutions A37-18 and 19 again demonstrate a 'historical agreement' simply because there has not before been any precedent of this scale.

In any case, looking at Assembly Regulations A37-18 and 19 with the benefit of hindsight and the COP-16, ICAO negotiations may have contributed to the momentum towards greater cooperation between governments, fuelled by tales of successful steps in the direction of the management of the aviation sector's emissions. The UNFCCC encouraged the 37th Session of the Assembly to 'act by taking bold action and adopting a strong Resolution on international aviation and climate change'.[127] Subject to a more generous treatment of the action's boldness and weighing up of the strength of Assembly Resolutions A37-18 and 19, which might in itself lead one to interpret the language of the agreement as truly revolutionary, the positivist interpretation would likely argue that the constructive value of Assembly Resolutions A37-18 and 19 outweighs the actual value, bearing in mind the, at this stage, 'aspirational' and non-binding nature of the goals. The spirit of cooperation and sense of success that the industry and ICAO Member States exhibit on the back of Assembly Resolutions A37-18 and 19 is invaluable and might be a motivating factor for the 'collective will and determination to act in a coherent and cooperative manner to address international aviation and climate change'[128] that is said to be a common characteristic of ICAO Member States.

It is also worth considering that the UNFCCC noted how fundamental it is for the ICAO Assembly to inform the UNFCCC process on 'practical actions to regulate emissions would be a significant contribution from the sector to the outcome of Cancun',[129] which

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[126] *Supra* n. 76.
[127] *Supra* n. 10, 17-8.
[128] *Supra* n. 31.
[129] *Supra* n. 10, 17-8.

effectively demonstrates the industry – government – UN (ICAO and UNFCCC) liaison, and how indispensable it is to the success of the wider UNFCCC negotiation process.

Looking forward, it would appear that the intrinsic value of the spirit of cooperation and sense of success, resounding tenaciously in the industry and among ICAO Member States in the time since the adoption of Assembly Resolutions A37-18 and 19, was at least a positive residue on the minds of government ministers in Cancun. It is not unreasonable to anticipate that the same sense of progress that now rounds out the Cancun Agreement will have a reverse demonstrative effect on the future developments of the ICAO process on international aviation emissions and *vice versa* on future UNFCCC negotiations.

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