



International Civil Aviation Organization

**DISCUSSION PAPER**

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**GROUP ON INTERNATIONAL AVIATION AND CLIMATE CHANGE (GIACC)**

**SECOND MEETING**

**Montréal, 14 to 16 July 2008**

**Agenda Item 3: Planning of actions and policy elements to be developed by the Group**

**GIACC/2 DISCUSSIONS REGARDING TEMPLATE QUESTIONS**

(Presented by the Secretariat)

**1. INTRODUCTION**

1.1 This document summarizes the discussion of the Template of questions discussed at GIACC/2 as reflected in the summaries of discussion. The template questions were a consolidation of questions raised by 8 Members in response to a process adopted by GIACC/1. For purposes of facilitating the discussion at GIACC/2, the questions were grouped into categories of similarity. That grouping is reflected in the structure of the document.

1.2 The GIACC/2 was unable to come to a consensus on all elements of all of the template questions. To progress this work, the GIACC/2 established 3 working groups to further consider the topics and assigned a mandate for each group to bring concrete proposals for consideration at GIACC/3. The following is a summary of the consensus reached to date on GIACC/2-WP/2, Consolidated GIACC Template.

**2. TEMPLATE QUESTIONS (TQ)**

**TQ 5: GIACC's report to Council will need to encompass goals, a menu of options to limit or reduce emissions and ways to measure progress. What should be the balance between these elements of the report?**

The Group agreed with the consensus view of respondents that, consistent with its Terms of Reference as set forth in Assembly Resolution A36-22, Appendix K, all three elements — global aspirational goals, measures to limit or reduce emissions and monitoring of progress — would be included in its report to the Council in a balanced manner. The global aspirational goals were to be in the form of fuel efficiency. It was pointed out that the GIACC should not limit its consideration to fuel efficiency goals and should not preclude further discussion of global aspirational goals. It was agreed that the report would also elaborate on the provision of technical support and financing to developing countries to implement the said measures and that a range of options should be provided so as to afford

industry members, in addition to States, the opportunity to find viable alternatives to the *status quo* which would take into account all aviation-related activities, locations and economic circumstances.

**TQ 24: How should GIACC organize itself to deliver its terms of reference in time for the high-level meeting planned in September 2009 as requested by ICAO Council?**

In summarizing the discussion, the Chairperson indicated that the GIACC would maintain its original program of four meetings agreed upon at GIACC/1, on the understanding that it would consider the possibility of convening a fifth meeting at GIACC/3 in light of the progress made. It would aim to provide an interim report to the UNFCCC COP15 process in June 2009. The Group would finalize its report after its last meeting, following which the envisaged high-level meeting would take place as decided by the Council. A final report would then be submitted to the UNFCCC COP15 process. The Group would also present periodic progress reports to the 185th and subsequent sessions of the Council.

**TQ 26: Should we identify communications and public relations as a key issue for ICAO to address? What is the appropriate role for ICAO in this regard?**

The Chairperson noted from the Members' replies that there was consensus that effective communication was important. ICAO has been active and should continue to lead; that activities such as the ICAO Colloquium on Aviation Emissions (Montréal, 14-16 May 2007) and the *ICAO Environmental Report 2007* should be encouraged; that ICAO should be more proactive with the UNFCCC in promoting air transportation, its efficiency, economic impact and environmental achievement; and that any ICAO communication should not be seen as industry self-promotion.

**TQ 3: What time scale should be considered by GIACC when setting short-, medium- and long-term goals for international aviation?**

A consensus was emerging that 2012 should be the short-term timeframe; 2020, the medium-term timeframe; and 2050, the long-term timeframe.

**TQ 2: What short-, medium- and long-term goals should the GIACC suggest, taking into account that any ICAO proposals should respect the different circumstances of various countries' aviation markets, be considered acceptable and credible by third parties and improve public opinion? Should it focus on international aviation on a global basis? What are the options?**

There was consensus among respondents that fuel efficiency should be the short-term global aspirational goal and carbon neutral growth, the medium-term goal, recognizing the post-2012 UNFCCC mechanism. The Chairperson recalled that there had been general agreement that the principle of common but differentiated responsibilities should be maintained.

The Chairperson noted that the Group had agreed that the global aspirational goals should be focussed on fuel efficiency in the short-term, should recognize developments in the post-2012

UNFCCC mechanism and should reflect the respective timeframes and capabilities, with a view to achieving: a) in the short-term, an improvement of international in-service fleet fuel efficiency; b) in the medium-term, carbon neutrality of international civil aviation; and c) in the long-term, a reduction in the carbon footprint of international civil aviation.

**TQ 4: How should GIACC deal with other aviation emissions that have climate change-forcing characteristics? Should GIACC make specific recommendations to deal with the significant scientific uncertainties?**

The Chairperson indicated that the Group agreed that it should focus on CO<sub>2</sub> emissions while taking into account that other emissions might also contribute to climate effects.

**TQ 9: What are the key elements that would be needed to demonstrate an urgent Programme of Action on climate change?**

The Chairperson noted that consensus had been reached that the Programme of Action must be as comprehensive as possible and should be based on a comprehensive, multi-path approach comprising technological advances, the setting of technological Standards, operational measures, infrastructural measures, including improvements in ATM, market-based measures and voluntary measures. Those measures should be linked to the short-, medium- and long-term timeframes established for the global aspirational goals and should be considered on the basis of the availability of technology, the cost and ease of implementation. The measures were not directed solely at industry: there was a role for States, particularly in their provision of air traffic services.

