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 \( \rightarrow \) ↓ 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
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