



International Civil Aviation Organization

**The Twenty-Second Meeting of the APANPIRG ATM/AIS/SAR Sub-Group  
(ATM/AIS/SAR/SG/22)**

Bangkok, Thailand, 25 – 29 June 2012

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**Agenda Item 3: Regional Performance Framework and Metrics**

**STATE ENVIRONMENTAL ACTION PLANS**

(Presented by the Secretariat)

**SUMMARY**

This paper provides a summary of current ICAO activities related to initiatives to assist States in the preparation of action plans on CO<sub>2</sub> emissions reduction activities.

This paper relates to –

**Strategic Objectives:**

*C: Environmental Protection and Sustainable Development of Air Transport –  
Foster harmonized and economically viable development of international civil  
aviation that does not unduly harm the environment*

**Global Plan Initiatives:**

- GPI-1 Flexible use of airspace
- GPI-2 Reduced vertical separation minima
- GPI-5 RNAV and RNP (Performance-based navigation)
- GPI-6 Air traffic flow management
- GPI-7 Dynamic and flexible ATS route management
- GPI-10 Terminal area design and management
- GPI-11 RNP and RNAV SIDs and STARs
- GPI-13 Aerodrome design and management
- GPI-14 Runway operations

**1. INTRODUCTION**

1.1 Air transport is a vital element of the global economy that is responsible for the safe and efficient transportation of more than 2.7 billion passengers in 2011. While the current contribution of aviation to total global anthropogenic CO<sub>2</sub> emissions is approximately 2 per cent<sup>1</sup>(of which 62 per cent are from international aviation), the forecasted traffic growth raises questions on the future contribution of international aviation to climate change and on the most effective way to address CO<sub>2</sub> emissions from the sector. This paper provides a summary of current ICAO activities related to initiatives to assist States in the preparation of action plans on CO<sub>2</sub> emissions reduction activities.

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<sup>1</sup> Intergovernmental Panel on Climate Change, “Climate Change 2007: Synthesis Report,” 2007.  
<http://www.ipcc.ch/ipccreports/ar4-syr.htm>

## 2. DISCUSSION

### Assembly Resolution A37-19

2.1 In October 2010, the 37th Session of the ICAO Assembly adopted Resolution A37-19 on international aviation and climate change. The Resolution includes global aspirational goals for international aviation of improving 2% annual fuel efficiency up to 2050 and stabilizing its CO<sub>2</sub> emissions at 2020 levels.

2.2 The Resolution encourages States to submit their action plans outlining their respective policies and actions, and annual reporting on international aviation CO<sub>2</sub> emissions to ICAO.

2.3 The Resolution also invites those States that choose to prepare their action plan to submit their plan to ICAO as soon as possible preferably by the end of June 2012 in order that ICAO can compile the information in relation to achieving the global aspirational goals. The action plans should include information on the basket of measures considered by States, reflecting their respective national capacities and circumstances, and information on any specific assistance needs.

### Action Plans

2.4 Compiling an action plan will help States identify gaps in their existing programmes and fine-tune their strategies as they specify the basket of measures they will employ to contribute to the achievement of the global aspirational goals. As a tool, it will allow States to ensure that relevant stakeholders are aware of the planned actions, respective roles and expectations that apply to them.

2.5 The submission of States' action plans to ICAO is expected to facilitate the consolidation of information related to the achievement of the collective global aspirational goals for the international aviation sector. Receiving the action plans will also assist ICAO in identifying and responding to States' needs for technical and financial assistance to implement such actions. The importance of the action plans is demonstrated not only by the relevant provisions of Resolution A37-19, but is further highlighted by the responses from individual States.

2.6 ICAO developed, in collaboration with an ad hoc Committee on Aviation Environmental Protection (CAEP) expert group composed of States and stakeholders, the document *Guidance Material for the Preparation of States' Action Plans* to guide States, step-by-step, through the process of preparing and submitting an action plan. A dedicated interactive web-interface was also developed to facilitate the submission of States' action plans to ICAO. The CAEP Steering Group meeting in September 2011 endorsed the guidance material and recommended the use of this website by States to submit their action plans to ICAO.

2.7 The basket of measures selected by States may include some combination of aircraft-related technologies, operational improvements, market-based measures and sustainable alternative fuels. The ICAO Fuel Savings Estimation Tool (IFSET) announced in State Letter AN 13/61-12/4, is freely available on the ICAO public website<sup>1</sup> and has been specifically developed to be used by States to quantify the expected results from the implementation of operational improvements.

2.8 In addition, in order to provide practical assistance to States in their preparation of action plans on CO<sub>2</sub> emissions reduction activities, ICAO held six hands-on training workshops in 2011 in Mexico City, Mexico, Bangkok, Thailand, Dubai, UAE, Nairobi, Kenya, Paris, France and Montreal, Canada. Over the course of these six workshops, ICAO trained national focal points from over 80 States. After each workshop, the guidance document *Guidance Material for the Preparation of States' Action Plans* was refined, incorporating comments from national focal points.

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<sup>1</sup> <http://www.icao.int/environmental-protection/Pages/Tools.aspx>

2.9 The workshops provided participants – State Action Plan national focal points – with information to enable them to develop their State’s action plan on CO<sub>2</sub> emissions reduction activities. The national focal points are responsible to develop their States’ action plans and submit them to ICAO.

2.10 With a view to encouraging the highest rate of submission of States’ action plan, and following the successful hands-on training workshops, the ICAO Secretariat will continue to provide States with the assistance and tools to support them in the preparation and submission of their action plans on CO<sub>2</sub> emissions reduction activities. In this regard, the Air Transport Bureau (ATB) is also working with the Technical Cooperation Bureau (TCB) to provide adequate support to States.

#### ICAO Fuel Savings Estimation Tool (IFSET)

2.11 The ICAO Fuel Savings Estimation Tool (IFSET) has been developed by the Secretariat with support from States and international organizations to assist States in estimating and reporting fuel savings in a manner consistent with the models approved by CAEP and aligned with the Global Air Navigation Plan. This 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 those States without such facilities to estimate the benefits from operational improvements in a consistent manner.

2.12 As part of the roll-out activities and in coordination with the Civil Air Navigation Services Organization (CANSO) ICAO held two dedicated workshops in the APAC Region (Singapore and Maldives) to assist States on the use and application of IFSET. An overview and a practical exercise were also provided to the participants of the Aviation System Block Upgrades workshop recently held in Bangkok.

2.13 So far, the response from States from APAC region has been unsatisfactory. It should be reminded that the estimation and reporting of environmental benefits accrued from operational improvements is an opportunity for the States and International Organizations to show their good and valuable participation in the global effort to reduce impact of aviation on climate change, as directed by several Assembly Resolutions.

### **3. ACTION BY THE MEETING**

3.1 The meeting is invited to:

- a) bring to the attention of the ICAO Secretariat specific areas where additional guidance on environmental benefits would be valuable;
- b) collaborate with their State Action Plan national focal points for all the operational measures that States wish to develop, implement and/or include in their action plans;
- c) promote the use of the ICAO IFSET tool for the quantification of environmental benefits from operational measures, as part of the development of States’ action plans;
- d) report the estimated environmental benefits accrued from planned or implemented operational improvements using IFSET or any other more advanced tool as requested by APANPIRG;
- e) coordinate with all the stakeholders in the development of their action plans; and
- f) inform their State Action Plan national focal points of the availability of further assistance, to be provided by the ICAO Secretariat, related to the preparation and submission of States’ action plans.

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