



THE AUSTRALIAN REPRESENTATIVE
ON THE COUNCIL OF THE
INTERNATIONAL CIVIL AVIATION ORGANIZATION

Our Reference: AN 6/5

22 December 2009

Mr. Raymond Benjamin
Secretary General
International Civil Aviation Organization
Montreal, Quebec
CANADA

Dear Mr. Benjamin

Collection of Information on voluntary activity for greenhouse gas (GHG) reduction/mitigation in the aviation sector (Ref: AN 1/17-09/93)

I refer to the Secretary-General's letter of 2 December, 2009 (AN 1/17-09/93) on the above subject.

Australia's comments are set out in the attached questionnaire.

Yours sincerely

PETER EVANS

ATTACHMENT to State letter AN 1/17-09/093

**QUESTIONNAIRE CONCERNING VOLUNTARY ACTIVITY FOR GHG
REDUCTION/MITIGATION IN THE AVIATION SECTOR**

A copy of the questionnaire, in Microsoft Word format, has been posted on the Internet at <http://www.icao.int/icao/en/env/measures.htm>.

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Q1. Name of the voluntary activity.

Asia and Pacific Initiative to Reduce Emissions (ASPIRE)

Q2. Type¹ of the voluntary activity.

- Unilateral commitment Public voluntary scheme Negotiated agreement
 Other (Please describe the activity in the box below.)

Other. ASPIRE is a voluntary agreement between the air navigation service providers of Australia, Japan, United States and New Zealand to work closely together to reduce aircraft fuel burn and carbon dioxide emissions through efficiency improvements on key Asian and Pacific routes.

Q3. Please mark all the participants² of the activity.

- Airline Airline association Manufacturer Manufacturer association
 Airport authority Air traffic control Government Other (Please specify in the box below.)

Airlines, air traffic control, airport authorities and governments.

¹The features of each type of voluntary activity are as follows.

- Unilateral Commitment: The environmental improvement plan established by the participant itself, and declared to the stakeholders, such as employees, stockholders, consumers, etc. Target and measures to environmental improvement are established by the participant itself.
 - Public Voluntary Scheme: The scheme which the participant agrees voluntarily with the standard on environmental improvement target, technology, management, etc. established by public organization such as Ministry for Environment.
 - Negotiated Agreement: Contract based on negotiation between public organization (national government/local government) and industries. Both parties can independently decide whether to agree to the contract.
- ² If you marked "Public voluntary scheme" on Q2, the public organization which establishes the standard is included in the participants. If you marked "Negotiated agreement" on Q2, the public organization which agrees to the contract is included in the participants.

Q4. Is the voluntary activity accompanied by a side agreement³?

Yes (Proceed to Q4-1.) No (Proceed to Q5.) Yes

Q4-1. If the voluntary activity is accompanied by side agreement, please describe the parties and outline the side agreement.

Current partners are Airservices Australia, Airways New Zealand, Japan Civil Aviation Bureau and the United States Federal Aviation Administration (The Civil Aviation Authority of Singapore is expected to join on the 2nd of February 2010.)

ASPIRE is an agreement, signed in February 2008, under which partners pledge to adopt and promote best practices that have demonstrated and proven success in the reduction of greenhouse gases, as well as to the development of work programs to promote future gains for the environment.

Q5. Please answer the following questions concerning the coverage of the voluntary activity:

Q5-1. Select all green house gases (GHGs) which are part of the voluntary activity.

Carbon dioxide (CO₂) Methane (CH₄) Nitrous oxide (N₂O)
 Hydrofluorocarbons (HFCs) Perfluorocarbons (PFCs)
 Sulphur hexafluoride (SF₆) Nitric oxide & Nitrogen dioxide (NO_x) Water vapor (H₂O) Other (Please specify in the next box.)

All GHGs from aircraft operations with main focus on CO₂.

Q5-2. Please select all operations⁴ which are part of the voluntary activity.

International passenger flight Domestic passenger flight
 International cargo flight Domestic cargo flight Other (Please specify in the next box.)

International passenger and international cargo flights.

Q6. Please answer the following questions concerning the index to measure the effect of the voluntary activity.

³ "Side agreement" is the agreement between the participant of the activity and a third party. For example, the agreement between an airline and an engine manufacturer, which prescribes that the manufacturer assist the airline to attain its target by introducing new emission-reducing technologies, is considered as a side agreement. For more information, please refer to Part II Paragraph 6.5.2 on "Template and Guidance on Voluntary Measures", released on ICAO CAEP website (http://www.icao.int/icao/en/env/Caep_Template.pdf).

⁴ In case that the voluntary activity describes its coverage from the other viewpoint than listed above, such as "operation under IFR", "operation of aircraft larger than specific weight", etc. and that aim of the activity is not linked to operation directly, for example introduction of new technology which contributes reduction/mitigation of GHGs, please mark "other" and please describe feature.

Q6-1. Select the index used to measure the effect of the voluntary activity.

- Absolute quantity of GHG emissions⁵ (Please outline the index in the box below.)
- Unit of GHG emissions⁶ (Please outline the index in the box below.)
- Introduction of specific technology
- Introduction of specific procedure Other (Please specify in the box below.)

