



ICAO

ENVIRONMENT



# Recent developments in ICAO

Jane Hupe

Deputy Director, Environment

ICAO Air Transport Bureau



## Key Elements of ICAO Assembly Resolution A38-18

1. Collective **global aspirational goals** for the international aviation sector of improving 2 % fuel efficiency per year and keeping net CO<sub>2</sub> emissions from 2020 at the same levels;
2. further work to explore the feasibility of **a long-term global aspirational goal** for international aviation;
3. development of a global **CO<sub>2</sub> certification Standard for aircraft**, aiming for adoption by the ICAO Council in 2016;
4. implementation of **operational improvements** and further development and update of tools and guidance to assess environmental benefits;



## Key Elements of ICAO Assembly Resolution A38-18

5. further facilitation of developing and deploying **sustainable alternative fuels for aviation**, including consideration of methodologies to account for life-cycle CO<sub>2</sub> benefits and projection of future production
6. **development of a global MBM scheme** for international aviation, which addresses key design elements, including a means to take into account the special circumstances and respective capabilities of States, in particular developing States, as well as the implementation mechanisms from 2020, for decision by the 39th Assembly in 2016;



## Key Elements of ICAO Assembly Resolution A38-18

7. voluntary preparation and update of **States' action plans** on CO<sub>2</sub> emissions reduction activities, for submission to ICAO by June 2015, and to be publically available; and
8. enhancement of ICAO strategy for **capacity building and assistance**, including support for development and update of States' action plans, as well as the mechanisms to facilitate access to financial resources.



- Aircraft-related technology development
- Alternative Fuels
- Improved air traffic management and infrastructure use
- More efficient operations
- Market-based measures (MBMs)
- Regulatory measures
- Airport improvements



- The aircraft CO<sub>2</sub> Standard will result in a new Annex 16 Vol. III
- Two phases in the approach:
  - Phase 1 (completed)
    - Development of CO<sub>2</sub> Certification Requirement (metric system, procedures);
  - Phase 2 (ongoing)
    - CO<sub>2</sub> Standard setting process (stringency levels, technology responses, cost effectiveness assessments and interdependencies).



CO<sub>2</sub> certification requirements agreed by CAEP/9 in February 2013 and published as Circular 337 for information.



## FLIGHTPATH TO A SUSTAINABLE FUTURE

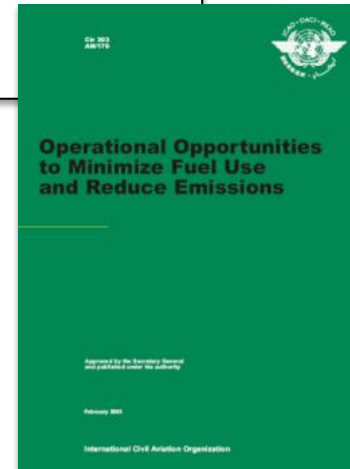
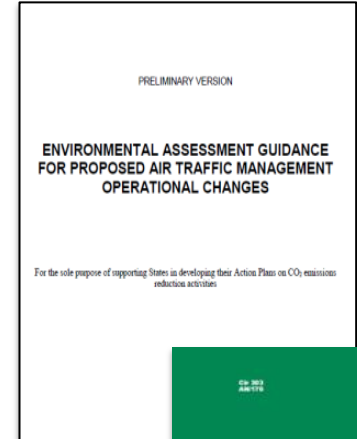
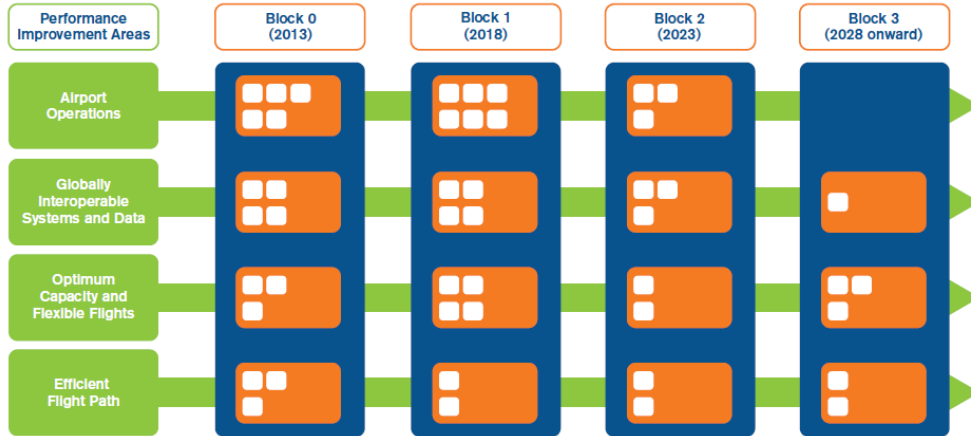
ICAO's Rio+20 Global Initiative



