TECHNICAL OVERVIEW

BACKGROUND ON THE INTERNATIONAL CIVIL AVIATION ORGANIZATION AND ITS PROCESSES

SUMMARY

In 2013, the International Civil Aviation Organization (ICAO), the UN body responsible for setting standards for international flights, pledged to cap aviation greenhouse gas emissions at 2020 levels, delivering "carbon neutral growth from 2020."[1] The industry has gone even further, committing to reduce their net carbon emissions to half of their 2005 levels by 2050 and improve fuel efficiency by 1.5 percent per year through to 2020.[2] Even with anticipated advances in fuel efficiency and other technologies, civil aviation will need to ensure an additional 7.8 billion tonnes of carbon dioxide emission reductions between 2020 and 2040.[3] The industry will therefore have to supplement technological and operational improvements to reduce emissions with the use of carbon offsets. **In October 2016, the ICAO Assembly will finalize a global market-based measure (MBM) to assist the international aviation industry in achieving its agreed targets.**

Countries are currently developing the components of the MBM, including what types of activities should be eligible. Reducing emissions from deforestation and forest degradation, and sustainable management of forests, conservation of forest carbon stocks and enhancement of forest carbon stocks (collectively referred to as REDD+) is a framework developed under the United Nations Framework Convention on Climate Change (UNFCCC) and included in Article 5 of the Paris Agreement[4] for addressing deforestation by helping society value forests for their carbon sequestration, storage and other services. REDD+ offers incentives to protect, restore and sustainably manage forests and their natural capital, and has almost a decade of proven results. Unlike mitigation activities in other sectors, each REDD+ credit not only avoids one metric tonne of carbon dioxide from being emitted to the atmosphere, but can also protect biodiversity, support local communities and ensure that vital ecosystem functions remain intact. These benefits are bolstered by a comprehensive set of safeguards and standards that ensure conservation and human development outcomes on the ground. **The ICAO MBM can depend on REDD+ to provide the volume of robust offsets it needs to meet its emission reduction targets as well as a multitude of additional benefits in developing countries—including sustainable development, biodiversity conservation and improved human well-being—and to do so with environmental integrity.**

THE ICAO MARKET-BASED MEASURE

In 2010, the 37th ICAO Assembly agreed on high-level principles and aspirational goals to guide the establishment of the MBM, which were further elaborated and revised by the 38th Assembly in 2013. One of the fundamental objectives of the MBM is to support the mitigation of greenhouse gas emissions from international aviation and to advance the sustainable development of the sector. The MBM aims to support the sector in reaching its mitigation targets in a realistic and cost-effective way. Therefore, it is important that the forthcoming MBM ensure the fair treatment of international aviation in relation to other sectors by not imposing inappropriate economic burdens on the sector. The MBM should also promote transparency and simplicity and facilitate appropriate access to all carbon markets.

The accounting and reporting of emissions reductions are crucial for ensuring the environmental integrity of actions taken under the MBM. To prevent the duplication of emissions claimed, the guiding principles call for countries to reflect reductions achieved through MBMs in their national emissions reporting. It is imperative that emissions claimed are not accounted for more than once, as double counting or claiming would artificially inflate reported progress toward the mitigation target and compromise the achievement of the MBM's objectives. Reductions claimed should also minimize leakage of greenhouse gas emissions—wherein reductions in one geography lead to an increase in another geography, resulting in fewer reductions than what is recorded.

The updated MBM guiding principles in 2013 called for common but differentiated responsibilities and respective capabilities to be considered in the development of the MBM, meaning that all countries would be working toward a common goal but may contribute differently or to varying levels, depending on their respective capacities and capabilities.

[1] See ICAO Assembly Resolution A/38-18, Consolidated statement of continuing ICAO policies and practices related to environmental protection — Climate change, available at http://www.icao.int/Meetings/GLADs-2015/Documents/A38-18.pdf.
[2] Air Transportation Action Group. 2013. Reducing Emissions from Aviation through Carbon-Neutral Growth from 2020. https://www.iata.org/policy/environment/Documents/atag-paper-on-cng2020-july2013.pdf.
[3] See Figure 1 of the "Linking Flights and Forest: An Overview for ICAO Policy Makers."For more information, see Petsonk, A. 2016. To understand airplanes' climate pollution, a picture is worth a thousand words. http://blogs.edf.org/climatetalks/2016/02/12/to-understand-airplanes-climate-pollution-a-picture-is-worth-a-thousand-words/?_ga=1.245391884.948298676.1454089063.
[4] United Nations Framework Convention on Climate Change (UNFCCC). 2015. Adoption of the Paris Agreement. FCCC/CP/2015/L.9. https://unfccc.int/resource/docs/2015/cop21/eng/l09.pdf.

