

COMISSÃO LATINO-AMERICANA  
DE AVIAÇÃO CIVIL



LATIN AMERICAN CIVIL  
AVIATION COMMISSION

COMISIÓN LATINOAMERICANA DE AVIACIÓN CIVIL

SECRETARÍA  
APARTADO POSTAL 27032  
LIMA, PERÚ

CLAC/GEPEJTA/31-NI/02  
19/06/13

**TRIGÉSIMA PRIMERA REUNIÓN DEL GRUPO DE EXPERTOS EN ASUNTOS  
POLÍTICOS, ECONÓMICOS Y JURÍDICOS DEL TRANSPORTE AÉREO (GEPEJTA/31)**

(Santiago de Cali, Colombia, 26 al 28 de junio de 2013)

**Cuestión 4 del  
Orden del Día:**

**Medio Ambiente**

**Cuestión 4.1 del  
Orden del Día:**

**Actualización del programa de actividades de la Macrotarea Ambiental**

(Nota de estudio presentada por la Secretaría)

**Antecedentes**

1. Esta Secretaría recibió de la Unidad Administrativa Especial de Aeronáutica Civil de Colombia el Informe de la Tercera Reunión sobre Aviación Internacional y Cambio Climático (Montreal, Canadá, 25 al 27 de marzo de 2012), el mismo que se acompaña como **Adjunto 1** a la presente Nota informativa. En ese sentido, esta Secretaría ha creído conveniente presentar esta información, teniendo en cuenta el trabajo que debe desarrollar la CLAC en materia de Medio Ambiente.

**Medidas propuestas al Grupo de Expertos**

2. Se invita al GEPEJTA a tomar conocimiento de la información presentada.

## Tercera reunión sobre Aviación Internacional y Cambio Climático<sup>1</sup>

Montreal, 25 al 27 de Marzo del 2012

En la sede de la Organización de Aviación Civil Internacional (OACI), Montreal, Canadá, se dio cita la tercera reunión del Grupo de Alto nivel sobre Aviación Internacional y Cambio Climático entre el 25 y 27 de Marzo del 2013, con el objetivo de avanzar en los elementos sobre una política en materia de cambio climático para ser presentada por el Consejo en el 38°. Período de Sesiones de la Asamblea General.

El Presidente sometió a consideración del Grupo dos temas fundamentales: Asuntos de política relacionados con la canasta de medidas y apoyo a la implementación y Asuntos de política relacionados con las Medidas Basadas en criterios de Mercado (MBMs). Para el desarrollo de los temas propuestos, se presentaron cuatro notas de información, nueve notas de estudio y la perspectiva de la Industria sobre el Marco y la importancia de las MBMs.

La reunión comenzó con una serie de planteamientos sobre las distintas medidas propuestas para la reducción de emisiones. Un sector<sup>2</sup> de los participantes valoró el trabajo del CAEP, especialmente las nuevas normas sobre CO<sub>2</sub> para el Anexo 16, los beneficios de las medidas tecnológicas y operacionales, y sobre las cuales se planteó la cuestión si la reducción de emisiones se podría lograr a través de las medidas tecnológicas y operacionales. Mientras que por el contrario, otro sector<sup>3</sup>, apoyó las medidas tecnológicas y operacionales, sin embargo consideró que estas medidas no son suficientes, y se requiere de medidas complementarias.

Posteriormente, se hizo un análisis de una propuesta de nota de estudio<sup>4</sup> para ser presentada durante el 38°. Período de Sesiones

---

<sup>1</sup> Preparado por César A. Bejarano. Consultor para la Delegación de Colombia en Asuntos Jurídicos, Transporte Aéreo y Seguridad de la Aviación.

<sup>2</sup> Emiratos Árabes Unidos y Arabia Saudita

<sup>3</sup> Bélgica

<sup>4</sup> HGCC/3-WP/1. Agenda Item 2: Policy issues related to the basket of measures and implementation support. **DRAFT 38<sup>TH</sup> ASSEMBLY RESOLUTION EXCEPT FOR THE PROVISIONS ON MBMs.**

de la Asamblea General de la OACI, sobre asuntos de política relacionadas con la canasta de medidas para la protección del medio ambiente, excepto las provisiones sobre las MBMs.

Se planteó en la reunión que la eficiencia en el uso del combustible ha contribuido mucho y se debe dar prioridad a las medidas tecnológicas y operacionales<sup>5</sup>, y debería haber un reconocimiento a aquel sector de la industria que ha podido contribuir con la reducción de emisiones<sup>6</sup>. También se planteó consideraciones sobre la política de la OACI en relación con los combustibles alternativos y cómo esta política podría fortalecer la industria y afectar a países en vías de desarrollo productores de petróleo<sup>7</sup>. Otro participante<sup>8</sup>, consideró que debería tenerse en cuenta las medidas de gestión del tráfico aéreo.

Sobre el párrafo 6 de la precitada nota de estudio, hubo un debate amplio; por ejemplo, Arabia Saudita planteó reservas en cuanto a las metas aspiracionales mundiales a mediano plazo, y planteó que para lograr un crecimiento neutro de carbono, se debe tener en cuenta el desarrollo sostenible de la aviación civil internacional. India por su parte consideró importante que se respeten las reservas que los Estados han hecho. A su turno, Brasil apoyó a Arabia Saudita, India, China. Bélgica expresó reservas al apartado c del párrafo en comentario<sup>9</sup>, especialmente a la segunda parte de la oración. Otros Estados<sup>10</sup> apoyaron el párrafo 6.

Sobre el párrafo 9, USA sugirió utilizar un lenguaje en la resolución, en el sentido que se espera que los Estados presenten sus planes de acción, mientras que Arabia Saudita, consideró mantener el lenguaje de alentar o seguir alentando a los Estados en la presentación de los planes nacionales; no es necesario utilizar un lenguaje fuerte. India por su parte enfatizó que la presentación de los planes de acción es voluntaria.

Japón estuvo de acuerdo en que se debe alentar a los Estados a que presenten sus planes de acción y que la OACI

---

<sup>5</sup> Intervención de China.

<sup>6</sup> Arabia Saudita.

<sup>7</sup> Intervención de Arabia Saudita.

<sup>8</sup> Singapur

<sup>9</sup> “that some States may take ambitious actions prior to 2020, **which may offset an increase in emissions from the growth of air transport in developing States**”.

<sup>10</sup> Nigeria, y USA sugirió un Nuevo párrafo entre el 6 y 7.

desempeñe una labor de liderazgo en la asistencia a los Estados. En relación con el párrafo 9, sugirió que el enunciado fuera alentador fuertemente a los Estados en la presentación de los planes de acción y estuvo de acuerdo en añadir la palabra voluntaria en los párrafos 10 y 11.

Otros de los aspectos relacionados con la presentación de los planes de acción fue el asunto de la transparencia, propuesta apoyada por Bélgica, USA, Reino Unido y Canadá. USA apoyó el principio de la publicidad de los planes de acción.

El segundo gran tema abordado durante la reunión, fue el de analizar los elementos constitutivos para un Marco de las MBMs. En consecuencia, se presentaron notas de estudio para el análisis de los participantes, y sobre las cuales se pueden señalar los elementos centrales de la discusión:

En el WP/2, (Japón) El Comité y el Consejo deben dar respuesta a la cláusula No. 13 de la Res. A37-19, en la que se pidió “al Consejo que, con el apoyo de los Estados miembros, emprenda la labor de determinar un marco para las medidas basadas en criterios de mercado (MBM) para la aviación internacional, incluida una explicación más a fondo de los principios rectores que se enumeran en el Anexo, para someterlo a consideración del 38º. Período de Sesiones de la Asamblea de la OACI”. El trabajo de este grupo debería cumplir con el mandato de la Asamblea. No se debería centrar el debate entre un Marco para las MBMs con otras disposiciones. Se han identificado así mismo cuatro ejes centrales para abordar el asunto del Marco: Propósito, Enfoque, Alcance Geográfico y Participantes.

