



WORKING PAPER

**HIGH-LEVEL MEETING ON INTERNATIONAL AVIATION
AND CLIMATE CHANGE**

Montréal, 7 to 9 October 2009

Agenda Item 1: Aspirational goals and implementation options

ASPIRATIONAL GOALS

(Presented by Sweden, on behalf of the European Community and its Member States¹ and by the other States Members of the European Civil Aviation Conference²)

SUMMARY

This paper outlines measures that should be taken at ICAO level with regard to the identification of aspirational goals.

Action by the HLM-ENV is in paragraph 5.

1. INTRODUCTION

1.1 The European Community (EC) and its Member States and the other States members of the European Civil Aviation Conference (ECAC) consider the final report of the Group on International Aviation and Climate Change (GIACC) and the subsequent decision adopted by ICAO Council during its 188th session as laying an important foundation for the development of ICAO's strategy to address international aviation's climate change impact. This paper proposes measures that should be taken at ICAO level with regard to certain issues addressed by the HLM in order to demonstrate that international aviation is ready to contribute effectively to the overall reduction of greenhouse gas emissions and thereby confirm ICAO's key role before the United Nations Framework Convention on Climate Change (UNFCCC) COP15 meeting due to take place in December 2009 in Copenhagen. The goals and timelines should be reviewed in the light of the UNFCCC COP15 outcomes.

1.2 Ambitious climate change mitigation targets consistent with limiting the global average temperature increase to not more than 2°C above pre-industrial levels, as agreed by the G8 and Major Economies Forum, need all sectors of the economy to make a contribution, including international aviation which represents a significant and growing source of emissions. Setting binding reduction targets

¹ Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and United Kingdom. All these 27 States are also Members of the ECAC.

² Albania, Armenia, Azerbaijan, Bosnia and Herzegovina, Croatia, Georgia, Iceland, Monaco, Montenegro, Norway, Republic of Moldova, San Marino, Serbia, Switzerland, The former Yugoslav Republic of Macedonia, Turkey and Ukraine.

for international aviation emissions, therefore, forms an important part of this overall strategy. As with the international negotiations on climate change, the need for financial assistance to less developed States with regard to mitigation and adaptation will be an important point for discussion. These issues will be discussed in the broader context of the UNFCCC negotiations. However the HLM is a unique opportunity for ICAO to contribute to this process and to propose what could be considered feasible for international aviation to achieve, and thus to prepare ICAO's submission to COP15. Accepting that a certain level of ambition is indeed possible for aviation should not jeopardize Contracting States' positions in the UNFCCC negotiations where they will have to determine the appropriate binding targets.

2. TIMEFRAMES

2.1 To facilitate the necessary cooperation between ICAO and UNFCCC, the goals adopted should follow the same timelines. On this basis, GIACC recommended 2012, 2020 and 2050 as the appropriate target dates for respectively short-term, medium-term and long-term goals. However, since the timelines for the UNFCCC post-2012 regime are not yet established, it should be acknowledged that there may be a need to adapt ICAO's climate change goals to reflect any other timelines that may be established in the UNFCCC process.

2.2 Goals expressed in terms of greenhouse gas emissions limitation or reduction, require the adoption of a baseline against which to measure cumulative progress. Just as for target dates, any baseline should be consistent with UNFCCC timeframes.

3. APPROPRIATE LEVEL OF AMBITION AND FEASIBILITY OF GOALS

3.1 Short-term goal

3.1.1 GIACC recommended as the short-term goal for the period 2010 to 2012 an annual improvement of 2 per cent in fuel efficiency of the international civil aviation in-service fleet. This goal would represent a cumulative fuel efficiency improvement of more than 13 per cent from a 2005 baseline year. Calculated on the basis of the annual average improvement since 1990, such short-term goal shows the continuation of existing efforts to improve fuel efficiency before any new measures enter into force.

3.2 Medium-term goals

3.2.1 GIACC recommended as the medium-term goal for the period 2013 to 2020 an annual improvement of 2 per cent in fuel efficiency of the international civil aviation in-service fleet. This would represent a cumulative fuel efficiency improvement of about 26 per cent from a 2005 baseline year. The adoption by ICAO of such a fuel efficiency goal would be a first positive step. As underlined in the GIACC Programme of Action, maintaining such fuel efficiency improvement over a long period would require significant additional investments by industry and public authorities in technological and operational development. This goal may be challenging, but it does not encompass the whole mitigation potential of international aviation since it relates exclusively to operational and technological improvements. Such efforts are necessary but not sufficient if ICAO is to deliver an aggressive programme of action on international aviation and climate change as agreed in Appendix K of ICAO Resolution A36-22. Fuel efficiency targets alone would imply that aviation greenhouse gas emissions would continue to grow as demand for air travel is predicted to increase at a higher rate than the 2 per cent increase in overall fuel efficiency. It will be important therefore to establish a goal that goes further than this.

