



ICAO

ENVIRONMENT



Recent developments in ICAO

Jane Hupe, Chief,
Environment Branch,
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 CO₂ 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 **CO₂ 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 CO₂ 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 CO₂ 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 CO₂ Standard will result in a new Annex 16 Vol. III
- Two phases in the approach:
 - Phase 1 (completed)
 - Development of CO₂ Certification Requirement (metric system, procedures);
 - Phase 2 (ongoing)
 - CO₂ Standard setting process (stringency levels, technology responses, cost effectiveness assessments and interdependencies).



CO₂ certification requirements agreed by CAEP/9 in February 2013 and published as Circular 337 for information.



FLIGHTPATH TO A SUSTAINABLE FUTURE

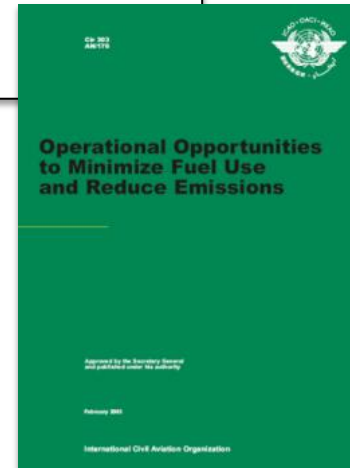
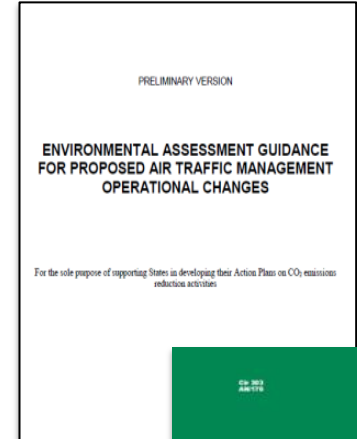
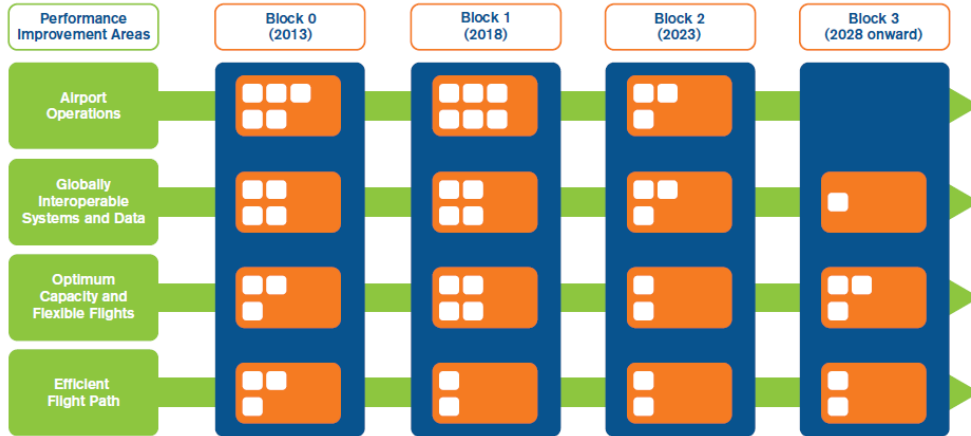
ICAO's Rio+20 Global Initiative



- One of the most exciting and promising opportunities for reducing aviation CO₂ 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 38th 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 38th 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



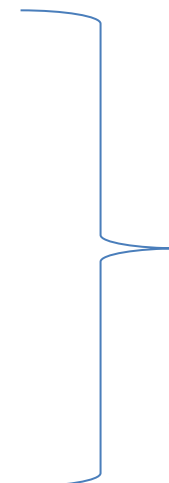
Green Meetings Calculator

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 38th 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 CO₂ emissions

- **For States**

Opportunity to identify and communicate measures to address CO₂ 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 CO₂ emissions



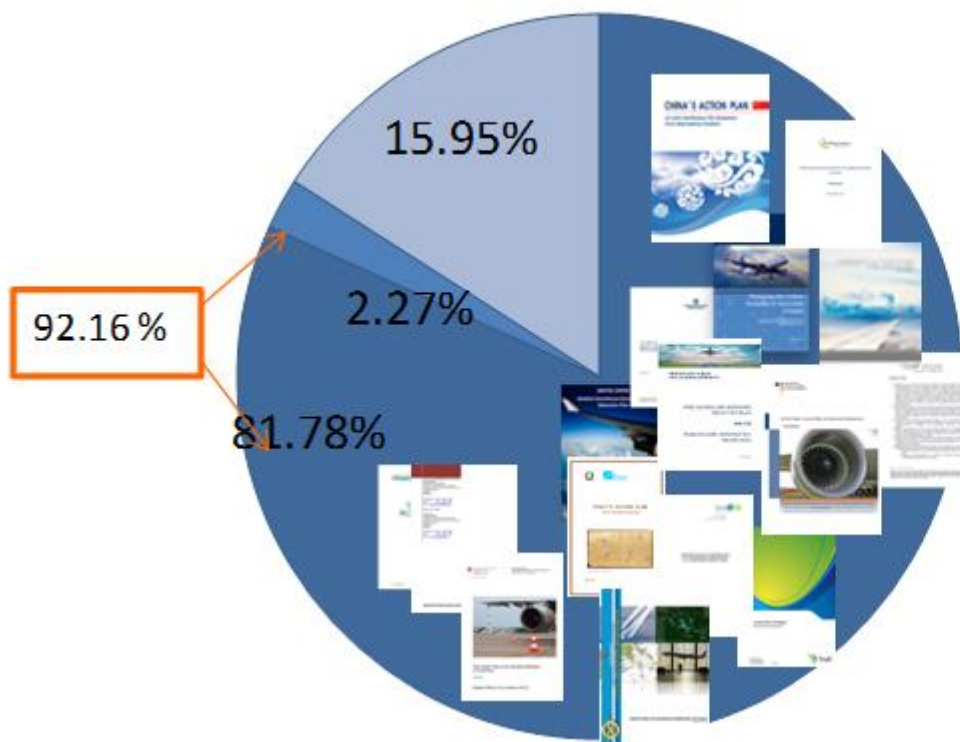
States' Action Plans – ICAO Capacity Building Programme

