



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

GIACC PROGRAM OF ACTION AND BEYOND

(Presented by Australia)

SUMMARY

The Program of Action developed by GIACC is a positive step forward, but the international aviation sector will need to do more if it is going to make a credible contribution towards reducing its share of global greenhouse gas emissions. Specific emissions reduction goals are needed to set the sector on the path to carbon neutral growth, followed by a net reduction in carbon emissions for the sector over time.

Market-based measures will be an essential element of achieving the goals, and resolution of an agreed framework to support the introduction of appropriate market-based measures is a priority.

It is critical that the goals for international aviation and the consideration of how market-based measures might apply to international aviation are coordinated with broader work on the climate change program through the UNFCCC. Member States are encouraged to push for urgent and coordinated action through both the UNFCCC and ICAO.

Within the ICAO context, a mechanism should be established to respond promptly to the outcomes of UNFCCC COP-15 and progress these issues in advance of the 2010 Assembly.

Action by the HLM-ENV is in paragraph 7.

1. INTRODUCTION

1.1 The Program of Action recommended by Group on International Aviation and Climate Change (GIACC) is a significant step forward and the Australian Government supports the directions

indicated by GIACC and the Council's decision of 30 June 2009 (C-DEC 187/14) to accept fully the Program of Action. GIACC was able to achieve consensus on some key elements of a strategy for addressing international aviation's contribution to climate change. Australia is appreciative of the invitation by the President of the Council which allowed an Australian representative to take an active part in the GIACC process.

1.2 The Australian Government believes, however, that the Program of Action is only a starting point. More can and should be done. ICAO Member States and the Council need to look further than implementation of the Program of Action and pursue ways to build on that Program. While Australia supports the Program of Action, it falls well short of providing a robust and comprehensive strategy for a responsible contribution by the international aviation sector to the real reductions in global greenhouse gas emissions that must be achieved to limit climate change impacts.

2. INTERNATIONAL AVIATION AND CLIMATE CHANGE

2.1 Climate change is a global challenge. There is broad agreement that the increase in global average temperature above pre-industrial levels should not exceed 2°C. As a global objective, the world needs to set a path to stabilise greenhouse gas emissions concentrations at 450ppm CO₂-e or less. Achieving this objective in practice means that global emissions need to peak as soon as possible and decline thereafter.

2.2 Every sector, including international aviation with its significantly growing share of greenhouse gas emissions, must play its full and fair part. The political drive toward strong global action on climate change is growing, and the international aviation sector must respond accordingly with ambitious action to reduce net emissions from the sector.

2.3 Demand for air travel is expected to increase as the global economy recovers from the current financial crisis. Since alternative fuels are not a viable option for use in aviation in the short to medium term, reduction in the associated growth in international aviation emissions will primarily be through ongoing efficiency gains from aircraft design and operational improvements. These measures are unlikely to offset the projected growth in air traffic and the carbon footprint of international aviation.

2.4 The two per cent year-on-year fuel efficiency aspirational goal embodied in the GIACC Program of Action is below the projected growth in global aviation emissions. Acceptance of this goal as the international aviation sector's ultimate aim would essentially be an acceptance of ongoing growth in emissions from international aviation. This runs counter to the global objective of reducing emissions.

2.5 In the absence of revolutionary breakthroughs in aircraft design or the development of commercial-scale supply of low carbon fuels, efficiency gains will be incremental. Commercial incentive has already driven the aviation industry to maximise efficiency gains. Unless demand for air travel is constrained, market-based measures offer the only clear alternative to achieve the necessary emission reductions.

3. AUSTRALIAN GOVERNMENT ACTION

3.1 The Australian Government is committed to decisive action on climate change to reduce greenhouse gas emissions.

3.2 Australia has committed to reduce emissions by up to 25 per cent from 2000 levels by 2020 in the context of a global agreement capable of delivering 450ppm or lower. The reductions will be achieved through the Carbon Pollution Reduction Scheme (CPRS) – an economy-wide cap and trade scheme, which will also include domestic aviation. The Australian Government is determined for the Bill underpinning the CPRS to be passed by the end of the year. Legislation is already in place for the mandatory reporting of energy consumption and greenhouse gas emissions above a specified threshold.

