Aviation is a catalyst for growth, a vital conduit for world trade and a major global employer. Nearly $2.2 trillion in global GDP, 35% of world trade by value and 57 million jobs are supported by aviation. Aviation plays a key role in promoting sustainable development and should remain safe, affordable and accessible in order to ensure mobility on an equitable basis to all sectors of society.

With these benefits comes an impact on the environment. In 2012, aviation produced 689 million tonnes of CO₂, or around 2% of the global total. The industry has shown remarkable progress in not only increasing efficiency from its operations, but also establishing a plan to stabilise emissions from the sector and reduce them below 2005 levels in the long-term.

COMMITMENT TO CLIMATE ACTION

The aviation sector recognises the need to address the global challenge of climate change and is playing its part: in 2009, it adopted an ambitious set of commitments for the short-, medium- and long-term, including that of carbon-neutral growth from 2020 contingent upon critical aviation infrastructure and technology advances achieved by the industry and governments.

To achieve these goals, there needs to be a strong commitment from all stakeholders, including governments and non-governmental organisations, working together to implement a four pillar strategy:
1. improved technology.
2. more efficient aircraft operations.
3. infrastructure improvements.
4. a properly-designed market-based measure (MBM) to fill any remaining emissions gap.

The UN International Civil Aviation Organization (ICAO) must continue to play the leading role in these efforts. The aviation industry is working towards these goals by developing new, fuel-efficient technologies such as lighter weight materials and advanced engine and airframe designs, improving operational efficiency, supporting the deployment of modernised infrastructure and the commercialisation of sustainable alternative fuels. In addition, the industry is also supporting the work of ICAO’s Committee on Aviation Environmental Protection (CAEP) on an aircraft CO₂ standard.

The industry is confident technology, operations and infrastructure measures will provide long-term solutions for aviation’s sustainable growth. However, the industry recognises that some form of global MBM may be needed to fill any remaining emissions gap. An MBM for aviation should only be considered as part of a broader package of measures to address aviation’s CO₂ emissions; it should not be focused on suppressing demand for air travel or raising general revenues.

In June 2013, the worldwide memberships of ACI (see back page) and IATA adopted resolutions, and CANSO and IBAC issued statements aimed at urging States and other stakeholders to work collaboratively through ICAO to reach an agreement on measures to address CO₂ emissions from aviation as part of a comprehensive package at the UN agency’s 38th Assembly in 2013.

AN HISTORIC AGREEMENT

After two weeks of negotiations, following many years of discussions, delegates representing 191 countries have agreed a resolution charting the

KEY POINTS:

The world’s governments, meeting at the International Civil Aviation Organization in October 2013, agreed to develop a global market-based measure for international aviation emissions.

The period until the next ICAO Assembly (in 2016) will be spent developing the building blocks of the global MBM, including technical discussions on MRV requirements and quality of offsets that can be used under the scheme. The 2016 Assembly is expected to sign off on the design of the MBM.

The MBM will be implemented from 2020 and is seen as part of a ‘basket of measures’ being developed, including new technology, improved operations, alternative low carbon fuels and more efficient infrastructure.

The aviation industry has pushed for such a global scheme, to be designed through a multilateral process lead by ICAO, the UN specialised agency for civil aviation, since 2008.

The industry has played a key role and developed the recognised targets for reducing emissions from aviation:
1. Improve fleet fuel efficiency by 1.5% per year from now until 2020.
2. Stabilise net emissions from 2020 through carbon-neutral growth.
3. By 2050, net aviation carbon emissions will be half of what they were in 2005.

The industry encourages governments to work through the ICAO process to design the building blocks for a global MBM by 2016 and remains committed to assisting in this process in whatever way is useful.
way forward for tackling aviation’s climate change impact. On 4 October 2013, the member states of ICAO adopted an unprecedented resolution in which they:

- Decided to develop a global MBM for international aviation, effective from 2020.
- Requested that the work needed on the building blocks be completed by the next Assembly in 2016.
- Asked that any design of an MBM should apply ICAO guiding principles, such as:
  - Avoiding duplication, carbon leakage and market distortions.
  - Taking into account CBDR, SCRC* and non-discrimination.
- Rejected a unilateral ‘airspace’ approach to MBMs on international aviation.

