



DIRECTORS GENERAL OF CIVIL AVIATION-MIDDLE EAST REGION

Third Meeting (DGCA-MID/3) (Doha, Qatar, 27-29 April 2015)

Agenda Item 7: Environmental Issues

INTERNATIONAL CIVIL AVIATION AND THE ENVIRONMENT

(Presented by the Secretariat)

SUMMARY

This paper provides a summary of the main developments on the actions requested by the 38th Session of the ICAO Assembly in the field of international aviation and climate change, in particular those actions relating to the following key areas: 1) technological and operational measures; 2) sustainable alternative fuels for aviation; 3) market-based measures; 4) States' action plans; and 5) assistance to States.

Action by the meeting is in paragraph 7.

1. INTRODUCTION

2.1 The 38th Session of the ICAO Assembly, held from 24 September to 4 October 2013, adopted Resolutions A38-17: *Consolidated statement of continuing ICAO policies and practices related to environmental protection – General provisions, noise and local air quality*, and A38-18: *Consolidated statement of continuing ICAO policies and practices related to environmental protection – Climate change*. While the Assembly recognized the critical importance for the Organization to continue to address aircraft noise and emissions that affect local air quality, the Resolution A38-18 also reflects the determination of ICAO's Member States to continue to play a leading role in contributing to global efforts to address climate change by working further through ICAO to limit or reduce CO₂ emissions from international aviation.

2. TECHNOLOGICAL AND OPERATIONAL MEASURES AND GLOBAL ASPIRATIONAL GOALS

2.1 A major area of activity in the field of international aviation and climate change is the development of a technical CO₂ certification Standard for aircraft, being undertaken by ICAO's Committee on Aviation Environmental Protection (CAEP). Significant efforts were directed for the consensus agreement of certification requirements¹ at the ninth CAEP meeting in February 2013, which allowed CAEP to move to the next stages on the analysis of an appropriate regulatory limit for the Standard, aiming for the full Standard by 2016.

¹ ICAO Circular 337 (CAEP/9 Agreed Certification Requirement for the Aeroplane CO₂ Emissions Standard)

2.2 Operational measures are also an important element in the basket of measures available to States to reduce aviation emissions. In order to continue informing States on the environmental benefits of implementing operational measures, CAEP has completed a preliminary analysis of fuel savings associated with Aviation System Block Upgrades (ASBU) Block 0 modules and has embarked on a more detailed evaluation. The results of the preliminary analysis are available in the 2014 Air Navigation Report. This is in addition to Doc 10031, *Guidance on Environmental Assessment of Proposed Air Traffic Management Operational Changes*, and the ICAO Fuel Savings Estimation Tool (IFSET)² that have been developed.

2.3 The IFSET is intended to assist States in estimating fuel savings in a manner that is consistent with the models approved by CAEP and in line with the ICAO Global Air Navigation Capacity and Efficiency Plan, and as part of the development and the implementation of States' action plans (see paragraph 5 below). The tool is not intended to replace the use of detailed measurement or modelling of fuel savings where those capabilities exist. Rather, it is provided to assist States without such facilities to estimate the benefits from operational improvements.

2.4 The 38th Assembly also considered the global CO₂ trends assessment, which reflected the consensus agreement of the ICAO CAEP and estimated the contribution of various categories of mitigation measures to reduce aviation CO₂ emissions (technologies, operational improvements and alternative fuels). The CO₂ trends assessment was recommended as the basis for decision-making during the 38th Assembly, which subsequently adopted the collective global aspirational goals for the international aviation sector of improving 2 per cent fuel efficiency per year and keeping net CO₂ emissions from 2020 at the same levels.

3. SUSTAINABLE ALTERNATIVE FUELS FOR AVIATION

3.1 The 38th Assembly highlighted the progress achieved in facilitating the development and deployment of sustainable alternative fuels for aviation, including information sharing on best practices among States and other stakeholders through ICAO's online platform, the Global Framework for Aviation Alternative Fuels (GFAAF)³, which integrates data on hundreds of global activities and initiatives.

3.2 The Assembly also supported further work by ICAO and its Member States to address the challenges in the development and deployment of sustainable alternative fuels for aviation, including the work on sustainability criteria and the projection of future production and life-cycle environmental benefits of such fuels. Following the Assembly, CAEP established a new Alternative Fuel Task Force (AFTF) to undertake these technical tasks.

4. MARKET-BASED MEASURES (MBMS)

4.1 The agreement of the 38th ICAO Assembly on the development of a global market based measures (MBM) scheme for international aviation, reflects the strong support of Member States for a global solution for the international aviation industry. Significant efforts need to be undertaken as the Organization moves forward in developing a recommendation for a global MBM scheme capable of being implemented from 2020, for decision by the 39th Session of the Assembly in 2016.