En la WP/3, (Singapur) presentó un proyecto de Marco sobre las MBMs, y se tomó como referencia de análisis en el Comité. Según esta nota de estudio, el marco debería definirse cuidadosamente para evitar distorsiones en el mercado. Es necesario que se indique claramente el propósito de un Marco para las MBMs. Además de los principios rectores, se incluyen elementos claves como el alcance geográfico, necesidad de acuerdo mutuo, diferencias y capacidades respectivas.

En la WP/4, (Emiratos Árabes Unidos), se planteó que un Marco debe ser un instrumento que permita la aplicación de las MBMs locales o regionales. Sobre el alcance geográfico están

abiertos a que se siga analizando. Los Emiratos sugieren que las MBMs deberían incorporar los Minimis para la exclusión de pequeñas aeronaves que no producen emisiones.

En la WP/5, India le da preeminencia a la canasta de medidas (tecnológicas, operacionales, planes de acción de los Estados y combustibles alternativos) y no a las MBMs. Estas medidas tienen un impacto muy importante en la reducción de emisiones. Los Estados deben aceptar voluntariamente los MBMs.

En la WP/6 se planteó a corto plazo, un marco para los Estados que decidan las MBMs, a largo plazo un sistema mundial que reemplazaría el Marco y simplificaría el sistema. Sobre el sistema mundial, las consideraciones son de distinta índole: ¿cómo podría funcionar un sistema de esta naturaleza? Privilegiar el sistema de compensaciones que es el más simple. Es importante que este sistema respete el principio de las respectivas capacidades; exonerar a los Estados en función del grado de desarrollo; habría que resolver otros asuntos como los calendarios, entrada gradual de ciertos países, cuál sería la base de referencia, etc.

En la WP/7 los análisis han demostrado que las MBMs son una parte esencial de la canasta de medidas necesarias para alcanzar las metas de estabilizar y reducir las emisiones de aviación internacional. En ausencia de una MBM global, o en espera de su implementación, el enfoque de la cobertura geográfica que involucra una pequeña porción de las emisiones de aviación internacional siendo cubiertas por las MBMs generaría ciertas dudas de cómo las metas globales pueden ser alcanzadas.

En la WP/9 (Federación Rusa) Presenta varias propuestas sobre el establecimiento de un Marco sobre MBMs. La Federación Rusa ha trabajado en la reducción de emisiones. Un Marco para las MBMs debería ser lo más simple y transparente. Las propuestas son:

1) Un Marco MBMs que incluya los vuelos de entrada y salida dentro de las fronteras nacionales.

2) Las MBMs deberían implementarse dentro de las fronteras nacionales y aplicarlos a los transportistas nacionales. Los Estados

dentro de sus territorios tienen derecho a establecer sus propias políticas.

En relación con el Marco para las MBMS, los diferentes participantes expusieron sus puntos de vista:

Francia subrayó la importancia de la OACI como el foro para lograr un acuerdo sobre el Marco en lugar de acuerdos entre los Estados miembros de la Organización de manera bilateral. Adicionalmente, apoyó la nota presentada por Singapur al considerarla coherente; el Reino Unido se sumó al apoyo de Francia a la nota de Singapur proponiéndola para el debate en el seno del Comité.

Australia consideró mayor concentración en el Marco el cual debe ser muy claro, y si una medida cumple o no con el Marco. Australia apoya la opción de los vuelos de salida dentro del alcance geográfico, como la mejor manera de proceder.

Para Arabia Saudita, el problema esencial tiene que ver con el Marco general de las MBMS, ya que si estas deben complementar otras medidas, deben aplicarse voluntariamente, sobre la base de acuerdos bilaterales.

Estados Unidos apoyó el Documento de Singapur como base para trabajar. No se ha estudiado la cuestión de los sobrevuelos, no apoya los vuelos de salida, enfatiza en el requisito del consentimiento mutuo y una nota sobre MBMS a escala mundial. Por su parte México apoyó la nota de estudio presentada por Singapur.

La China por su parte, apoyó la función de liderazgo de la OACI. El Marco debe procurar incentivos para una reducción real de las emisiones. El Marco debe asegurar una participación justa. Debe darse la oportunidad para que los países en vías de desarrollo logren un crecimiento. No se debería tener en cuenta la base de referencia y se debe aplicar el principio de las responsabilidades comunes pero diferenciadas.

La Federación Rusa no apoyó la nota presentada por Singapur y propuso que la Secretaría tomara las diferentes notas de estudio y las incluyera en los cuatro tópicos para presentar un proyecto de resolución del Consejo a la Asamblea General de la OACI.

India no aceptó la nota presentada por Singapur y consideró que se deje la opción para aquellos Estados que quieran participar voluntariamente, reiteró la importancia del consentimiento mutuo y la aplicabilidad para los Estados.

La Industria por su parte, planteó las siguientes consideraciones: Las MBMs<sup>11</sup>, son parte de un paquete total de medidas para reducir las emisiones de CO<sub>2</sub>; deben ser entendidas como medidas complementarias a las medidas tecnológicas, operacionales y de infraestructura; no deben ser consideradas como un objetivo en sí mismas o diseñadas para retrasar el crecimiento de la aviación; deben ser vistas como medidas transitorias y temporales hasta que las otras medidas contribuyan en la reducción de emisiones de tal forma que se alcancen los objetivos a mediano y largo plazo; la OACI necesita jugar un papel importante en regular las MBMs para la aviación.

Los elementos claves para la Industria sobre las MBMS, consisten en asegurar la integridad medio ambiental, minimizar la complejidad administrativa, minimizar la distorsión en la competencia, y deben ser aplicadas estrictamente con un criterio complementario para llenar el vacío de las otras medidas.

La industria cree que un mecanismo único mundial es la única forma de satisfacer todos los criterios y que el esquema basado en la compensación obligatoria puede representar el camino más simple, fácil y rápido a seguir. En general hay un consenso en la comunidad aeronáutica mundial sobre esta primera opción, y se han ido descartando poco a poco las dos opciones restantes (compensación obligatoria con generación de ingresos, y un esquema mundial de comercio de emisiones).

Sobre el Marco, la Industria considera que en ausencia de un mecanismo global único, un Marco necesita ser definido cuidadosamente para asegurar la integridad medio ambiental, evitar distorsiones en el mercado y la competencia y evitar la complejidad administrativa y los altos costos que puede generar. Adicionalmente, un Marco débil, promoverá la proliferación de costosos y múltiples MBMs; una vez las medidas estén definidas, sería muy difícil removerlas o reemplazarlas y un Marco por lo tanto debe ser claramente definido y como un mecanismo transitorio a un esquema global de MBM para la aviación.

---

<sup>11</sup> Cfr. "Emissions Reduction Roadmap". Cuadro explicativo desde la perspectiva de la Industria sobre el rol de las MBMS.

La Industria plantea los siguientes aspectos para consideración del 38°. Período de Sesiones de la Asamblea General: reafirma las metas a mediano y largo plazo (Crecimiento neutral de carbono desde el 2020 y una meta al 2050 del 50% de reducciones comparada con los niveles del 2005), reconoce las MBMs como un “gap-filler” de las otras medidas, está de acuerdo en que se desarrolle un mecanismo único y escalable para el 39°. Período de Sesiones de la Asamblea, se debe asegurar consistencia de las MBMs con el Marco, está de acuerdo con formas aceptables de créditos de carbono bajo un esquema de compensación, también con el ámbito de aplicación geográfico, y con un informe único estatal para los operadores; solicita al Consejo que desarrolle una norma de la OACI sobre (Monitoreo, Reporte y Verificación –MRV-) para el 39°. Período de Sesiones de la Asamblea General.