In the meantime (for any MBMs being put in place between 2013 and 2020), states are asked to:

- Seek bilateral or multilateral agreement when using MBMs for international aviation.
- Grant de minimis exemption on routes to and from developing states with less than 1% of global revenue tonne kilometres, a measurement of aviation activity (to be reviewed in 2015).

This agreement is a significant milestone in international climate negotiations. It will be the first sectoral measure applied internationally.

THE NEXT STEPS AT ICAO

The aviation industry will provide all assistance needed over the next three years to help in the design of the building blocks needed for the single global MBM. In particular, technical work can begin quickly on the development of standards for: the monitoring, reporting and verification of emissions from aviation; the quality of offsets that can be used for the global MBM; and the design and linking of carbon registries.

Progress also needs to be made in designing the global MBM itself, including decisions on the geographic scope and the need to take into account the different levels of operator activity, developing states and emerging markets. The deliberations may utilise work already done by airlines under the International Air Transport Association, where a set of principles has been established (see box on right).

Of the three policy mechanisms under consideration at ICAO for a possible global MBM (carbon offsetting; carbon offsetting with revenue generating component; and a global ETS), industry believes that a simple carbon offsetting scheme would be the quickest to implement, the easiest to administer and the most cost-efficient.

As work within ICAO continues to develop a comprehensive proposal towards a single, global MBM, any other measure that a State proposes or continues to impose with respect to international aviation on the aircraft operators from another State in the meantime, should only be in accordance with agreed ICAO principles and in the spirit of the resolution agreed at ICAO.

THE IMPORTANCE OF A GLOBAL APPROACH

Any MBM applied to aviation must be global in scope, preserve fair competition, and take account of different types and levels of operator activity. The safe, orderly and efficient functioning of today’s air transport system relies on a high degree of uniformity in regulations, standards and procedures. The implementation of unilateral measures undermines this foundation. Particular attention needs to be given to avoid duplication with existing measures, or the layering of measures within a State or a group of States.

Many airlines / aircraft operators fly into dozens of different jurisdictions on a daily basis, with some large network carriers serving over a hundred different countries each day; they need to have a single point of accountability. Also, small aircraft operators would face overwhelming administrative challenges in complying with a multiplicity of different schemes. To promote transparency and keep down administration costs, the monitoring, reporting and verification (MRV) requirements related to an MBM should be kept as simple as possible and should be scalable to accommodate both large and small operators, while ensuring data integrity.

UNILATERAL RESPONSE MEASURES ARE NOT USEFUL

The use of unilateral measures, regulating foreign operators without the consent of their governments, critically undermines this foundation. It also puts aviation at risk of being caught in a web of uncoordinated, costly and ineffective measures and countermeasures imposed by governments, which will benefit no one but may have adverse economic and environmental impacts worldwide.

Less than two weeks after the adoption of the ICAO Resolution, the European Commission proposed a revision of its emissions trading scheme to cover all flights operating within European airspace, including...
international services from and to the European borders. The industry fears that this proposal could result in retaliatory measures and erode the good faith gained by parties at the ICAO negotiations. We are also concerned about the impact this may have on the further work at ICAO to develop the global MBM. We urge the European Commission and member states to reconsider their approach and refocus efforts on agreeing a global scheme.

**THE ROLE OF PARTIES AT THE UNFCCC**

The process at ICAO has been decided and will be enacted through ICAO processes such as the CAEP and ICAO Council. The aviation industry will continue to be fully engaged in that process and provide assistance and support where needed. We invite parties meeting under the United Nations Framework Convention on Climate Change (UNFCCC), to continue to monitor the progress of ICAO discussions through regular reporting by ICAO to the Subsidiary Body for Scientific and Technological Advice (SBSTA) and to take part in the ongoing work at ICAO through their normal channels.