Absolute quantity of GHG emissions reduction on specific flights.

Q6-2. Please outline the procedure to acquire data to calculate or describe the index of Q6-1.

A series of trans-Pacific test flights has been undertaken for which absolute fuel savings have been specifically measured. In addition to the test flights the group has commenced data modelling directly with the participating airlines. The data collection will form the bases for proposed emissions targets.

Q7. Please answer the following questions concerning the target of the voluntary activity.

Q7-1. Is the target of the voluntary activity clearly defined?

- Yes (Proceed to Q7-2.) No (Proceed to Q8.) No

Q7-2. Please describe the target of the voluntary activity, including substance of the target, target year, base year.

There is no set target as such but a general objective to maximise fuel and emissions reductions on long range flights across the Pacific.

⁵ The example of the unit is Ton-CO₂, Ton-C, m³-CO₂, etc.

⁶ The example of the unit is g-CO₂/RPK(Revenue Passenger Kilometer), g-CO₂/ASK(Available Seat Kilometer), g-CO₂/RTK(Revenue Ton Kilometer), g-CO₂/ATK (Available Ton Kilometer), etc.

Q8. Please list the measures to attain the target or to reduce/mitigate GHGs.

Range of air traffic management procedures including:

- . Surface Movement and Runway Monitoring
- . Departure Management and En-Route/Oceanic Transition
- . User Preferred Routes (UPRs)
- . Dynamic Airborne Reroute Procedures (DARP)
- . Oceanic Separation Reductions
- . Reduced Vertical Separation Minima (RSVM)
- . Flexible Track Systems
- . Arrivals Management - Time-based arrivals management
- . Continuous Descent Arrivals (CDA) - including Tailored Arrivals; RNAV and RNP-AR approaches
- . Performance Based Navigation (PBN) Implementation

Q9. Please answer the following questions concerning periodic review of the voluntary activity.

Q9-1. Is the progress of the voluntary activity reviewed periodically?

- Yes (Proceed to Q9-2.) No (Proceed to Q10.) Yes

Q9-2. Please describe the frequency of the periodic review.

Ongoing process of exploring opportunities for more efficient procedures.

Q9-3. Is a third party's opinion considered/to be considered in the periodic review?

- Yes (Proceed to Q9-4.) No (Proceed to Q10.) All stakeholders' opinions are considered.

Q9-4. Please outline the third party opinion.

No examples at this time.

Q10. Please answer the following questions concerning legislative obligation.

Q10-1. Is there any legislative obligation on attainment of the target?

- Yes (Proceed to Q10-2.) No (Proceed to Q11.) No

Q10-2. Please describe legislative obligation, including measures taken in case that the participant of the voluntary activity fails to attain the target.

No legislative obligation involved.

Q11. Please answer the following questions concerning disclosure of information⁷ on the voluntary activity:

Q11-1. Is the name of the participant of the voluntary activity disclosed to the public?

Yes No Yes

Q11-2. Is the target of the voluntary activity disclosed to the public? (If you marked "no" at Q7-1, the answer to this question shall be "not applicable".)

Yes No Not applicable Not applicable

Q11-3. Are the measures taken/to be taken by the participant of the voluntary activity to attain the target/reduce or mitigate GHGs disclosed to the public?

Yes No Yes

Q11-4. Is the result of each periodic review disclosed/to be disclosed to the public? (If you marked "no" at Q9-1, the answer to this question shall be "not applicable".)

Yes No Not applicable Yes

Q11-5. Is the effect of the voluntary activity disclosed/to be disclosed to the public?

Yes No Yes

Q12. Please answer the following questions concerning effect of the voluntary activity:

Q12-1. Is third party's opinion considered/to be considered when examining the effect of the voluntary activity?

Yes (Proceed to Q12-2.) No (Proceed to Q12-3.) No

⁷ Item(s) to which the answer is/are "no" from Q11-1 to Q11-5, are considered but this information will not be included in the final report.

Q12-2. Please outline the third party opinion.

Not applicable

Q12-3. How much of GHGs amount emitted per year, in CO₂ weight equivalent are reduced or mitigated/expected to be reduced or mitigated by the voluntary activity?

Potential annual saving of over 37 million litres of fuel and more than 100,000 tonnes of CO₂ emissions if all flights between Australia, New Zealand, the United States and Canada were operated under ASPIRE conditions.

Q13. Please provide the website address for the voluntary activity, if any, in the box below.

www.aspire-green.com

Q14. Please describe additional information, if any.

ASPIRE's goals are to:

- . accelerate the development and implementation of operational procedures to reduce aviation's environmental footprint for all phases of flight on an operation by operation basis, from gate to gate;
- . facilitate world-wide interoperability of environmentally friendly procedures and standards;
- . capitalise on existing technology and best practices;
- . develop shared performance metrics to measure improvements in the environmental performance of the air transportation system;
- . provide a systematic approach to ensure appropriate mitigation actions with short, medium and long-term results;
- . communicate and publicise ASPIRE environmental initiatives, goals, progress and performance to the global aviation community, the media and the general public.