Adicionalmente, reafirma los principios contenidos en la A37-19 sobre MBMs, incluyendo: evitar duplicación de contabilidad para las mismas emisiones, minimizar la fuga de carbono, minimizar las distorsiones del mercado (igual tratamiento para todos los operadores sobre las mismas rutas), asegurar la simplicidad administrativa (incluyendo escalas para los pequeños operadores).

Finalmente la industria, continúa trabajando en una serie de áreas: puesta en marcha de medidas sobre eficiencia (renovación de flotas, nuevos diseños de motores, promueve mejoras y actualización en los sistemas ATM, técnicas de operaciones de vuelo, impulsando la comercialización de los combustibles alternativos para la aviación), evaluar opciones en relación con el crecimiento neutral de carbono al 2020 (líneas bases colectivas e individuales, principios para el monitoreo e informes, reconocimiento de los más emprendedores, acomodar los nuevos participantes, dar respuesta a quienes crecen rápido; y evaluar opciones para responder al principio de la circunstancias especiales y las respectivas capacidades.

Se adjunta al presente informe las Notas de Estudio No. 1 presentada por la Secretaría del Grupo de Alto Nivel sobre Aviación Internacional y Cambio Climático, la No.3 presentada por Singapur para facilitar las discusiones sobre un Marco para las MBMs, los proyectos de resolución y unas figuras sobre la carta de ruta para la reducción de emisiones.

**APPENDIX A (As of 27 March 2013 at the end of HGCC/3)****Draft 38th Assembly Resolution on International Aviation and Climate Change  
without the provisions on Market-based Measures (MBMs)****Resolution ~~A38-xx~~A37-19: Consolidated statement of continuing ICAO policies and practices  
related to environmental protection – Climate change**

*Whereas* ICAO and its member States recognize the critical importance of providing continuous leadership to international civil aviation in limiting or reducing its emissions that contribute to global climate change;

*Reemphasizing* the vital role which international aviation plays in global economic and social development and the need to ensure that international aviation continues to develop in a sustainable manner;

*Whereas* the ultimate objective of the United Nations Framework Convention on Climate Change (UNFCCC) is to achieve stabilization of greenhouse gas (GHG) concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system;

*Whereas* the Kyoto Protocol, which was adopted by the Conference of the Parties to the UNFCCC in December 1997 and entered into force on 16 February 2005, calls for developed countries (Annex I Parties) to pursue limitation or reduction of greenhouse gases from “aviation bunker fuels” (international aviation) working through ICAO (Article 2.2);

*Acknowledging* that international aviation emissions, currently accounting for less than 2 per cent of total global CO<sub>2</sub> emissions, are projected to grow as a result of the continued development of the sector;

*Whereas* a comprehensive assessment of aviation’s impact on the atmosphere is contained in the special report on *Aviation and the Global Atmosphere*, published in 1999, which was prepared at ICAO’s request by the Intergovernmental Panel on Climate Change (IPCC) in collaboration with the Scientific Assessment Panel to the Montreal Protocol on Substances that Deplete the Ozone Layer;

*Whereas* the IPCC special report recognized that the effects of some types of aircraft emissions are well understood, it revealed that the effects of others are not, and identified a number of key areas of scientific uncertainty that limit the ability to project aviation’s full impacts on climate and ozone;

*Whereas* ICAO requested that the IPCC include an update of the main findings of the special report in its Fourth Assessment Report, published in 2007 and its Fifth Assessment Report to be published in 2014;

*Noting* the scientific view that the increase in global average temperature above pre-industrial levels ought not to exceed 2°C;

*Acknowledging* the principles and provisions on common but differentiated responsibilities and respective capabilities, and with developed countries taking the lead under the UNFCCC and the Kyoto Protocol;

*Also acknowledging* the principles of non-discrimination and equal and fair opportunities to develop international aviation set forth in the Chicago Convention;

*Recognizing* that this Resolution does not set a precedent for or prejudice the outcome of negotiations under the UNFCCC and its Kyoto Protocol nor represent the position of the Parties to the UNFCCC and its Kyoto Protocol;

~~*Noting* that, consistent with Assembly Resolution A36-22, the High level Meeting on International Aviation and Climate Change in October 2009 (HLM ENV/09) endorsed the Programme of Action on International Aviation and Climate Change which included global aspirational goals in the form of fuel efficiency, a basket of measures and the means to measure progress;~~

*Recognizing* that the aspirational goal of 2 per cent annual fuel efficiency improvement is unlikely to deliver the level of reduction necessary to stabilize and then reduce aviation's absolute emissions contribution to climate change, and that goals of more ambition will need to be considered to deliver a sustainable path for aviation;

*Noting* that, to promote sustainable growth of aviation, a comprehensive approach, consisting of work on technology and standards, and on operational and market-based measures to reduce emissions is necessary;

*Acknowledging* the significant technological progress made in the aviation sector, with aircraft produced today being about 80 per cent more fuel efficient per passenger kilometre than in the 1960's;

*Welcoming* the agreement by the Committee on Aviation Environmental Protection (CAEP) of certification requirements for a global CO<sub>2</sub> Standard for aircraft;

*Recognizing* that air traffic management (ATM) measures under the ICAO's Global Air Navigation Plan contribute to enhanced operational efficiency and the reduction of aircraft CO<sub>2</sub> emissions;

*Welcoming* the adoption of the Aviation System Block Upgrades (ASBUs) strategy at the ICAO Twelfth Air Navigation Conference in November 2012;

***{ Preamble Paragraph(s) for MBMs – to be developed }***

~~*Noting* that the Conference on Aviation and Alternative Fuels in November 2009 (CAAF/09) endorsed the use of sustainable alternative fuels for aviation, particularly the use of drop-in fuels in the short to mid term, as an important means of reducing aviation emissions; Also noting that the CAAF/09 and established an ICAO Global Framework for Aviation Alternative Fuels (GFAAF);~~

*Acknowledging* that, to initiate viable commercial production of sustainable alternative fuels for aviation, the main goal will be to create a long-term market perspective and address the initial price gap with conventional jet fuel, which requires national renewable energy and/or biofuels policies to consider the use of such fuels in aviation;

*Acknowledging* the major importance of a sustainable production that should ensure a long term continued production capacity of the natural resources, in an economically feasible, socially and environmentally acceptable way;

*Noting* the challenges associated with the emergence of disparate policies and procedures for alternative fuels for aviation, in particular in the approaches to sustainability, and recognizing the need for increased harmonization of the approaches;

Noting that, consistent with Assembly Resolution A37-19, the Council provided guidance and other technical assistance for the preparation and submission of States' action plans, including the holding of hands-on training workshops and the development of guidance material, an interactive web-interface and the ICAO Fuel Savings Estimation Tool (IFSET);

Welcoming that, as of 30 June 2013, XX member States that represent more than XX per cent of global international air traffic voluntarily prepared and submitted their action plans to ICAO;

Noting that the ICAO "Assistance for Action – Aviation and Climate Change" Seminar in October 2012 highlighted the active involvement of member States and international organizations in the activities related to States' action plans, and provided an opportunity to share information and build partnerships in order to facilitate assistance identified by States for the preparation and implementation of their action plans;

*Recognizing* the different circumstances among States in their capacity to respond to the challenges associated with climate change and the need to provide necessary support, in particular to developing countries and States having particular needs;

