Status on SESAR

ICAO Colloquium on Aviation and Climate Change
May 13th, 2010
Environment is a priority for SESAR

- Enabling EU skies to handle 3 times more traffic
- Improving safety by a factor of 10
- CO2 emission per flight -10%
- Reduce ATM unit costs by 50%
SESAR Joint Undertaking fully established

Main responsibilities:
- Concentrate and integrate R&D in Europe
- Execution of the European ATM Master Plan

Budget: € 2.1 billion for R&D activities secured and formalized
From the programme launch in June 2009 up to now

- **July**
  - 400 contributors

- **September**
  - Airspace Users on board

- **November**
  - First projects plans evaluated
  - 130 projects launched

- **December**
  - 1200 Contributors
  - 200 projects launched

- **May 2010**
  - 1500 Contributors
  - First deliverables received
The SESAR “factory” is in place

- 75% of the programme initiated

**VALIDATION INFRASTRUCTURE WP3**

**MASTER PLAN MAINTENANCE WP C**

**CONOPS & ARCHITECTURE WP B**

**Network WP 7&13**

**En-Route WP 4&10**

**Aircraft & CNS WP 9&15**

**SWIM WP 8&14**

**Airport WP 6&12**

**Airlines/Mil. Operations Centers WP 11**

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**METHODES & CASES WP 16**

**TMA WP5&10**

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The SESAR “factory” is in place

- 16 members and over 70 companies on board

Founding members:
- DGAC
- NATMIG
- THALES
- EUROCONTROL
- Aena
- AIRBUS
- Alenia Aeronautica
- DFS Deutsche Flugsicherung
- ENAV S.p.A.
- FREQUENTIS
- Honeywell
- Indra
- NATS
- noracon
- SEAC
- SELEX Sistemi Integrati
The SESAR “factory” is in place

Specific working arrangements established with:

- Civil Airspace users
- Military
- Regulatory authorities
- Standardisation bodies
- Staff representatives
- Clean Sky Joint Undertaking

Will be formalized within short:

- Research organizations/academia
- FAA/NextGen

- More than 300 projects in total
- Average project:
  - Duration 4 years
  - Budget 7M€
  - Dependencies with 5 other projects
How we work together

ILLUSTRATIVE
How we work together

STEP 3
Performance Based Operations

STEP 2
Trajectory Based Operations

STEP 1
Time Based Operations

3 Maturity Targets for the Programme

Initial Operational Capability

Building the environmental case

Environmental validation methodology

Performance

Env. Cases

Airspace Users view
Importance of international cooperation and interoperability through standards

Standards built on SESAR and NextGen developments will support harmonised Implementation and Regulation

Programme level coordination enhanced by interoperability and wider industry buy-in through standards bodies.

EC/FAA Coordination
Partnership in practice, delivering green results today

- 1152 trials performed
- Demonstrated CO₂ saving/flight ranging from 90 to 1250 kg
- Accumulated savings during trials equivalent to 400 Tons of CO₂
- First complete transatlantic green flights performed
- Most of the solutions are already in operation or will be introduced within short
- Programme will be expanded in 2010
To summarize

- Ambitious environmental targets defined for 2020 horizon
- European ATM Master Plan defines roadmap for the step by step evolution of the future ATM System
- Funding and governance to conduct R&D activities is in place
- AIRE demonstrates that green results can be achieved today
- Public-Private partnership and international cooperation is a key success factor for the programme
Thank you for your attention!

www.sesarju.eu/environment