Setting the Scene

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International Civil Aviation Organization (ICAO)

UN specialized agency

Established by the “Chicago Convention” in 1944

Forum for cooperation in all fields of civil aviation

191 Contracting States

Standards, policies & guidance for environment since 1960’s

Focus on aircraft noise, local air quality and global climate
Minimize the adverse effect of global civil aviation on the environment
ICAO Policies on Environment

• **A38-17**: Consolidated statement of continuing ICAO policies and practices related to environmental protection – General provisions, noise and local air quality

• **A38-18**: Consolidated statement of continuing ICAO policies and practices related to environmental protection – Climate change
ICAO SARPs (Standards And Recommended Practices) and Guidance

ICAO SARPs
- **Annex 16 – Volume I**, Aircraft Noise
- **Annex 16 – Volume II**, Aircraft Engine Emissions
- **Annex 16 – Volume III**, Aircraft CO2 Emissions (under development)

ICAO Guidance (examples)
- **NOISE** – Guidance on the Balanced Approach to Aircraft Noise Management (Doc 9829)
- **EMISSIONS** – Airport Air Quality Manual (Doc 9889)
ICAO Committee on Aviation Environmental Protection (CAEP)

- **Established** by the ICAO Council in **1983**, superseding the Committee on Aircraft Noise (CAN) and the Committee on Aircraft Engine Emissions (CAEE)
- **Assists** the **ICAO Council** in formulating new policies and adopting new SARPs for aircraft noise and aircraft engine emissions
- CAEP is a **technical committee and reports to the ICAO Council**

Fuelling Aviation with Green Technology, ICAO HQ, Montreal, Canada, 9 and 10 September 2014
## CAEP Members and Observers

### 23 Members (23 States)
- Argentina
- Australia
- Brazil
- Canada
- China
- Egypt
- France
- Germany
- India
- Italy
- Japan
- Netherlands
- Poland
- Russian Federation
- Singapore
- South Africa
- Spain
- Sweden
- Switzerland
- Tunisia
- United Kingdom
- Ukraine
- United States

### 15 Observers (5 States and 10 Organizations)
- Greece
- Indonesia
- Norway
- Turkey
- United Arab Emirates
- ACAC
- ACI
- CANSO
- EU
- IATA
- IBAC
- ICCAIA
- ICSA
- IFALPA
- UNFCCC

**Around 600 specialized experts involved**
Basket of Measures to reduce aviation emissions

- Aircraft-related technology development
- Improved air traffic management and infrastructure use
- More efficient operations
- Market-based measures (MBMs)
- Sustainable alternative Fuels
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.

*Communication Tool between ICAO and its Member States*
States’ Action Plans – ICAO Capacity Building Programme

- Guidance Document for the Development of States’ Action Plans (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
74 States, representing around 82% international RTK, submitted a first action plan as of June 2014.
ICAO’s Assistance Partnerships

ICAO UNDP (with GEF financing)

To provide assistance to Developing Countries and Small Islands States resulting in the reduction of CO2 emissions

ICAO-EC

To provide assistance to Selected States in African and Caribbean resulting in the reduction of CO2 emissions
Partnerships and Initiatives on Sustainable Alternative Fuels for aviation

Global Framework for Aviation Alternative Fuels (GFAAF)
http://www.icao.int/environmental-protection/GFAAF
Why this ICAO “Fuelling Aviation with Green Technology” Seminar?

A vision for the future.

• Improved understanding and analysis capabilities of current and future aircraft technologies permit continued improvement in aircraft designs.

• New objectives and future constraints may require unconventional configurations.

• Exploiting new technologies can change the rules of the game, leading to very different solutions – Transformational changes.

• Progress requires unprecedented imagination, innovation and communication among aircraft designers, scientists, computational and other specialists outside the aviation sector.
Session I – Aircraft Technology
Session II – Aircraft End-of-Life
Session III – Green Aircraft Operations
Session IV – Eco-airports
Session V – Renewable Energy for Aviation
Session VI – Sustainable Alternative Fuels
Session VII – Financing and Assistance
The best way to predict the future is to create it.