*Affirming* that specific measures to assist developing States as well as to facilitate access to financial support, technology transfer and capacity building should be initiated;

***{ Preamble Paragraph(s) for MBMs/CDM – to be developed }***

*Affirming* that addressing GHG emissions from international aviation requires the active engagement and cooperation of States and the industry, and *noting* the collective commitments announced by Airports Council International (ACI), Civil Air Navigation Services Organisation (CANSO), International Air Transport Association (IATA), and International Coordinating Council of Aerospace Industries Associations (ICCAIA) on behalf of the international air transport industry to continuously improve CO<sub>2</sub> efficiency by an average of 1.5 per cent per annum from 2009 until 2020, to achieve carbon neutral growth from 2020 and reducing its carbon emissions by 50 per cent by 2050 compared to 2005 levels;

*Recognizing* the need to monitor and report the potential impacts of climate change on international aviation operations and related infrastructure;

*Recognizing* the progress made by ICAO in its implementation of the Climate Neutral UN initiative and the significant support provided by ICAO to the initiative, in particular through the development of a common methodology for calculating GHG emissions from air travel;

*The Assembly:*

1. *Resolves* that this Resolution, together with Resolution ~~A38-yy~~A37-18: Consolidated statement of continuing ICAO policies and practices related to environmental protection - General provisions, noise and local air quality, supersede Resolutions A37-18 and ~~A37-19~~A36-22 and constitute the consolidated statement of continuing ICAO policies and practices related to environmental protection;

2. *Requests* the Council to:

- a) ensure that ICAO exercise continuous leadership on environmental issues relating to international civil aviation, including GHG emissions;
- b) continue to study policy options to limit or reduce the environmental impact of aircraft engine emissions and to develop concrete proposals and provide advice as soon as possible to the Conference of the Parties of the UNFCCC,

encompassing technical solutions and market-based measures, and taking into account potential implications of such measures for developing as well as developed countries; and

- c) continue to cooperate with organizations involved in policy-making in this field, notably with the Conference of the Parties to the UNFCCC;

3. *Reiterates* that:

- a) ICAO should continue to take initiatives to promote information on scientific understanding of aviation's impact and action undertaken to address aviation emissions and continue to provide the forum to facilitate discussions on solutions to address aviation emissions; and
- b) emphasis should be on those policy options that will reduce aircraft engine emissions without negatively impacting the growth of air transport especially in developing economies;

***Global Aspirational Goals – paragraphs 4 to 8***

4. *Resolves* that States and relevant organizations will work through ICAO to achieve a global annual average fuel efficiency improvement of 2 per cent until 2020 and an aspirational global fuel efficiency improvement rate of 2 per cent per annum from 2021 to 2050, calculated on the basis of volume of fuel used per revenue tonne kilometre performed;

5. *Agrees* that the goals mentioned in paragraph 4 above would not attribute specific obligations to individual States, and the different circumstances, respective capabilities and contribution of developing and developed States to the concentration of aviation GHG emissions in the atmosphere will determine how each State may voluntarily contribute to achieving the global aspirational goals;

6. *Also resolves* that, without any attribution of specific obligations to individual States, ICAO and its member States with relevant organizations will work together to strive to achieve a collective medium term global aspirational goal of keeping the global net carbon emissions from international aviation from 2020 at the same level, taking into account:

- a) the special circumstances and respective capabilities of developing countries;
- b) 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;
- c) 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;
- d) the maturity of aviation markets;
- e) the sustainable growth of the international aviation industry; and
- f) 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;

6 bis. Recognizes the many actions that ICAO member States have taken and intend to take in support of the achievement of the collective aspirational goals, including air traffic management modernization, acceleration of the use of fuel-efficient aircraft technologies, and the development and deployment of sustainable alternative fuels, and encourages further such efforts;

7. *Agrees* to review, at its ~~39th~~<sup>38th</sup> Session, the goal mentioned in paragraph 6 above in light of progress towards the goal, new studies regarding the feasibility of achieving the goal, and relevant information from States;

8. *Requests* the Council to continue to explore the feasibility of a long term global aspirational goal for international aviation, through conducting detailed studies assessing the attainability and impacts of any goals proposed, including the impact on growth as well as costs in all countries, especially developing countries, for the progress of the work to be presented to the ~~39th~~<sup>38th</sup> Session of the ICAO Assembly. Assessment of long term goals should include information from member States on their experiences working towards the medium term goal.

**States' Action Plans / Assistance to States – paragraphs 9 to 12**

9. *Further encourages* States to submit their action plans outlining their respective policies and actions, and annual reporting on international aviation CO<sub>2</sub> emissions to ICAO;

10. *Invites* those States that choose to prepare or update their action plans to submit them to ICAO as soon as possible preferably by the end of June ~~2015~~<sup>2012</sup> and once every three years thereafter, in order that ICAO can continue to compile the information in relation to achieving the global aspirational goals, and the action plans should include information on the basket of measures considered by States, reflecting their respective national capacities and circumstances, information on the expected environmental benefits from the implementation of the measures chosen from the basket, and information on any specific assistance needs;

10 bis. Encourage States that already submitted their action plans to share information contained in their action plans and build partnerships with other member States in order to support those States that have not prepared their action plans;

10 ter. Encourage States to make their action plans available to the public, taking into account the commercial sensitivity of information contained in States' action plans;

11. *Requests* the Council to facilitate the dissemination of economic and technical studies and best practices related to aspirational goals and to continue to provide guidance and other technical assistance for the preparation and update of States' action plans prior to the end of June ~~2015~~<sup>2012</sup>, in order for States to conduct their necessary studies and to voluntarily submit their action plans to ICAO;

11 bis. Also requests the Council, as part of the provision of technical assistance above, to hold workshops and to update the *Guidance Material for the Development of States' Action Plans*, interactive web-interface and relevant tools, particularly in order to assist States to include information on the expected environmental benefits from the implementation of the measures chosen for their action plans, consistent with the guidance;

~~12. Resolves that a *de minimis* threshold of international aviation activity of 1 per cent of total revenue ton kilometres should apply to the submission of States' action plans as follows:~~

- ~~g) States below the threshold are not expected to submit action plans towards achieving the global goals; and~~

- h) ~~States below the threshold but that otherwise have agreed to voluntarily contribute to achieving the global goals are expected to submit action plans;~~

*{ Operative Paragraph(s) for MBMs – to be developed }*

21. *Requests* the Council to regularly report CO<sub>2</sub> emissions from international aviation to the UNFCCC, as part of its contribution to assessing progress made in the implementation actions in the sector based on information approved by its member States;

**Assistance to States – paragraph 22**

22. *Requests* the Council to:

- a) continue to play a pivotal role in providing assistance to its member States through the dissemination of the latest information on best practices and the provision of guidance and other technical assistance to enhance capacity building and technology transfer, including through the ICAO Technical Cooperation Programme;
- b) consolidate and build on the partnership with other international organizations to meet the assistance needs of ICAO's member States, including through their action plans, which will bring about reductions in international aviation emissions;
- a) c) continue to study, identify and develop processes and mechanisms to facilitate the provision of technical and financial assistance, as well as facilitate access to existing and new financial resources, technology transfer and capacity building, to developing countries and report on its progress, including processes and mechanisms developed, results achieved as well as further recommendations, preliminarily by the end of ~~2015~~2012 and at the ~~39th~~38th Session of the Assembly; and
- b) d) continue to initiate specific measures to assist developing States as well as to facilitate access to financial resources, technology transfer and capacity building;

23. *Requests* States to:

- a) promote scientific research aimed at continuing to address the uncertainties identified in the IPCC special report on Aviation and the Global Atmosphere and in the Fourth Assessment report;
- b) ensure that future international assessments of climate change undertaken by IPCC and other relevant United Nations bodies include updated information, if any, on aircraft-induced effects on the atmosphere;

**Technological and Operational Measures – paragraphs 23. b)-2 to f)**

- b)-2 consider policies to encourage the introduction of more fuel efficient aircraft in the market;
- c) accelerate investments on research and development to bring to market even more efficient technology by 2020;
- d) accelerate the development and implementation of fuel efficient routings and procedures to reduce aviation emissions;

- e) accelerate efforts to achieve environmental benefits through the application of ~~satellite-based~~ technologies that improve the efficiency of air navigation and work with ICAO to bring these benefits to all regions and States, taking into account the Aviation System Block Upgrades (ASBUs) strategy;
- f) reduce legal, security, economic and other institutional barriers to enable implementation of the new ATM operating concepts for the environmentally efficient use of airspace;

**Sustainable Alternative Fuels – new paragraphs 23 bis. and 23 ter. that replace 23. g) h) i)**

- ~~g) develop policy actions to accelerate the appropriate development, deployment and use of sustainable alternative fuels for aviation;~~
- ~~h) work together through ICAO and other relevant international bodies, to exchange information and best practices; and~~
- ~~i) consider measures to support sustainable aviation alternative fuels research and development, investments in new feedstock cultivations and production facilities, as well as incentives to stimulate commercialisation and use of sustainable alternative fuels for aviation to accelerate the reduction of aviation CO<sub>2</sub> emissions;~~

23 bis. Encourages States to:

- a) set coordinated approach in their national administrations in order to develop policy actions to accelerate the appropriate development, deployment and use of sustainable alternative fuels for aviation;
- b) consider measures to support research and development as well as demonstration steps in processing technology and feedstock production in order to decrease costs and support scale-up of sustainable production pathways up to commercial scale;

23 ter. Urges States to:

- a) develop alternative fuels for aviation in accordance with their national circumstances;
- b) recognize existing approaches to assess the sustainability of all alternative fuels in general, including those for use in aviation, which should:
  - 1) achieve net GHG emissions reduction on a life cycle basis, compared to conventional jet fuel;
  - 2) respect the areas of high importance for biodiversity, conservation and benefits for people from ecosystems;
  - 3) contribute to local social and economic development, and competition with food and water should be minimized;
- c) adopt measures to ensure the sustainability of alternative fuels for aviation, building on existing approaches or combination of approaches, and monitor, at a national level, the sustainability of the production of alternative fuels for aviation;

- d) work together through ICAO and other relevant international bodies, to exchange information and best practices, including on the sustainability of alternative fuels for aviation;
- e) [ assess all the impacts of the deployment of alternative fuels in aviation and on the social and economic consequences on the industries producing conventional fuels as well as on the consequences of the countries deploying them, especially developing countries; ]

24. *Requests* the Council to:

- a) continue to develop and keep up-to-date the guidance for member States on the application of policies and measures aimed at reducing or limiting the environmental impact of emissions from aviation, and conduct further studies with respect to mitigating the impact of aviation on climate change;
- b) encourage States to cooperate in the development of predictive analytical models for the assessment of aviation impacts;
- c) continue evaluating the costs and benefits of the various measures, including existing measures, with the goal of addressing aircraft engine emissions in the most cost-effective manner, taking into account the interests of all parties concerned, including potential impacts on developing world;
- d) provide the necessary guidance and direction to ICAO's Regional Offices to assist member States with studies, evaluations and development of procedures, in collaboration with other States in the region, to limit or reduce GHG emissions on a global basis and work together collaboratively to optimize the environmental benefits that can be achieved through their various programmes;

**Technological and Operational Measures – paragraphs 24. e) f) i) j) and j)-2**

- e) develop a global CO<sub>2</sub> Standard for aircraft aiming to finalize analyses by late 2015 and adoption by the Council in 2016 ~~aiming for 2013;~~
- f) further elaborate on relevant fuel efficiency metrics, including for international business aviation, and develop and update medium and long term technological and operational goals for aircraft fuel burn;
- ~~g) encourage member States and invite industry to actively participate in further work on sustainable alternative fuels for aviation;~~
- ~~h) work with financial institutions to facilitate access to financing infrastructure development projects dedicated to sustainable aviation alternative fuels and incentives to overcome initial market hurdles;~~
- ~~i) continue to develop the necessary tools to assess the benefits associated with ATM improvements, and maintain and update intensify its efforts on the development of new guidance on ATM improvements and other operational measures to reduce international aviation emissions;~~
- j) implement an emphasis on increasing fuel efficiency in all aspects of the ICAO's Global Air Navigation Plan, and encourage States and stakeholders to develop air traffic management that optimize environmental benefits and to promote and

share best practices applied at airports in reducing the adverse effects of GHG emissions of civil aviation;

- j)-2 continue to develop and update the necessary tools and guidance to assess the benefits associated with ATM improvements, and assess the environmental benefits associated with the implementation of the Aviation System Block Upgrades (ASBUs) strategy;

**Sustainable Alternative Fuels – new paragraphs 24. j)-3 to j)-5 that replace 24. g) and h)**

- j)-3 encourage member States and invite industry, financial institutions and other international organizations to actively participate in exchange of information and best practices and in further work under ICAO on sustainable alternative fuels for aviation;
- j)-4) continue to maintain the Global Framework for Aviation Alternative Fuels (GFAAF) and to explore the development of guidance material to support States and facilitate the development and deployment of sustainable alternative fuels in aviation;
- j)-5) collect information on progress of alternative fuels in aviation, including through States' action plans, to give a global view of the future use of alternative jet fuels and to account for changes in life cycle GHG emissions in order to assess progress toward achieving global aspirational goals;
- k) maintain and enhance ~~identify~~ appropriate standard methodologies and a mechanism to measure/estimate, monitor and verify global GHG emissions from international aviation, and States support the work of ICAO on measuring progress through the reporting of annual data on traffic and fuel consumption;
- l) request States to continue to support the efforts of ICAO on enhancing the reliability of measuring/estimating global GHG emissions from international aviation;
- m) *{ Operative Paragraph(s) for MBMs/CDM – to be developed }*
- n) monitor and disseminate relevant information on the potential impacts of climate change on international aviation operations and related infrastructure, in cooperation with other relevant international organizations and the industry; and
- o) continue to cooperate with the Climate Neutral UN initiative, remain at the forefront of developing methods and tools for quantifying aviation's GHG emissions with respect to the initiative, and further develop and implement the strategy for reducing GHG emissions and enhancing in-house sustainability management practices of the Organization.