- **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

**73 States, representing around 82% international RTK ,
submitted a first action plan as of March 2014**



- 73 States submitted an Action Plan
- 9 States plan to submit an Action Plan in 2014
- Remaining States



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

November
2014

- APAC, Kuala Lumpur, Malaysia

Jan. – Feb.
2015

- MID, Dubai, UAE

Spring
2015

- EUR-NAT, Poland

Fall 2015

- Montreal, ICAO HQ

Other meetings

9 to 10
Sept. 2014

- ICAO HQ ENV Seminar

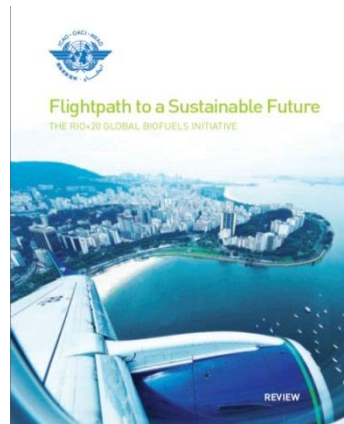
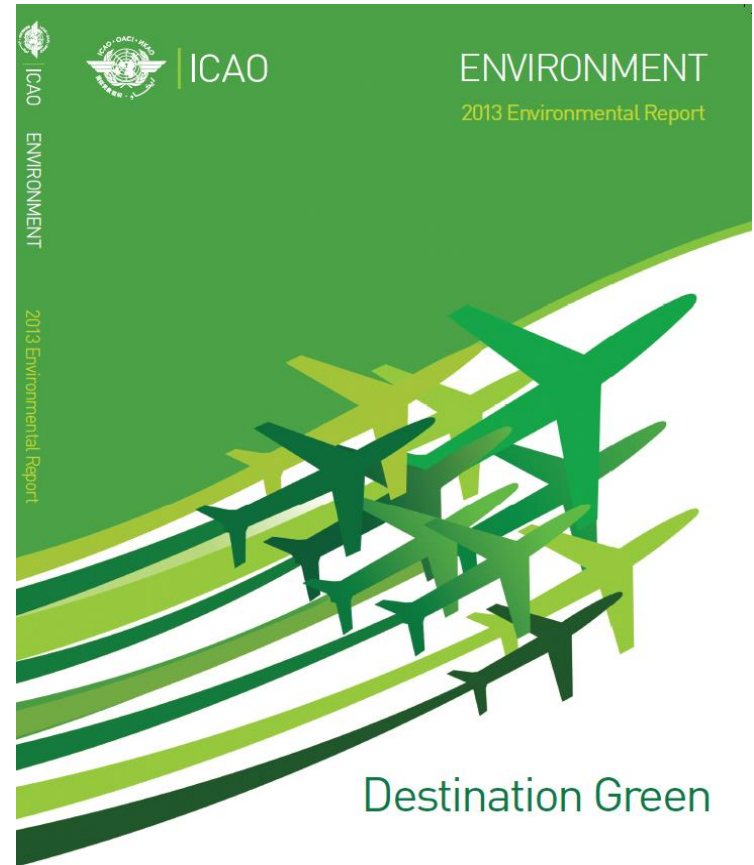
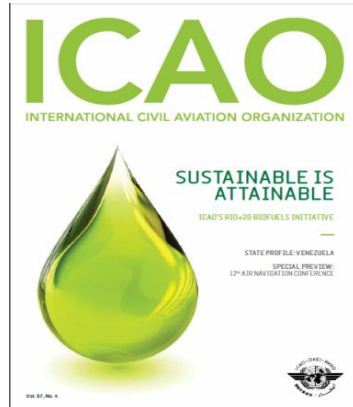
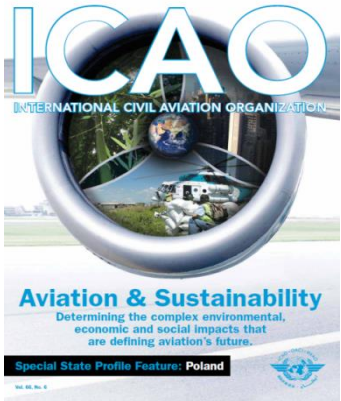
2015

- ICAO HQ ENV Seminar





Additional information



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