For a full list of guiding principles, please see the table below, as well as ICAO's document titled Assembly Resolutions in Force (as of 4 October 2013)[5] and the Report of the Executive Committee on Agenda Item 17 (Section on Climate Change).[6]

Guiding Principles of the MBM (38th Assembly)[7]	
MBMs should support sustainable development of the international aviation sector;	MBMs should recognize past and future achievements and investments in aviation fuel efficiency and in other measures to reduce aviation emissions;
MBMs should support the mitigation of greenhouse gas emissions from international aviation;	MBMs should not impose inappropriate economic burden on international aviation;
MBMs should contribute towards achieving global aspirational goals;	MBMs should facilitate appropriate access to all carbon markets;
MBMs should be transparent and administratively simple;	MBMs should be assessed in relation to various measures on the basis of performance measured in terms of CO2 emissions reductions or avoidance, where appropriate;
MBMs should be cost-effective;	MBMs should include de minimis provisions;
MBMs should not be duplicative and international aviation CO2 emissions should be accounted for only once;	Where revenues are generated from MBMs, it is strongly recommended that they should be applied in the first instance to mitigating the environmental impact of aircraft engine emissions, including mitigation and adaptation, as well as assistance to and support for developing States;
MBMs should minimize carbon leakage and market distortions;	Where emissions reductions are achieved through MBMs, they should be identified in States' emissions reporting; and
MBMs should ensure the fair treatment of the international aviation sector in relation to other sectors;	MBMs should take into account the principle of common but differentiated responsibilities and respective capabilities, the special circumstances and respective capabilities, and the principle of non-discrimination and equal and fair opportunities.

STRUCTURE OF ICAO

The **International Civil Aviation Organization (ICAO)** is a United Nations (UN) body established in 1944 to manage the administration and the governance of the Chicago Convention delineating guidelines and standards around international civil aviation member states are expected to follow.[8] According to the terms of the Chicago Convention, ICAO is made up of an **Assembly**, a **Council**, and a **Secretariat**.[9] Particularly relevant to the decision-making process around the Market-Based Measure (MBM) are the Assembly and the Council:

- The **Assembly** is composed of 191 member states, and normally meets once every three years. At this time, it reviews the work undertaken in ICAO and sets future policy as well as the budget for the subsequent three years. It is during the Assembly's triennial meeting that the MBM, in its near-final form, would be put to a vote. The Assembly tries to make decisions by consensus, but failing this, can pass resolutions via a simple majority.
- The **Council** is elected by the Assembly for three-year terms and is composed of 36 member states. The Council meets several times a year, providing ongoing direction to ICAO's work. It is responsible for adopting and incorporating Standards and Recommended Practices (SARPs) as Annexes into the Chicago Convention. It is in the ICAO Council meetings leading up to the Assembly that the structure of the MBM will be molded, reshaped and refined, before the near-final form is approved as a draft resolution and put forth to the Assembly for voting.

The Council is assisted in its decision-making by many technical committees comprising experts from member states as well as experts from observer organizations representing industry and civil society. Relevant to the MBM is the **Committee on Aviation Environmental Protection (CAEP)**, established in 1983 to assist the Council in formulating new policies and SARPs related to aircraft noise and emissions and aviation environmental impact more generally. CAEP is made up of 28 member states and 10 observer organizations, including the International Coalition for Sustainable Aviation, which represents its civil society members.[10]

[5] International Civil Aviation Organization. 2013. Assembly Resolutions in Force. Doc 10022. Resolution A38-18. http://www.icao.int/Meetings/GLADs-2015/Documents/A38-18.pdf.`

[6] International Civil Aviation Organization. 2013. Report of the Executive Committee on Agenda Item 17. A38-WP/430. http://www.icao.int/Meetings/a38/Documents/WP/wp430_en.pdf.

[7] International Civil Aviation Organization. 2013. Assembly Resolutions in Force. Doc 10022. Resolution A38-18. http://www.icao.int/Meetings/GLADs-2015/Documents/A38-18.pdf.

[8] International Civil Aviation Organization. 2016. *About ICAO*. http://www.icao.int/about-icao/Pages/default.aspx.

[9] For more information, see International Civil Aviation Organization. 2016. *How It Works*. http://www.icao.int/about-icao/pages/how-it-works.aspx.

[10] For more information, including a list of members, see International Civil Aviation Organization. 2016. *Committee on Aviation Environmental Protection (CAEP)*. http://www.icao.int/environmental-protection/Pages/Caep.aspx#Members.