— END —

**Draft 38th Assembly Resolution Text on Market-based Measures (MBMs)**

**(As of 27 March 2013 at the end of HGCC/3)**

**1. Framework for MBMs**

**(Amendments to Appendix of HGCC/3-WP/3 to reflect views expressed at the HGCC/3 meeting)**

**A. Preamble**

A1 *Recalling* Assembly Resolution A37-19 requesting the Council, with the support of member States, to undertake work to develop a Framework for Market-Based Measures (MBMs) in international aviation, including further elaboration of the guiding principles listed in the Annex, for consideration by the 38th Session of the ICAO Assembly;

A2 *Emphasizing* the vital role which international aviation plays in global economic and social development and the need to ensure that international aviation continues to develop in a sustainable manner; *{ from A37-19 }*

A3 *Also recognizing* the critical importance of ICAO providing leadership to the contribution of international aviation to address CO<sub>2</sub> emissions that contribute to global climate change; *{ from A37-19 }*

A4 *Aware* that a variety of measures have been, and will be, put in place by ICAO member States to contribute to the realization of the aspirational global goal, and recognizing that MBMs to address CO<sub>2</sub> emissions from international aviation [ are among these measures ] [ are possible options to achieve that goal ] [ can be used to complement these measures ];

A5 *Acknowledging* the principles and provisions on common but differentiated responsibilities and respective capabilities, and with developed countries taking the lead under the UNFCCC and the Kyoto Protocol; *{ from A37-19 }*

A6 *Also acknowledging* the principles of non-discrimination and equal and fair opportunities to develop international aviation set forth in the Chicago Convention; *{ from A37-19 }*

A7 [ Recognising that emissions from international aviation only represent 2% of total emissions of the world; ] { covered in A37-19 }

A8 [ Acknowledging, at the same time, that in all scenarios modeled for carbon neutral growth to be achieved after 2020, approximately 95% of the emission reduction are accomplished by the international civil aviation sector purchasing emission units from outside the sector; ]

A9 [ Recognising that MBMs should promote actions with the international aviation sector, not just to buy credits from international carbon market; ]

A10 [ Recognizing the need to ensure compatibility and coherence of framework for MBMs and MBMs with mutually agreed instruments being adopted under the UNFCCC and the Kyoto Protocol; ]

A11 [ Also recognizing the need to avoid multiplicity of approaches for the design and implementation of MBM framework and MBM schemes; ]

A12 [ Noting that the UNFCCC is in the process of discussing a new market-based mechanism taking into account, inter alia, ensuring voluntary participation of Parties and safeguarding environmental integrity; ]

A13 [ Recognizing that the feasibility of MBMs has not been established in the various studies made in this context; ]

## **B. Purpose of a Framework for MBMs**

B1 The Framework for MBMs outlines the guiding principles and key elements for States to [ abide by ] [ conform to ] should a State [ or region ] [ group of States ] voluntarily choose to implement [ and a State voluntarily chooses to agree to participate in ] an MBM applicable to CO<sub>2</sub> emissions from international aviation on aircraft registered in other States.

B2 [ States designing or implementing an MBM applicable to international aviation CO<sub>2</sub> emissions should seek to demonstrate that the MBM is compatible with the Framework. ]

B3-1 [ An MBM that is implemented consistent with the Framework does not require the mutual consent of States. However, as the Framework provides generic guidance for the implementation of MBMs on air operators, and may not comprehensively cover all elements, air operators that may be unfairly affected by the implementation of an MBM could take its case to the State [ or region ] implementing the MBM and the State [ or region ] should address the issue immediately. [ If no agreement can be reached, the issue should be raised to and addressed by the ICAO Council. ] ]

OR

B3-2 [ Mutual consent is still required for any State or regional MBM to be applied to any aircraft registered in a foreign State, but such consent shall not be [ unreasonably withheld if the MBM is compatible with the Framework ] [ necessary if the foreign States has implemented or is to implement an MBM which is compatible with the Framework, or does not object to such application ] ].

OR

B3-3 [ Mutual consent of both adopting and participating States is necessary for any framework for MBMs ].

B4 The Framework does not prejudice or set the precedence for negotiations under the United Nations (UN) Framework Convention on Climate Change or other UN bodies. *{ covered in A37-19 }*

B5 The Framework is mutually agreed among States but does not prejudice any State of its legal rights under international laws, including but not limited to the Chicago Convention.

B6 This Framework is not intended to prejudice the implementation of a global MBM scheme for CO<sub>2</sub> emissions from international aviation and its design, although it could serve as a guide for its development; should a global MBM scheme be put in place, this Framework will cease to apply.

B7 [ The Framework should be compatible and coherent with mutually agreed instruments being adopted under the UNFCCC and the Kyoto Protocol. ]

B8 [ The Framework should avoid multiplicity of approaches for the design and implementation of MBM schemes. ]

### C. Guiding Principles

The guiding principles for the design and implementation of MBMs are:

[ Maintain the 15 guiding principles as contained in Annex to A37-19 without amendments ]

OR

- a) MBMs should support the sustainable development of the international aviation sector; and should not impose an inappropriate economic burden on international aviation [ , particularly in developing countries ];
- b) MBMs should support the mitigation of CO<sub>2</sub> emissions from international aviation [ , and contribute towards achieving global aspirational goals ];
- c) MBMs should not be duplicative and international aviation CO<sub>2</sub> emissions should be accounted for only once;
- d) MBMs should [ minimize ] [ not lead to ] carbon leakage and market distortions;
- e) [ MBMs should respect the principle of non-discrimination and equal and fair opportunities among [ existing and new ] carriers ];
- f) [ MBMs should address Special Circumstances and Respective Capabilities (SCRC) of States; ] [ MBMs should abide by the principle of common but differentiated responsibilities and respective capabilities and address Special Circumstances of States; ]
- g) MBMs should recognize past and future achievements and [ further encourage and incentivize ] investments in aviation fuel efficiency and in other measures to reduce aviation emissions;
- h) [ MBMs should include de minimis provisions; ] [ MBMs should include exclusion threshold provisions for small aircraft or those participants with insignificant levels of activity or emissions. However, all operators serving on the same route must be treated equally to avoid competitive distortion; ]
- i) [ MBMs should not generate revenue; ] [ MBMs should not be a resource generation measure but focus exclusively on mitigation of emissions within the international aviation sector; ] [ where revenues are generated from MBMs, they should be applied in the first instance to mitigating the environmental impact of aircraft CO<sub>2</sub> emissions, including mitigation and adaptation, as well as assistance to and support for developing States; ]
- j) MBMs should be cost-effective;

- k) MBMs should be transparent and administratively simple;
- l) MBMs should facilitate appropriate access to [all] carbon markets; and
- m) MBMs should ensure the fair treatment of the international aviation sector in relation to other sectors.
- n) [ MBMs should be assessed in relation to various measures on the basis of performance measured in terms of CO<sub>2</sub> emissions reductions or avoidance, where appropriate; ] { from principle L in A37-19, Annex }
- o) [ where emissions reductions are achieved through MBMs, they should be identified in States' emissions reporting; ] { from principle O in A37-19, Annex }
- p) [ MBMs should not be implemented unilaterally by one State on another, but only through mutual consent of the participating State; ]
- q) [ MBMs should not be disguised restriction on international services and trade; ]
- r) [ MBMs should be coherent and compatible with the UNFCCC instruments and measures; ]
- s) [ MBMs should be consistent and compatible with the Framework for MBMs; ]

#### **D. Key Elements**

D1 States [or regions] should meet the following agreed elements in the design and implementation of an MBM to address CO<sub>2</sub> emissions from international aviation [if they choose to apply the MBM] on aircraft registered in other States [with mutual consent of participating State]:

#### **Participants**

D2 [The participants or accountable entities in a national or regional MBM are aircraft operators.]

D3 [States should provide notice of their intent to put in place an MBM and provide an opportunity for other States to provide their input with respect to their aircraft operators.]

D4 [ [ Upon finalization, ] national or regional MBMs should be applied to all aircraft [ of those States which have consented to such application as well as ] operating into or out of the State [or region]. ]

D5 [ The participants will only be States which participate voluntarily in the framework for MBMs. ]

D6 [ States should consult with the other participating States bilaterally to reach a mutual agreement before any such MBMs are implemented (in accordance with paragraph 14 of A37-19). ]

#### **Geographic Scope**

D7-1 [A State [or region] implementing an MBM for greenhouse gas (GHG) emissions of international aviation [(either individually or regionally)] should only apply such MBM to that portion

of an international flight of an aircraft registered in a foreign State within the airspace of the State [or the State of the region\_] in which the aircraft takes off or lands.]