**TQ 11-3: Should an element of the Programme of Action include an accelerated fleet renewal by airlines? Early retirement of inefficient aircraft?**

**TQ 11-4: What is the role of market-based measures such as emissions-trading and/or compensatory measures such as the Clean Development Mechanism in addressing aviation emissions?**

**TQ 11-5: Will the GIACC consider positive economic incentives directed at aircraft, airlines, manufacturers, infrastructure, etc.?**

**TQ 11-6: What measures can Member States take to facilitate increased research and development in new technologies, alternative fuels and long-term solutions?**

The Chairperson noted that there had been consensus among respondents regarding the need for continued research and development in new technologies and alternative fuels and the importance of technological advances, both airside and groundside, of ATM modernization and of the dissemination of best practices.

- TQ 12-2:** What mechanism should be established to ensure that States can make their own selection from a menu of measures while avoiding unwanted effects, such as distortion of competition?
- TQ 13:** What are your views on the short-, medium- and long-term measures which might be adopted within your region related to emissions reduction potential in your region?
- TQ 14-1:** What are the possible barriers to achieving emissions reductions and what are your views on the possible mechanisms that could assist States in overcoming these barriers and achieving emissions reductions?
- TQ 14-2:** How should the special situation of developing countries and of the differential nature of their actions in mitigating aircraft GHG emissions be recognized? What are their expectations and how are they different from developed countries? Should GIACC describe a financing mechanism to assist developing countries?
- TQ 14-3:** What recommendations does your State/region have for fostering innovation and dissemination of technology? How best to deal with technological interdependencies and the roles and responsibilities of industry stakeholders?
- TQ 16:** How can existing ICAO work inform GIACC? How does ICAO's work on market-based measures (MBMs) add value? What are the aviation-specific issues with MBM? What is the available ICAO data? How reliable is it?
- TQ 18:** Will GIACC identify mechanisms to extend the availability of voluntary offset schemes to ensure the effectiveness of offset schemes and to increase the levels of take-up by passengers? What is the role of voluntary offset mechanisms?
- TQ 21:** How can a framework be established for linking measures adopted on a bilateral or regional basis towards a global approach?

Having concluded its discussion of template questions 12-2, 13, 14-1, 14-2, 14-3, 16, 18 and 21, the GIACC referred them to the relevant working group for consideration.

- TQ 1:** What input data would you consider needed to enable GIACC to develop a fuel efficiency goal?
- TQ 6:** What type of metric should be the basis of a fuel efficiency goal: global in-service fleet, regional, national, by operator?
- TQ 19:** What data can you provide about current and projected emissions and the fuel efficiency performances of the carriers operating in your region?
- TQ 22:** From what areas of CAEP's work could GIACC benefit? What other information should GIACC solicit from States, CAEP, industry, others? What other sources of information are relevant? What are possible legal or practical barriers in providing information?

The Chairperson observed that there was consensus among the respondents that States could provide some level of data on fuel burn. She noted that the Group agreed on the short- and longer-term approaches to the collection and analysis of data with the existing modelled data and CAEP model being used in the short-term and more precise data and possibly another metric being used for the longer-term.

- TQ 10:** Taking into account the information received at GIACC/1, what are your views about the range of potential emissions reductions that might be achieved by these elements? Which do you think offer the greatest scope for improvements?
- TQ 11-1:** What is the role for improved operational and maintenance practices in reducing aviation emissions? Should recommendations be included in the Programme of Action?
- TQ 11-2:** What are the actions that can be taken at airports to reduce emissions (night operations, better zoning, more efficient ground movements, CDA, gate power, decentralized parking, etc)?
- TQ 11-7:** What can be done to stimulate the developments and use of renewables such as biofuels?

Referring to template questions 11-1, 11-2 and 11-7, the Chairperson observed that there had been consensus among respondents regarding the role of technological advances airside and groundside, the modernization of ATM and the dissemination of best practices in reducing aviation emissions.

- TQ 8: Should GIACC recommend reporting requirements for States? What form should they take?**
- TQ 15: What is ICAO's value added versus that of the UNFCCC?**
- TQ 17: What future framework should there be for collecting data and keeping them updated?**
- TQ 20: What are the mechanisms required for collection, consolidation and reporting data? What should be the respective role of ICAO, Member States, UNFCCC, industry and other stakeholders?**
- TQ 23: How can the GIACC make sure that it cooperates adequately with other UN bodies, such as UNFCCC? What is necessary to keep in line with developments in UNFCCC?**
- TQ 25: Should a new role for ICAO be identified, such as environmental audits? Can ICAO identify and disseminate best practices?**

The Chairperson indicated that the Group should not aim at a conclusive consensus on these issues pending further discussions within the UNFCCC, which would provide greater clarity and guide the GIACC's work forward.

The Chairperson noted that a consensus was emerging that it was premature to consider the issue of an environmental audit function for ICAO. She observed that the common theme from the exchange of views was the primacy of ICAO's role in addressing international aviation emissions and the placing of certain responsibilities on the Organization to take the process forward.

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