In January 2014, the ICAO Council established the **Global MBM Technical Task Force (GMTF)** within CAEP to support the technical and analytical work around the MBM.[11] It is divided into two main sub-groups:

- The **Emissions Units Criteria (EUC)** subgroup evaluates and recommends eligibility criteria for emissions units, be it offsets and/or allowances. It also assesses the availability of emissions units to satisfy the needs of the aviation sector, and the impact this may have on carbon market supply, demand and price.
- The **Monitoring, Reporting and Verification (MRV)** subgroup makes recommendations on the requirements and procedures for MRV of global carbon emissions from international civil aviation.
- Additionally, the GMTF is pursuing work around emissions unit **registries**, looking at how to keep track of emissions units used to satisfy aviation demand.

In addition to the GMTF and its subgroups, two other groups are relevant to the MBM decision-making process.

The **Alternative Fuels Task Force (AFTF)** was set up in November 2013 to "evaluate the range of potential greenhouse gas emissions reductions (GHG) that could result from the use of alternative fuels in aviation to 2050" by looking at projected alternative fuel production and the life cycle emissions reductions these could provide.[12] The results of the work by the AFTF could influence the magnitude of aviation's emissions post-2020 that would need to be dealt with under the MBM.

Various policy bodies, including the **Environmental Advisory Group (EAG)** comprised of 17 Council Representatives and one observer organization (the International Air Transport Association, IATA); a **High-Level Group (HLG)** of 17 governments represented by officers from capitals; and various other bodies including the Council itself – have been engaged in various parts of the MBM development.[13]

Please see the graphic below for a visual overview of the decision-making and analytical process surrounding the ICAO MBM.

