



Image selected from the ICAO drawing contest. Children and dependants of ICAO employees were invited to submit drawings on the theme of Aviation in a Green Environment.

ICAO PRE-COLLOQUIUM TUTORIAL — PROGRAMME Tuesday, 11 May 2010

Registration times :

MONDAY, 10 May 1500 – 1700, **TUESDAY**, 11 May 0800 – 1000 and 1400 – 1700,
WEDNESDAY, 12 May 0800 – 1000

Please note that the pre-Colloquium tutorial is available free of charge and is only accessible to participants of the Colloquium.

The tutorial preceding the Environmental Colloquium will provide a broad overview of aviation greenhouse gas emissions (GHG) to familiarize participants with the vocabulary and concepts used in the description, measurement, regulation, and management of aviation GHG emissions.

Presented by **Michael A. Kenney**, Director KB Environmental Sciences. Inc.

09:00 – 10:30

SESSION ONE — AIRCRAFT EMISSIONS AND THEIR IMPACT ON CLIMATE

With the emphasis on aviation, this session will provide the participants with a working knowledge of GHGs, how they are formed, and their importance to the environment.

A. Important terms and concepts, including:

- ▶ Adaptation
- ▶ Carbon cycle
- ▶ Carbon footprint
- ▶ Climate change
- ▶ Greenhouse effect / Global warming
- ▶ Greenhouse gases
- ▶ Lifecycle impacts
- ▶ Sustainability

Revised,
10 May 2010

ICAO PRE-COLLOQUIUM TUTORIAL — PROGRAMME

Tuesday, 11 May 2010 (continued)

09:00 – 10:30 **SESSION ONE (continued)**

B. GHG molecules — What are they and how are they transformed from well-to-wake

- ▶ Fundamentals of fuel combustion
- ▶ Greenhouse warming potential

C. Aviation sources of GHGs

- ▶ Aircraft
- ▶ Stationary sources
- ▶ GSE/APU
- ▶ Electricity
- ▶ Surface vehicles

10:30 – 11:00 **COFFEE BREAK**

11:00 – 13:00 **SESSION TWO — GHG DATA COLLECTION:
MEASURING, REPORTING AND VERIFYING**

THE ASSESSMENT

This session will provide participants with an understanding of how aviation-related GHGs are calculated and their overall importance to the climate change issue.

A. Interactive participant review of Session One

B. GHG metrics, measurement methods and trends

- ▶ Worldwide and aviation's contribution
- ▶ Intergovernmental Panel on Climate Change (IPCC)

ICAO COLLOQUIUM ON AVIATION AND CLIMATE CHANGE

TUTORIAL — PROGRAMME Tuesday, 11 May 2010 (continued)

11:00 – 13:00

SESSION TWO (continued)

Co-presented by Ted Thrasher,
ICAO Environmental Officer

C. Emission quantification methods

- ▶ GHG emissions inventories
- ▶ Guidelines and protocols
- ▶ Ownership, boundaries and scopes
- ▶ Direct and indirect emissions

- ▶ Data sources
- ▶ Time periods
- ▶ Uncertainties
- ▶ Aviation inventories
ICAO Carbon Calculator

D. Reporting venues and criteria

- ▶ International
- ▶ National
- ▶ Voluntary

13:00 – 14:00

LUNCH BREAK

14:00 – 15:30

SESSION THREE — MITIGATION MEASURES FOR AVIATION EMISSIONS

THE REDUCTIONS

This session will provide participants with a practical overview of technological, design, planning and other alternative measures for reducing aviation's carbon footprint.

A. Aircraft emission reduction measures

- ▶ Operational strategies
- ▶ Aircraft design
- ▶ Alternative fuels

B. Other aviation-related sources

(GSE, APUs, surface vehicles, stationary sources, electrical use)

C. Credits and offsets

15:30 – 16:00

COFFEE BREAK

ICAO PRE-COLLOQUIUM TUTORIAL — PROGRAMME

Tuesday, 11 May 2010 (continued)

16:00 – 17:00

SESSION FOUR — POLICY AND OBJECTIVES

Presented by **Ted Thrasher**, ICAO Environmental Officer

THE GUIDING PRINCIPLES

This session will introduce the participants to the current and future goals for managing and reducing aviation-related GHGs.

A. International Policy

- ▶ UNFCCC and Kyoto Protocol
- ▶ Main Challenges for ICAO

B. ICAO Programme of Action

- ▶ Global Goals
- ▶ Mitigation Measures
- ▶ Progress Monitoring

C. COP15 and beyond