3.2.2 The international aviation industry has provided useful input to GIACC's work and considers various options for medium-term goals both in terms of fuel efficiency and absolute emissions reduction. The International Air Transport Association has adopted a voluntary goal of collectively achieving carbon neutral growth in 2020. Such an industry voluntary goal should be seen as a signpost for ICAO's ongoing vision for 2020 and thus regarded as the lower bound for the definition by ICAO of a global goal.

3.2.3 Despite an anticipated medium to long-term growth in air traffic, the European Union is committed to achieving international aviation carbon neutral growth in Europe already from 2012 under its comprehensive approach to tackle the climate impacts of aviation. This approach includes, through its emissions trading system, a fixed CO₂ emissions cap between 2013 and 2020 set at 95 per cent of 2004-2006 annual average emissions. EEA states comprising Norway, Iceland and Liechtenstein are committed to introducing an emissions trading system similar to that of the 27 EU states. Other countries and regions, in particular the developed States and most advanced developing economies, should equally be in a position to achieve carbon neutral growth on their market before 2020. In this context, it is feasible to reduce international aviation emissions globally below 2005 level by 2020 through a combination of technological, operational and market-based measures. ICAO should therefore support reduction of global international aviation emissions by 2020 below the 2005 baseline used by GIACC.

3.3 Long-term goals

3.3.1 GIACC recommended an aspirational global fuel efficiency improvement rate of 2 per cent per annum from 2021 to 2050. While this constitutes an important first step, it must be recognized that the ability to define a meaningful long-term fuel efficiency target rate, as well as its usefulness, is questionable. Any such target would be based on forecasts that are highly uncertain over such a timeframe.

3.3.2 Europe considers that 2050 goals defined in terms of absolute emission reductions are much more important and relevant in the context of climate change policy. The industry (IATA) has adopted a voluntary goal of collectively reducing its net CO₂ emissions in 2050 by 50 per cent compared to 2005 levels. Such an industry voluntary goal should be regarded as the lower bound for the definition by ICAO of a global goal.

3.3.3 For the credibility of the aviation industry and ICAO it is necessary to set a long-term goal related to the absolute emissions from the sector and not just its relative fuel efficiency. Europe considers that setting a goal for the long-term that compares the share of international aviation emissions as a proportion of the global total would be appropriate. Such a goal will mean that aviation will contribute its fair share of the necessary reduction effort, and could be achieved partially by offsetting aviation emissions against those from other sectors through the use of market based measures, ensuring that the goal is achieved with the lowest abatement cost.

4. CONTRACTING STATES CONTRIBUTIONS TO ACHIEVING GLOBAL GOALS

4.1 Under the approach proposed by GIACC, the global aspirational goals would not attribute specific obligations to individual Contracting States. The different circumstances, respective capabilities and contribution of developed and developing States to the concentration of aviation emissions in the atmosphere should affect how each contributes to the global goals.

4.2 Based on the outcome of UNFCCC COP15, ICAO should work further on fair allocation of efforts among Contracting States to ensure that global goals are achieved. In doing so, ICAO should take into account aspects such as the maturity of aviation markets between Contracting States.

5. ACTION BY THE HLM-ENV

5.1 The HLM-ENV is invited to urge the ICAO Council to:

- a) adopt as target dates for short, medium and long-term goals 2012, 2020 and 2050 respectively and acknowledge that such dates may have to be adapted to reflect the timelines agreed under the UNFCCC international agreement on climate change;
- b) adopt as its short-term goal for the period 2010 to 2012 an annual improvement of 2 per cent in fuel efficiency of the international civil aviation in-service fleet;
- c) support the reduction of global international aviation emissions by 2020 below the 2005 baseline used by GIACC;
- d) in addition to adopt as a secondary medium-term global goal for the period 2013 to 2020 an annual improvement of 2 per cent in fuel efficiency of the international civil aviation in-service fleet representing the contribution of technological and operational measures;
- e) support a long-term goal of reduction of absolute global international aviation emissions consistent with the 2°C target and not just relative fuel efficiency; and
- f) work further on fair allocation of efforts among Contracting States, on the basis of the outcome of UNFCCC COP15, to ensure that global goals are achieved, taking into account aspects such as the maturity of aviation markets and the competitive distortions or carbon leakage.

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