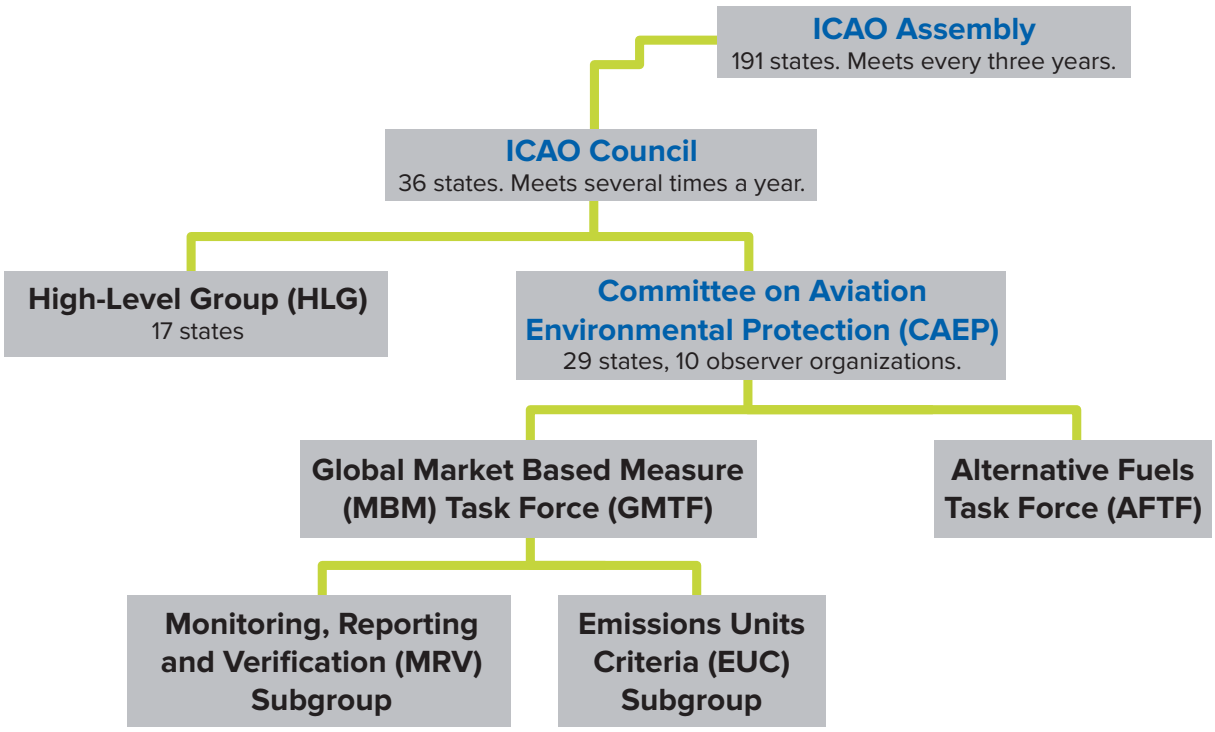


Figure 1: *The relevant bodies involved in structuring and approving the MBM.*

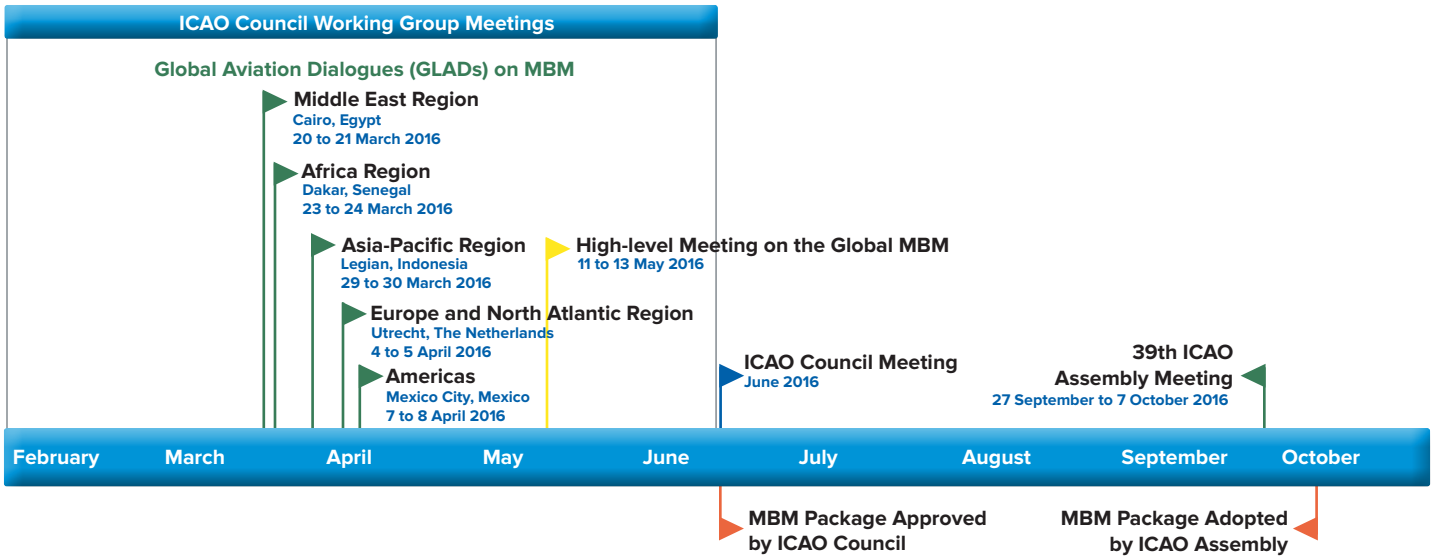
[11] For more information, see International Civil Aviation Organization. 2016. *Market-Based Measures*. http://www.icao.int/environmental-protection/Pages/market-based-measures.aspx and GreenAirOnline.com. 2014. *ICAO groups start work on developing a global market-based measure for international aviation emissions*. http://www.greenaironline.com/news.php?viewStory=1836.
[12] For more information, see International Civil Aviation Organization. n.d. *AFTF-large.png*. http://www.icao.int/environmental-protection/Documents/CAEP/Images/AFTF-Large.png.
[13] For more information, see International Civil Aviation Organization.2016. *Market-Based Measures*. http://www.icao.int/environmental-protection/Pages/market-based-measures.aspx and GreenAirOnline.com. 2014. *ICAO groups start work on developing a global market-based measure for international aviation emissions*. http://www.greenaironline.com/news.php?viewStory=1836.

TIMELINE

The ICAO Council, the primary decision-making body, and its working groups will meet between now and June to further develop the emission reductions package, including the market-based measure.

- **March-April**: Between 20 March and 8 April, the Council will host regional dialogues to inform and update negotiators on recent developments for creating and defining a global MBM scheme. Participation in these meetings will support negotiators in preparing for the High-level Meeting on a global MBM scheme (May), ICAO Council Meeting (June) and, subsequently, the 39th Session of the ICAO Assembly (September-October).[14]
- **May**: From 11-13 May 2016, ICAO will host a High-level Meeting on a Global Market-Based Measure (MBM) Scheme. At this meeting, countries will review and discussion the draft Assembly Resolution text on a global MBM scheme and make recommendations to the ICAO Council's June Session.[15]
- **June**: The ICAO Council will meet in June to discuss and approve the draft resolution on the MBM scheme to be sent to the 39th Session of the ICAO Assembly in September-October for consideration and adoption.
- **September-October**: The 39th Session of the ICAO Assembly will convene in Montreal, Canada from 27 September to 7 October to consider and adopt key resolutions on environmental actions, including, *inter alia*, the draft resolution on the MBM scheme.[16]

ICAO 2016 Key Meetings and Milestones



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[14] International Civil Aviation Organization. 2016. *Upcoming Meetings & Events*. http://www.icao.int/Meetings/Pages/Home.aspx?tab=upcoming. For more information on the GLADs, see *2016 Global Aviation Dialogues (GLADs)*. http://www.icao.int/Meetings/GLADs-2016/Pages/default.aspx.
[15] Ibid.
[16] For more information, see International Civil Aviation Organization. 2016. *Assembly — 39th Session.* http://www.icao.int/Meetings/a39/Pages/default.aspx.