3.3 The Australian Parliament passed separate legislation in August 2009 that will see 20 per cent of Australia's electricity supply coming from renewable energy sources.

4. COORDINATION OF UNFCCC AND ICAO ACTIONS

4.1 In the absence of a clear shared commitment to address international aviation emissions through ICAO, Australia has proposed that the United Nations Framework Convention on Climate Change (UNFCCC) set an indicative global emission reduction goal for the international aviation sector and that a new global agreement should be negotiated under the UNFCCC. The expectation is that ICAO would maintain a strong role in implementation of the goal, but that the establishment of the goal and a framework agreement coordinated with the broader UNFCCC climate change program would clear the way for ICAO to make progress.

4.2 The scheduled meeting of the ICAO Assembly in late 2010 provides a further opportunity to consider measures to enhance and build on the Program of Action. It is important that the period between COP-15 in December 2009 and the 2010 Assembly is used to best effect. The Council may wish to consider, as a matter of urgency, establishing a process to review the outcomes of COP-15 and plan how actions arising might be expedited in the period leading to the 2010 Assembly.

5. GOALS FOR INTERNATIONAL AVIATION

5.1 Action to reduce emissions from the international aviation sector need to be seen as part of the broader action on climate change and in the context of the pressing need to achieve absolute reductions in overall emissions without delay. There is a strong argument that, if international aviation is to do its part, the net carbon trajectory for the international aviation sector should be in line with the trajectories set for overall reductions.

5.2 In the absence of agreed global carbon trajectories, the following possible goals are suggested for the international aviation sector:

- a) Carbon neutral growth during the medium term (2012-2020) using 2005 as the base year; and
- b) Significant net carbon reductions over the long term (2020-2050).

5.3 The International Air Transport Association (IATA) has already voluntarily announced targets of carbon neutral growth from 2020 and a 50 per cent reduction in CO₂ emissions by 2050 relative to 2005 levels. In the context of public expectations, it would seem unrealistic for ICAO to adopt goals that are less ambitious than those which the industry itself is willing to accept.

6. MARKET-BASED MEASURES

6.1 Ongoing efficiency gains from the introduction of new aircraft and further operational and air traffic management measures will have some impact on reducing emissions from international aviation. The reductions, however, are unlikely to outweigh the increases from expected growth in aircraft movements. The absolute carbon footprint of international aviation is therefore likely to continue to grow.

6.2 Current research into the use of biofuels for aviation shows promising results, but there are serious doubts about the timeframes within which such fuels might be widely available for up-take in the commercial volumes and price necessary to make a substantial impact on emissions. Similarly, there are no breakthrough technologies in engine or aircraft design that would produce a radical change in aviation emissions in the short to medium term.

6.3 In this context, an absolute cap on aviation emissions would inevitably involve a limit on the levels of aviation activity. A cap expressed in net terms however would not limit growth in aviation activity, particularly if emissions credits could be obtained from other sectors. Under an open market-based approach, the emissions savings required could be met from sectors where they can be achieved most economically and the international aviation sector would purchase credits to offset its emissions.

6.4 Market-based measures would allow international aviation to contribute fairly to broader emissions reduction goals without limiting the growth of international air traffic and the flow-on economic benefits. Under a market-based approach, carbon neutral growth could be achieved in the short term. Market-based measures could be a useful transitional measure pending the development of technology solutions or the widespread introduction of low carbon fuels.

6.5 Agreement on the role of market-based measures in the pursuit of net carbon reductions for international aviation could open up access for international aviation to the flexibility mechanisms available under the UNFCCC.

6.6 The use of market-based measures to address aviation greenhouse gas emissions has been a contentious issue in ICAO. Member States should work together to put in place arrangements that ensure that such measures can be applied effectively, without distorting the international aviation market. The arrangements need to be coordinated with the broader work affecting carbon markets and mechanisms through the UNFCCC.

7. ACTION BY THE HIGH-LEVEL MEETING

7.1 The HLM-ENV is invited to consider:

- a) ways to move beyond implementation of the Program of Action to work on more ambitious goals for addressing emissions from international aviation;
- b) recognizing the need for the use of market-based measures in achieving emissions reduction goals for international aviation; and
- c) establishing a process to take prompt action to respond to the outcomes of COP-15 and present an enhanced proposal to the 2010 Assembly.