OR

D7-2 [A State [or region\_] implementing an MBM for GHG emissions of international aviation [ (either individually or regionally)] should only apply such MBM to that portion of an international flight of an aircraft registered in a foreign State that takes off or lands in the implementing State [or region\_] within the airspace of the implementing State [or region].]

OR

D7-3 [A State [or region\_] implementing an MBM for GHG emissions of international aviation [ (either individually or regionally)] should only apply such MBM to that portion of an international flight of an aircraft registered in a foreign State that takes off or lands in the implementing State [or region\_] within the airspace and Flight Information Region (FIR) of the implementing State [or region].]

OR

D7-4 [A State [or region\_] implementing an MBM for GHG emissions of international aviation [ (either individually or regionally)] should only apply such MBM to that portion of an international flight of an aircraft registered in a foreign State that takes off , lands in or overflies the implementing State [ or region ] within the airspace of the implementing State [or region].]

OR

D7-5 [A State [or region\_] implementing an MBM for GHG emissions of international aviation [ (either individually or regionally)] should only apply such MBM to that portion of an international flight departing from a State's [or region's] territory and arriving in another State [or region].]

OR

D7-6 [MBMs application should be limited to the national boundaries of a State, limited to its national carriers, and if a State decides to implement MBM to air carriers of third States, there should be an agreement in place.]

### **Non Duplication**

D8 MBMs should be designed to ensure that a particular tonne of CO<sub>2</sub> emission is covered by only one MBM, and not multiple MBMs or other economic instruments.

### **~~Minimizing Market Distortion~~**

~~D9 An MBM should be designed and implemented in a manner which minimizes market distortion and avoids changes or shifts in the international aviation system resulting in unfair competition.~~

### **[ Special Circumstances and Respective Capabilities**

D10 An MBM should be designed and implemented in a way that takes into account the Special Circumstances and Respective Capabilities of [air operators and] States, while minimizing market distortion.

D11 [With respect to air operators, accommodation would be in the following forms:

- a) A de minimis exemption from the MBM for air operators with significantly low frequency of flights to the State [or regions].
- b) Additional credits or allowances or offsets provided to air operators with high growth (ie fast growth) to meet significant market demand; and
- c) Additional credits or allowances or offsets provided to air operators that have taken Early Action to improve fuel efficiency and reduce international aviation emissions.
- d) For new entrants. ]

D12 [ MBMs should not be a resource generation measure but focus exclusively on mitigation of emissions within the international aviation sector. ] To the extent that the implementing State [or region] distributes revenues generated from an MBM it should, in the first instance, use it to mitigate the environmental impact of aircraft CO<sub>2</sub> emissions. This could include assistance to and support for States with Special Circumstances and Respective Capabilities for specific projects identified in the State Action Plans or submitted to the ICAO Technical Co-operation Bureau (TCB) towards meeting ICAO's global goals. The existing ICAO system of monitoring and managing the implementation and outcome of these resources and projects will apply. ] ]

### **Administrative Simplicity**

D13 An MBM should be designed and implemented in a way that is administratively simple, non-intrusive and protects the confidentiality of relevant data for participants. To this end, a State [or region] putting in place an MBM should as far as possible, adopt the same methods and approaches that are already in use in the ICAO or industry such as regulatory financial reporting obligations for monitoring and reporting of participants' compliance with the MBM.

D14 The administrative cost should be kept minimal in order not to impose unnecessary cost burden on the air operators.

### **Compatibility**

D15 An MBM should be designed and implemented in a way that is compatible with WTO agreements and regulations.

-----

## **2. Global MBM Scheme**

### **(Proposals made at the HGCC/3 meeting)**

#### **A. Preamble**

A1 [ *Noting* the support of the aviation industry and civil society towards the development of a global market based measure to address international aviation emissions and their work in development of suitable approaches; ]

**B. Main Text**

B1 [ *Decides* to work towards the implementation of a global market based measure (MBM) to address the climate impacts of aviation.

*Invites* the Council to complete the following roadmap for a global MBM by the 39th ICAO Assembly:

- a) Assessment of, and agreement to, the most effective means of allocating emissions limits/responsibilities in a global MBM;
- b) Agreement to the effective and non-distortionary means of taking the special circumstances and respective capabilities of developing states into account within the design of a global MBM;
- c) Agreement to establish a harmonised monitoring, reporting and verification system for a global MBM;
- d) Assessment of, and agreement to, the effective means of administering a global MBM;
- e) Agreement to the quality criteria for offsets; and
- f) Agreement to a timetable and legal mechanisms for the introduction of a global MBM

*Requests* the Council to present the completed roadmap for endorsement by the 39th ICAO Assembly. ]

B2 [ *Requests* Council to develop, as a matter of priority, a common set of monitoring, reporting, and verification (MRV) standards for measuring GHG emissions from international aviation. ]

B3 [ 18. *Requests* the Council, with the support of member States and international organizations, to continue to evaluate three options for ~~explore the feasibility of~~ a global MBM scheme by undertaking further studies on the technical aspects, environmental benefits, economic impacts and the modalities of such a scheme, taking into account the outcome of the negotiations under the UNFCCC and other international developments, as appropriate, and to prepare a possible timeline for consideration of a global MBM scheme, ~~report the progress~~ for consideration by the 39<sup>th</sup>~~38<sup>th</sup>~~ Session of the ICAO Assembly; ]

B4 [ 18. *Requests* the Council, with the support of member States and international organizations, to continue to explore the feasibility of a global MBM scheme by undertaking further studies on the technical aspects, environmental benefits, economic impacts and the modalities of such a scheme, taking into account the outcome of the negotiations under the UNFCCC and other international developments, as appropriate, and report the progress for consideration by the 39<sup>th</sup>~~38<sup>th</sup>~~ Session of the ICAO Assembly; ]

B5 [ *Recognizes* that the feasibility of the global MBM scheme has not yet been established.

*Requests* the Council to continue to explore the feasibility of a global MBM scheme, as per paragraph 18 of the Assembly Resolution A37-19, taking into account the outcome of the negotiations under the UNFCCC. ]

— END —



International Civil Aviation Organization

**WORKING PAPER**

HGCC/3-WP/3

14/03/13

English only

**HIGH-LEVEL GROUP ON  
INTERNATIONAL AVIATION AND CLIMATE CHANGE (HGCC)**

**THIRD MEETING**

**Montréal, 25 to 27 March 2013**

**Agenda Item 3: Policy issues related to market-based measures (MBMs)**

**FACILITATING DISCUSSIONS ON  
A FRAMEWORK FOR MARKET-BASED MEASURES**

(Presented by the Republic of Singapore)

**1. BACKGROUND**

1.1 Under ICAO Assembly Resolution A37-19, paragraph 13, the Council was requested to develop a framework for Market-Based Measures (MBMs) for consideration by the 38th Session of the ICAO Assembly. The Council has established the High-level Group on Climate Change (HGCC) and there have been substantial discussions at its meetings in December 2012 and January 2013.

**2. DISCUSSION**

2.1 The HGCC Chairman had, at the 2nd meeting, formed a small group comprising Belgium, Brazil, China, India, Mexico, Singapore, UAE and the US to discuss the key issues relating to the MBM framework and to make progress in developing an outline of the framework for presentation to the HGCC. Singapore, as chair of the small group, had prepared a draft outline capturing the different options, positions and views expressed at that meeting to facilitate discussions on: 1) a preamble on the overarching considerations, 2) the purpose of the framework, 3) the guiding principles, and 4) key elements.

2.2 Upon the request of the HGCC Chairman to members to provide proposals to bridge the gap on issues for discussion at HGCC/3, Singapore has built on the draft to capture the positions, views and concerns members raised at the 2nd meeting and the small group. A draft framework for MBMs is attached at Appendix. The draft is not a reflection of Singapore's position, but one to facilitate discussions towards achieving consensus.

