



## What Can ANSPs Do?

- Support airline customers
- Implement operational improvements to reduce fuel burn and CO<sub>2</sub> emissions



# **Benefit from ATM Operational Solutions**

#### **Phase of Aircraft Operation**

**Departure** Source Ground Movement <u>o</u>f Taxi times **ATM Efficiency improvements** CDM/CEM

Off stand time vs. rwy slot time

Sequencing tools

#### **Departure TMA**

Departure procedures

P-RNAV routes

Clear climbs

Track distance

Strategic deconfliction of departure routes

#### **En Route**

Point to point/great circle routes/most efficient route

Optimum climb/descent profile Optimum cruise levels

En-route speed control for orderly arrival in TMA (reduce holding)

Sequencing tools

Flex use of airspace

#### **Arrival TMA**

Holding Sequencing tools

CDA, LP/LD

Glideslope angles

Parallel CDAs Differential glide path angles

Rwy allocation for min. taxi times

**Arrival** Ground **Movement** 

Taxi times

CDM/CEM

Stand nonavailability Contingency

Sequencing tools

Benefit in 2006: US\$ 662 Million fuel savings & 6 Million tons of CO2 emissions

### **CANSO 2010 Deliverables**

- ATM has a role to play
- Environment is lead issue for CANSO
- By 2010 CANSO will deliver:
  - Global Environmental Benchmarks and Metrics
  - Targets for reductions in emissions & noise
  - Material to broaden understanding of ATM's impact
  - Practical Guide to Environmental Management Systems

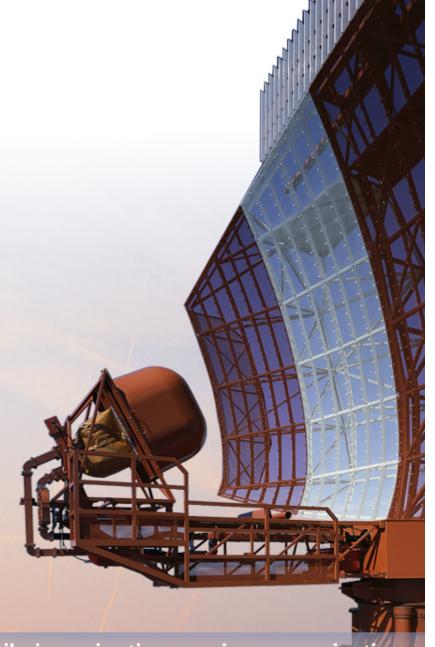


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THE GLOBAL VOICE OF ATM