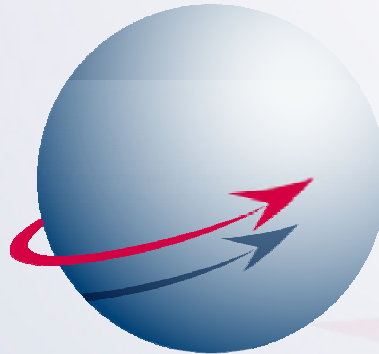




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**GLOBAL**

ICAO: UNITING AVIATION ON CLIMATE CHANGE

# ICAO Colloquium on Aviation and Climate Change



**canso**

civil air navigation services organisation

## ATM Operational Improvements



ICAO Headquarters, Montréal, Canada, 11- 14 May 2010



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# ICAO Colloquium on Aviation and Climate Change





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## CANSO Environment Workgroup

- Code of conduct
- Agreed Measures
- Best Practice

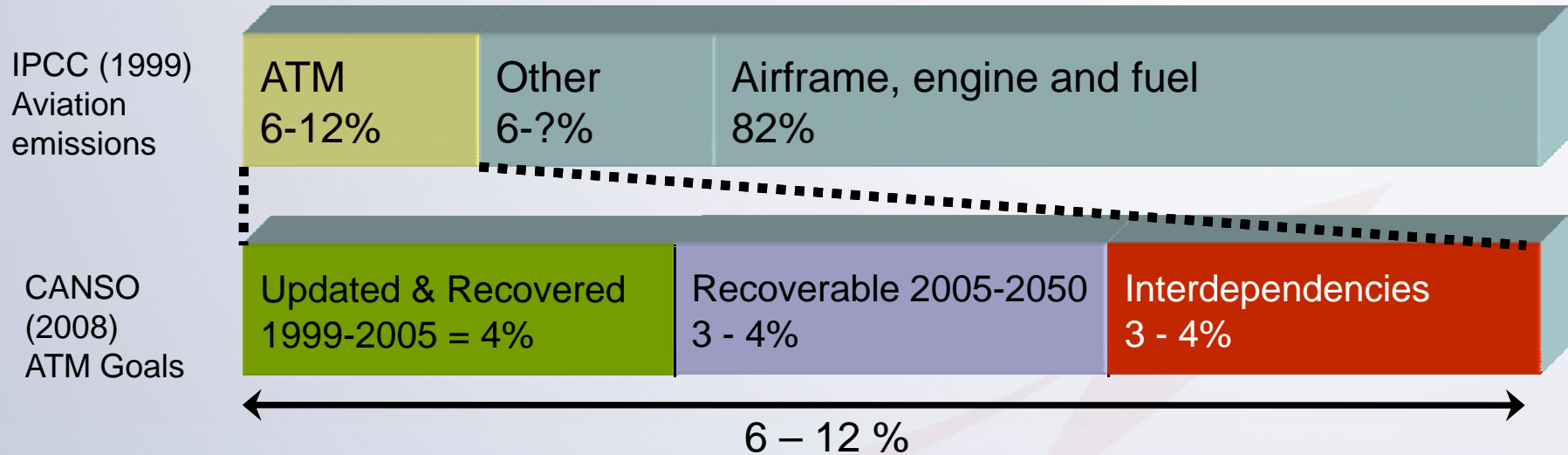
## CANSO Operations Standing Committee

- Ops Directors working together
- Coordination airspace reform





# CANSO ATM Efficiency Goals



- 4% efficiency achieved since 1999
- 4% still to be achieved



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## ICAO Colloquium on Aviation and Climate Change

- A global sectoral approach for a global issue
- ICAO plays a leading role in managing the emissions from aviation
- Industry's commitments
  - 1.5% improvement per year in average in terms of fuel efficiency
  - Carbon-neutral growth from 2020
  - Absolute reduction of net CO<sub>2</sub> emissions by 50% in 2050, compared to 2005 levels.



ICAO Headquarters, Montréal, Canada, 11- 14 May 2010



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## **TRANSPIRE**

### **ON GROUND**

- Pre-Departure Tactical Management
- Collaborative Decision Making
- Surface Movement Optimisation

### **DEPARTURE, CLIMB**

- Required Navigation Performance Procedures
- Unrestricted Climb Departure Procedures
- Strategic Deconfliction of Departure Routes
- Green Departures with DMAN

### **ENROUTE CRUISE**

- Flexible Use of Airspace (civil/military)
- Flex Tracks Routes
- User Preferred Routes
- ATM Long-range Optimal Flow Tool

### **DESCENT**

- Tailored Arrivals
- Continuous Descent Approach
- Point Merge



STRATEGIC PLANNING

CUSTOMER CONSULTATION

CUSTOMER FEEDBACK

CONSOLIDATED BENEFITS





# CANSO COMMITMENT

- Metrics and measures
- Identify ATM effect on environment
- Political will for change





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## CANSO MEMBERS

- Delivering reduced Fuel Burn
- Long term Change
- Unite → Deliver → Sustain

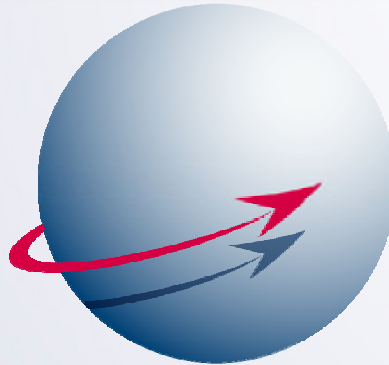






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## The Global Voice of ATM

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