# THE NEED FOR INT'L COOPERATION

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#### Air Traffic Flow Chart 2030



#### THE FACTS

- Significant efforts by States to meet compliance with ICAO SARPs
- ► Traffic growth:
  - critical in specific regions
- Sustainable growth is at risk
  - ▶ Bottlenecks
- Cooperation is needed
  - ► Neighbouring countries
  - Regional arrangements

#### ASECNA

- ▶ Mission: "ensuring safety in air navigation"
- Established in 1959 (revised in 2010)
- Common services:
  - ► En route air navigation
  - Organization of airspace and routes
  - Aeronautical information
  - Meteorology

#### COCESNA

- ▶ Mission: "to provide safe and efficient air navigation services"
- ► Established in 1960
- ► Common servises:
  - ► Air navigation services
  - Safety oversight agency
  - ▶ Training institute

#### EUROCONTROL

- ▶ Mission: "achive safe and seamless ATM across Europe"
- Established in 1960 (revised 1996)
- Common services:
  - ► En route ATM
  - ▶ Route charges
  - Air Traffic Flow Management
  - Program management (ATM master plan)
  - ▶ R&D
  - ▶ Training institute

#### WHY COOPERATION

- ► Resources required: financial, technological, human
- Traffic growth may create bottle necks and ultimatly inefficiencies
- Regional dimension of the challenge

#### THREE MAIN REASONS

- Sustainable growth of aviation
- No country left behind
- CO2 emmissions, operations in the basket of measures

## THE NEED FOR A COOPERATION ARRANGEMENT

- Cooperation as result of a crisis: CFMU
- Cooperation as means to anticipate crisis:
  - Network manager
  - ▶ Route charges
  - Performance review mechanisms
  - ► ASECNA, COCESNA

### AREAS OF POTENTIAL REGIONAL DIMENSION

- Flow and capacity management
- Route Charges
- Regional Air Navigation Plan implementation
- Safety Oversight
- Aeronautical information data bank
- ► SAR
- Accident Investigation
- Surveillance: ADS-B
- Comm
- ► ATM
- Training

#### THE SCALE OF ENGAGEMENT

- Support / assistance programs (ad-hoc)
- Bilateral / multilateral programs (ad-hoc)
- MOU / MOC sharing information and resources
- Common mechanisms / coordination
- Common institutions / organizations
- Common regulation
- Common law

#### COOPERATION STEPS

- 1st step: sharing information
  - Radar data
  - ▶ Flight plan data
  - Other operational data
- ▶ 2nd step: sharing services
  - ► SAR
  - Calibration
  - Accident investigation
  - Safety oversight

### COOPERATION STEPS (cont.)

- ▶ 3rd step: common ATM facilities and operations
  - ► EUROCONTROL
  - ▶ ASECNA
  - ▶ COCESNA

## SUSTAINABILITY of a COOPERATION ARRANGEMENT

- Addressing the Need (present or future)
- Autonomous operation
- Institutional foundation, solid governance
- Sound finantial scheme, business case
- Capable workforce

#### THE CHALLENGE

- What kind and level of regional arrangements?
  - Mechanisms
  - ► Tools
  - Institutions
- ▶ What is the evolving role of the ICAO Regional Offices?



#### THE EUROPEAN CASE

- Many States
- Small airspaces
- Requirements from civil and military
- Dense population, nearby capitals, close main hubs
- ► Continous growth of traffic

#### THE EUROPEAN PREVIOUS CONTEXT

- Capacity of airspace and airports to the limit
- Multiplicity of regulations
  - Operations
  - Airworthiness
  - ▶ Licenses
- Aviation could have become a hándicap to economic growth

#### EUROPEAN PAST ARRANGEMENTS

► Aircraft operations: JAA developing JARS

► Air navigation: EUROCONTROL

► ATM Master Plan

**▶** EATCHIP

► RVSM

### EUROPEAN INSTITUTIONAL EVOLUTION

- ▶ The EU
  - European Council
  - ▶ European Parliament
  - ▶ European Commission
    - ▶ Easa (2003)
- ► EUROCONTROL (1960)
  - Centralised services
- ► EC + EUROCONTROL : Single European Sky

#### **EVOLUTION**

- From coordination of flow operations
- ▶ To a continental Network Manager
  - Centralised operation center
  - Flow and capacity management
  - ► Flight planning operations
  - Information management
  - Crisis & contingency management
  - Post operatios analysis

#### GLOBAL MECHANISMS ?

- Towards a single global sky
- ► ADS-B satellite based
- Aeronautical Information data bank?
- ▶ Global ATFM?

A transparent and efficient airspace will require global mechanisms and regional arrangements