- One of the most exciting and promising opportunities for reducing aviation CO<sub>2</sub> emissions, while improving local air quality
- Airlines are using sustainable drop-in biofuels from different feedstocks that do not require changes to aircraft or fuel delivery infrastructure
- Technological aspects are proved to be viable
- **The 38<sup>th</sup> Assembly requested:**
  - Development of coordinated national policy actions to accelerate the appropriate development, deployment, and use of sustainable alternative fuels for aviation with measures to ensure the sustainability of the fuels.



- Improved air traffic management and infrastructure use



- More efficient operations
- The 38th Assembly requested the continued development of tools and guidance to assess the benefits of:
  - ATM improvements and;
  - assess the environmental benefits associated with the ASBUs strategy.





- MBMs aim to contribute to the achievement of environmental goals, at a lower cost, and in a more flexible manner, than traditional command and control regulatory measures
- At the 38<sup>th</sup> Assembly it was decided to develop a global MBM scheme for international aviation, taking into account:
  - Finalization of the work on the technical aspects, environmental and economic impacts and modalities of the possible options for a global MBM scheme
  - The organization of seminars, workshops on the global scheme
  - The identification of major issues and make recommendations that appropriately addresses them, including the means to take into account the special circumstances and respective capabilities of States





### Carbon Emissions Calculator

to calculate the carbon dioxide emissions from air travel for use in offset programmes



### Green Meetings Calculator

to support decision-making in reducing the carbon emissions from air travel to attend meetings



### Fuel Savings Estimation Tool (IFSET)

to assist the States to estimate fuel savings from operational improvements in a manner consistent with the models approved by CAEP and aligned with the Global Air Navigation Plan



Additionally available as  
Apple and Android  
applications

### The 38<sup>th</sup> Assembly:

- Noted the ICAO strategy for capacity building to assist the preparation of States' action plans, including the development of an interactive web-interface and IFSET;
- Requested the continued development and dissemination of best practices and tools that will help harmonize the implementation of carbon offset programmes.



## States' Action Plans to reduce aviation CO<sub>2</sub> emissions

- **For States**

Opportunity to identify and communicate measures to address CO<sub>2</sub> emissions from international aviation as well as any assistance needs to implement the measures



- **For ICAO**

Assess the global progress towards the achievement of aspirational goals and address specific assistance needs of States.

**Concrete action to address CO<sub>2</sub> emissions**



## States' Action Plans – ICAO Capacity Building Programme

- **Guidance Document for the Development of States' Action Plans (ICAO Doc 9988)**
- **ICAO Interactive Web-Interface**
- **Hands-on Training seminars in all ICAO Regions**
- **Over 200 Teleconferences and Meetings with States' Focal Points**
- **Support provided by ICAO Regional Offices and Technical Cooperation Bureau**



## Current status of Action Plans submitted

**77 States, representing around 83% international RTK,  
submitted an Action Plan as of March 2015**



- 77 States submitted an Action Plan
- Remaining States

Data obtained from Economic Analysis and Policy Section ([EAP](#))  
Annual Report 2009



# Tentative Plan for “Assistance and Capacity Building seminars for Action Plan and Assistance to States” 2014 and 2015 and ENV Meetings

