ICAO CAPACITY & EFFICIENCY

GANIS/2 Outcomes – Civil-Military cooperation

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Modernization of the Air Navigation System

- **Systemic** change (SWIM, TBO, FF-ICE..)
- 1 radio, 1 transponder and 1 landline **not sufficient** anymore
- Risk to see **cooperation decrease** → ↓ Air Nav System Performance
- Military are willing/interested to work together

Challenges

- New Mil Aircraft and Technology
  - **Increasing** Airspace needs
- Military aircraft world **fleet** growing +/- 1.5 %/Yr
- **Interoperability**

Civil-military cooperation enablers

- Collaboration
- Interoperability
- SWIM & Cyber
- 4D Trajectory

Collaboration

- At all levels
  - ICAO to deal with global level
- Military voicing their needs
- Systemic considerations
  - Long term, from the outset, at conceptual level

Interoperability

- Goes beyond ATM
- CNS
- Operational/Technical/Conceptual (SWIM…)

Interoperability

- Performance Equivalence
- Dual use of CNS
- GND-GND & AIR GND
- Conceptual interoperability from the outset

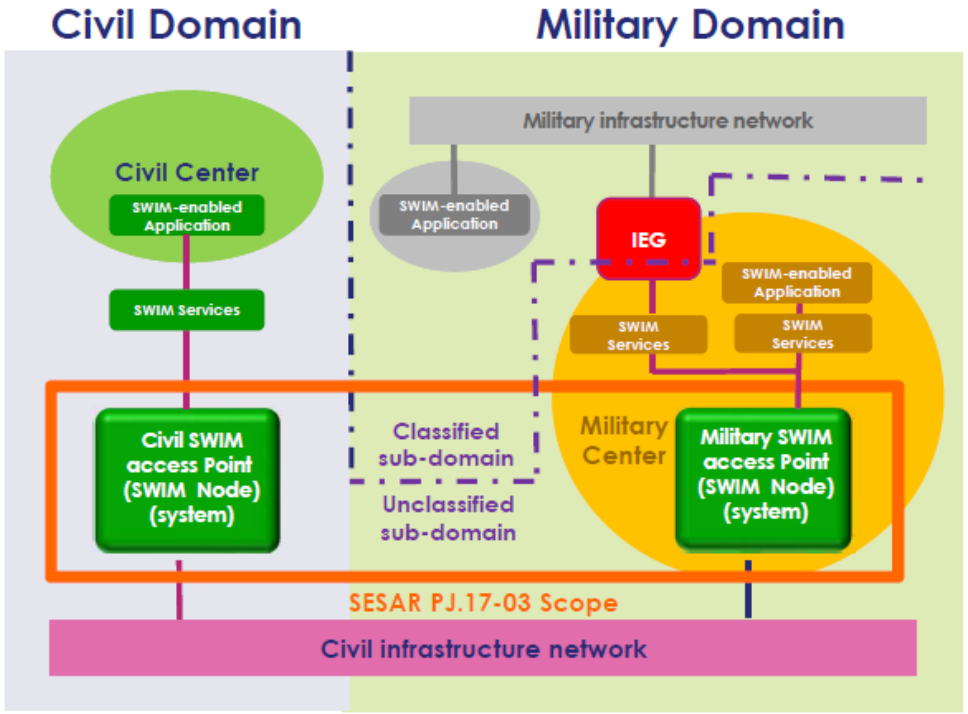
Performance Equivalence

- State prerogative to certify own State aircraft
- Process for Mil to meet Civil requirements with own capabilities
- Supported by performance-based standards

SWIM & Cyber

- The future ATM is based on information
- Exchange between Civ & Mil will increase (a lot)
- System must be cyber resilient
- Threats to cooperation if Mil are not part of it
- Military : not only users, but partners
  - Single SWIM governance including the Military dimension
- Critical for future system performance

SWIM & Cyber



SESAR PJ.17-03 Project Leader: Thales

4D Mission Trajectory

- Mission effectiveness
  - Better accommodation of Mil flights
  - Flexible, Reactive, special procedure, Confidentiality
- Safety
  - Deconfliction in planning, quality information
- Capacity
  - Predictability → better planning for Civ Route network

→Military Airspace Users' integration in the overall ATM Network

Conclusions

- Collaboration in addition to Cooperation and Coordination
  - From the outset (R&D, Concepts, GANP, synchronization at global level)
- Interoperability
  - Key enabler
- Military dimension
  - Acknowledgement
- Crucial & important topic
  - Cannot work in isolation → Airspace is a single continuum
- Win-win
  - Mil usage of Civ route network/less segregation: optimum for all
- In the respect of both requirements → Balance
  - Protect their national security and defence capabilities
  - enable Civil aviation cost efficient operations

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THANK YOU!