4.2 In this regard, in February 2014, the ICAO Council agreed on a clear process and roadmap, with expected milestones and necessary governance structure, including the establishment of the Environment Advisory Group (EAG). The EAG has been working on a global MBM scheme under the direction of the Council, using a "Strawman" approach, which started with a simple and basic proposal for a global MBM scheme with a view to generating the discussion on advantages and disadvantages of design elements and allowing for the improvements of the Strawman. This iterative approach will also ensure the full engagement of States and other stakeholders, taking into account inputs from different sources.

²<http://www.icao.int/environmental-protection/Pages/Tools.aspx>

³<http://www.icao.int/environmental-protection/GFAAF/Pages/default.aspx>

4.3 ICAO also conducted MBM Global Aviation Dialogues (GLADs) in April 2015 in five ICAO Regions, including one in Cairo, Egypt from 20 to 21 April 2015, to share up-to-date information on the work of ICAO related to the development of a global MBM scheme for international aviation, and provide an important opportunity for ICAO to receive feedback from all its Member States and relevant organizations.

5. STATES'S ACTION PLAN INITIATIVE

5.1 The 38th Assembly acknowledged the successful outcome of the ICAO initiatives with respect to the development and submission of States' action plans on CO₂ emissions reduction from international aviation. The Assembly encouraged Member States to submit more complete and robust data in their action plans to facilitate the compilation of global emissions data by ICAO, and emphasized the need for the Secretariat to provide further guidance and other technical assistance.

5.2 Responding to this request, ICAO convened a series of back-to-back seminars in 2014 and 2015 on International Aviation and Environment and on States' Action Plans. In total, seven seminars were held in Mexico and Peru in April 2014, in Cameroon and Kenya in June 2014, in Malaysia in October 2014, in the United Arab Emirates (UAE), from 10 to 12 March 2015, and in Poland in March 2015. The material presented during each seminar is available on the ICAO action plan website⁴.

5.3 Approximately 84 attendees from 8 States participated in the Dubai seminar that was hosted by the General Civil Aviation Authority of UAE. The presentations by States regarding their efforts to develop and implement action plans showcased the broad range of initiatives within the Middle East region. Proposed actions included air traffic management improvements, changes to aircraft operating procedures, and the deployment of sustainable alternative fuels.

5.4 As of March 2015, 77 States representing over 80 per cent of global international air traffic submitted action plans to ICAO. The Secretariat continues to assist States in developing and updating action plans. The voluntary submission of new or updated action plans to ICAO is expected by the end of June 2015, as encouraged by the 38th Session of the ICAO Assembly.

6. ASSISTANCE TO STATES

6.1 The high level of interest, cooperation and engagement of Member States and other stakeholders in the action plans initiative and the substantial progress made was due in large part to a robust capacity building programme. This programme needs to be continued and further strengthened.

6.2 As part of efforts to provide further assistance to States and facilitate access to financing for the development and implementation of States' action plans, ICAO established partnerships with the European Commission (EC), as well as with the United Nations Development Programme (UNDP) with the Global Environment Facility (GEF) financing.

6.3.1 EC PROJECT

6.3.1.1 In December 2013, ICAO signed an agreement on the ICAO-EU joint assistance project, *Capacity Building for CO₂ Mitigation from International Aviation*, which is a Euro 6.5 million project with an estimated duration of 42 months.

6.3.1.2 The project involves 14 States from the African and Caribbean regions, and encompasses three areas of activities: development of States' action plans; establishment of an aviation environmental system; and identification and implementation of measures to reduce aviation emissions. The project will also support the exchange of experiences and best practices amongst the participating States, allowing those with less expertise to learn from others, in the spirit of the ICAO initiative "No Country Left Behind".

⁴ <http://www.icao.int/Meetings/EnvironmentalWorkshops/Pages/2014-Seminars.aspx>

6.3.1.3 “Kick-off” Seminars for the Caribbean States were held in the Dominican Republic in December 2014, and in Cameroon in February 2015 for African States, hosted by the Governments of the Dominican Republic and Cameroon, respectively.

6.3.2 UNDP-GEF PROJECT

6.3.2.1 In November 2014, GEF approved the joint ICAO- UNDP assistance project, *Transforming the Global Aviation Sector: Emission Reduction from International Aviation*.

6.3.2.2 ICAO-UNDP’s joint project with the GEF financing includes identifying and facilitating the implementation of measures to reduce international aviation CO₂ emissions. An important element of this 2 million USD project is a practical pilot project in Jamaica, consisting of the implementation of a CO₂ reduction measure that could be replicated in other Developing States.

7. ACTION BY THE MEETING

7.1 The meeting is invited to:

- a) encourage States in the region to develop, update and submit their action plans by the end of June 2015;
- b) continue to consider environmental issues in the planning and implementation of regional air navigation systems;
- c) promote the use of IFSET to estimate the fuel savings and corresponding environmental benefits from the implementation of operational improvements, as part of the development of States’ action plans; and
- d) note the availability of further assistance by ICAO in the preparation and submission of States’ action plans.

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