**PRINCIPLES FOR DETERMINING RESPONSIBILITIES FOR INDIVIDUAL AIRCRAFT OPERATORS UNDER A SINGLE, GLOBAL MBM**

1. Market-based measures (MBMs) for aviation should only be considered as part of a broader package of measures to address aviation’s CO2 emissions that cannot otherwise be achieved through cost-effective, in-sector reduction measures.
2. MBMs should not be designed or used to raise general revenues or to suppress demand for air travel.
3. Given the globally competitive nature of the aviation industry, any MBM agreed by governments must be cost-efficient and preserve fair competition.
4. Any MBM for aviation must fulfill the key criteria of maximising environmental integrity, while minimising competitive distortion and administrative complexity.
5. When agreeing to an MBM for aviation, only governments can decide whether to take into account – and, if so, how – the special circumstances and respective capabilities of States (SCRC). However, if they choose to do so, it should be done in such a way as to minimise market distortion by granting equal treatment to all operators on a given route.
6. Any MBM to operationalise CNG2020 should be easy to implement and administer as well as cost-efficient. The industry believes that alignment with this principle would be better achieved with a single mandatory offsetting scheme than with alternatives.
7. The following principles for determining individual operator responsibilities under CNG2020 would help ensure that the collective industry CNG2020 commitment to offset its growth post-2020 is equitably and fairly distributed among carriers:
   - the collective industry emissions baseline for CNG2020 should be defined as the average annual total emissions over the period 2018-2020;
   - individual operator baselines should be defined as and fixed at each operator’s average annual total emissions over the period 2018-2020;
   - a new entrant provision should be included that provides an adjustment for the first two years of operation;
   - individual carrier responsibilities should be fairly determined using an equitable balance between an ‘emissions share’ element (reflecting the individual carrier’s share of total industry emissions) and a post-2020 ‘growth’ element (reflecting the individual carrier’s growth above baseline emissions);
   - specific adjustments for fast- and high-growth should be applied when determining individual carrier responsibilities so as to alleviate the burden on fast-growing carriers;
   - an early movers provision, based on a 15-year benchmarking timeframe (2005-2020) and combined with a five-year sunset clause (2020-2025) should be incorporated to recognise carbon reduction measures taken prior to 2020;
   - an additional adjustment should be made to ensure any net reductions in emissions below an individual carrier’s baseline are captured for use by the industry as a whole;
   - data integrity should be ensured through an industry-accepted ICAO standard for the monitoring, reporting and independent verification of emissions data;
   - emissions data reporting should be kept simple with flexibility for operators to select from a hierarchy of reporting methodologies;
   - a periodic CNG2020 performance review cycle should be mandated to assess the proper functioning of the mechanism and to revise individual elements and parameters as appropriate.

* SCRC, or special circumstances and respective capabilities, is an ICAO term which recognises the different levels of maturity of aviation markets.
Towards Sustainable Aviation

Aviation brings enormous benefits to communities and economies around the globe. It is a key enabler of economic growth, social development and tourism providing connectivity and access to markets. Air transport, currently supporting $8.6 trillion of global GDP with a strong track record of fuel efficiency and CO2 emissions savings, is a strategic contributor to sustainable development.

Our goals and achievements to-date

As leaders of our aviation industry, we signed a Declaration in 2008 committing ourselves to action on climate change. Since then we have delivered a set of ambitious goals and implemented initiatives to meet them. We are delivering already on our short-term promises for fuel efficiency of 1.5% per annum improvement through to 2020 and are tallying on track to meet our longer term commitments.

Now, we, the undersigned aviation industry companies and the international partners of the Air Transport Action Group, representing global commercial aircraft and engine manufacturers, representing 240 airlines, comprising 84% of global air traffic.

The International Coordinating Council of Aerospace Industries Associations, representing 80 air navigation service providers, serving over 85% of global air traffic.

International Air Transport Association, representing 240 airlines, comprising 84% of global air traffic.

International Coordinating Council of Aerospace Industries Associations, representing global commercial aircraft and engine manufacturers.

International Business Aviation Council, representing over 8,500 companies operating in the global business aviation community.

This paper was developed based on the industry-wide position of the following organisations for the ICAO 38th Assembly, representing the combined global commercial aviation sector, and coordinated by the Air Transport Action Group:

- Airports Council International, representing over 1,750 airports serving 95% of the world’s passengers.
- Civil Air Navigation Services Organisation, representing 80 air navigation service providers, serving over 85% of global air traffic.
- International Coordinating Council of Aerospace Industries Associations, representing global commercial aircraft and engine manufacturers.
- International Business Aviation Council, representing over 8,500 companies operating in the global business aviation community.

Facts and figures on aviation’s global economic and social benefits can be found at www.aviationbenefitsbeyondborders.org

Facts and figures on aviation’s global efforts to reduce emissions can be found at www.enviro.aero