**3. RECOMMENDATION**

3.1 The HGCC is invited to consider the attached draft framework for MBMs.

-----

## APPENDIX

### FRAMEWORK FOR MARKET BASED MEASURES

#### **Preamble**

Recalling Assembly Resolution A37-19 requesting the Council, with the support of member States, to undertake work to develop a Framework for Market-Based Measures (MBMs) in international aviation, including further elaboration of the guiding principles listed in the Annex, for consideration by the 38th Session of the ICAO Assembly;

Emphasizing the vital role which international aviation plays in global economic and social development and the need to ensure that international aviation continues to develop in a sustainable manner;

Also recognizing the critical importance of ICAO providing leadership to the contribution of international aviation to address CO<sub>2</sub> emissions that contribute to global climate change;

Aware that a variety of measures have been, and will be, put in place by ICAO member States to contribute to the realization of the aspirational global goal, and recognizing that MBMs to address CO<sub>2</sub> emissions from international aviation are among these measures;

Acknowledging the principles and provisions on common but differentiated responsibilities and respective capabilities, and with developed countries taking the lead under the UNFCCC and the Kyoto Protocol;

Also acknowledging the principles of non-discrimination and equal and fair opportunities to develop international aviation set forth in the Chicago Convention;

#### **Purpose of a Framework for MBMs**

The Framework for MBMs outlines the guiding principles and key elements for States to abide by should a State or region voluntarily choose to implement an MBM applicable to CO<sub>2</sub> emissions from international aviation on aircraft registered in other States.

States designing or implementing an MBM applicable to international aviation CO<sub>2</sub> emissions should seek to demonstrate that the MBM is compatible with the Framework.

[An MBM that is implemented consistent with the Framework does not require the mutual consent of States. However, as the Framework provides generic guidance for the implementation of MBMs on air operators, and may not comprehensively cover all elements, air operators that may be unfairly affected by the implementation of an MBM could take its case to the State or region implementing the MBM and the State or region should address the issue immediately. If no agreement can be reached, the issue should be raised to and addressed by the ICAO Council.]

#### OR

[Mutual consent is still required for any State or regional MBM to be applied to any aircraft registered in a foreign State, but such consent shall not be unreasonably withheld if the MBM is compatible with the Framework.]

The Framework does not prejudice or set the precedence for negotiations under the United Nations (UN) Framework Convention on Climate Change or other UN bodies.

The Framework is mutually agreed among States but does not prejudice any State of its legal rights under international laws, including but not limited to the Chicago Convention.

This Framework is not intended to prejudice the implementation of a global MBM scheme for CO<sub>2</sub> emissions from international aviation and its design, although it could serve as a guide for its development; should a global MBM scheme be put in place, this Framework will cease to apply.

### **Guiding Principles**

The guiding principles for the design and implementation of MBMs are:

- a) MBMs should support the sustainable development of the international aviation sector; and should not impose an inappropriate economic burden on international aviation;
- b) MBMs should support the mitigation of CO<sub>2</sub> emissions from international aviation, and contribute towards achieving global aspirational goals;
- c) MBMs should not be duplicative and international aviation CO<sub>2</sub> emissions should be accounted for only once;
- d) MBMs should minimize carbon leakage and market distortions;
- e) MBMs should respect the principle of non-discrimination and equal and fair opportunities among carriers;
- f) MBMs should address Special Circumstances and Respective Capabilities (SCRC) of States;
- g) MBMs should recognize past and future achievements and investments in aviation fuel efficiency and in other measures to reduce aviation emissions;
- h) MBMs should include de minimis provisions;
- i) where revenues are generated from MBMs, they should be applied in the first instance to mitigating the environmental impact of aircraft CO<sub>2</sub> emissions, including mitigation and adaptation, as well as assistance to and support for developing States;
- j) MBMs should be cost-effective;
- k) MBMs should be transparent and administratively simple;
- l) MBMs should facilitate appropriate access to all carbon markets; and
- m) MBMs should ensure the fair treatment of the international aviation sector in relation to other sectors.

## Key Elements

States or regions should meet the following agreed elements in the design and implementation of an MBM to address CO<sub>2</sub> emissions from international aviation if they choose to apply the MBM on aircraft registered in other States:

### Participants

The participants or accountable entities in a national or regional MBM are aircraft operators.

States should provide notice of their intent to put in place an MBM and provide an opportunity for other States to provide their input with respect to their aircraft operators.

Upon finalization, national or regional MBMs should be applied to all aircraft operating into or out of the State or region.

### Geographic Scope

[A State or region implementing an MBM for greenhouse gas (GHG) emissions of international aviation (either individually or regionally) should only apply such MBM to that portion of an international flight of an aircraft registered in a foreign State within the airspace of the State or the State of the region in which the aircraft takes off or lands.]

### OR

[A State or region implementing an MBM for GHG emissions of international aviation (either individually or regionally) should only apply such MBM to that portion of an international flight of an aircraft registered in a foreign State that takes off or lands in the implementing State or region within the airspace of the implementing State or region.]

### OR

[A State or region implementing an MBM for GHG emissions of international aviation (either individually or regionally) should only apply such MBM to that portion of an international flight of an aircraft registered in a foreign State that takes off or lands in the implementing State or region within the airspace and Flight Information Region (FIR) of the implementing State or region.]

### OR

[A State or region implementing an MBM for GHG emissions of international aviation (either individually or regionally) should only apply such MBM to that portion of an international flight of an aircraft registered in a foreign State that takes off, lands in or overflies the implementing State or region within the airspace of the implementing State or region.]

### OR

[A State or region implementing an MBM for GHG emissions of international aviation (either individually or regionally) should only apply such MBM to that portion of an international flight departing from a State's or region's territory and arriving in another State or region.]

### Non Duplication

MBMs should be designed to ensure that a particular tonne of CO<sub>2</sub> emission is covered by only one MBM, and not multiple MBMs or other economic instruments.

### **Minimizing Market Distortion**

An MBM should be designed and implemented in a manner which minimizes market distortion and avoids changes or shifts in the international aviation system resulting in unfair competition.

### **Special Circumstances and Respective Capabilities**

An MBM should be designed and implemented in a way that takes into account the Special Circumstances and Respective Capabilities of air operators and States, while minimizing market distortion.

With respect to air operators, accommodation would be in the following forms:

- a) A de minimis exemption from the MBM for air operators with significantly low frequency of flights to the State or regions.
- b) Additional credits or allowances or offsets provided to air operators with high growth (ie fast growth) to meet significant market demand; and
- c) Additional credits or allowances or offsets provided to air operators that have taken Early Action to improve fuel efficiency and reduce international aviation emissions.

To the extent that the implementing State or region distributes revenues generated from an MBM it should, in the first instance, use it to mitigate the environmental impact of aircraft CO<sub>2</sub> emissions. This could include assistance to and support for States with Special Circumstances and Respective Capabilities for specific projects identified in the State Action Plans or submitted to the ICAO Technical Co-operation Bureau (TCB) towards meeting ICAO's global goals. The existing ICAO system of monitoring and managing the implementation and outcome of these resources and projects will apply.

### **Administrative Simplicity**

An MBM should be designed and implemented in a way that is administratively simple, non-intrusive and protects the confidentiality of relevant data for participants. To this end, a State or region putting in place an MBM should as far as possible, adopt the same methods and approaches that are already in use in the ICAO or industry such as regulatory financial reporting obligations for monitoring and reporting of participants' compliance with the MBM.

The administrative cost should be kept minimal in order not to impose unnecessary cost burden on the air operators.