1 to 4 April  
2014

- NACC, Mexico, Mexico

7 to 11 April  
2014

- SAM, Lima, Peru

10 to 13 June  
2014

- WACAF, Yaoundé, Cameroon

16 to 19 June  
2014

- ESAF, Nairobi, Kenya

28 – 30  
October 2014

- APAC, Kuala Lumpur, Malaysia

10 to 12  
March 2015

- MID, Dubai, UAE

18 -20 March  
2015

- EUR-NAT, Poland

Fall 2015

- Montreal, ICAO HQ

## Other meetings

9 to 10  
Sept. 2014

- ICAO HQ Seminar Green Technologies

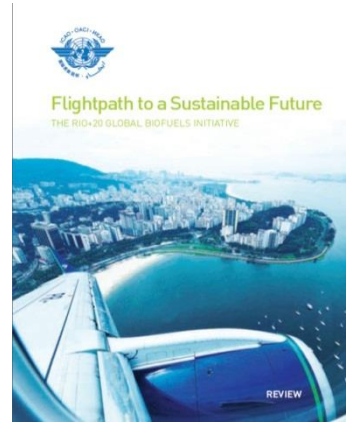
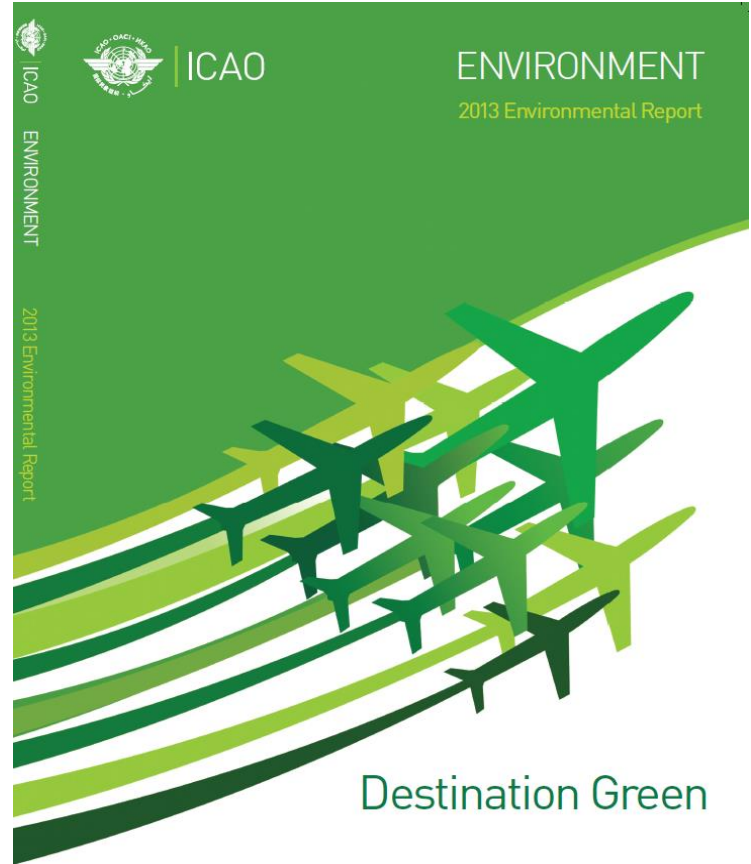
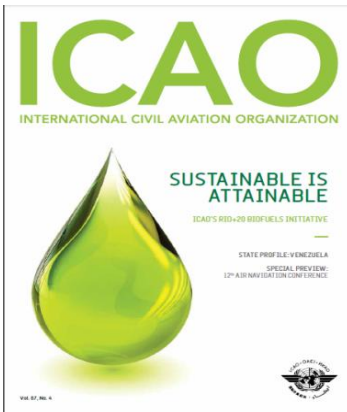
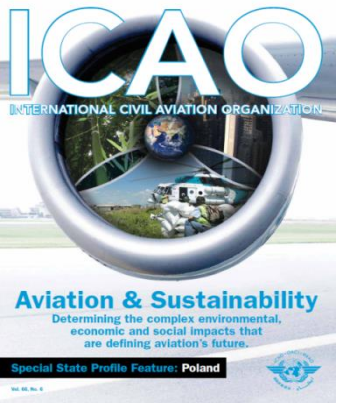
2015

- ICAO HQ ENV Seminar





# Additional information



For more information on our activities, please visit ICAO' website: <http://www.icao.int/env>

