

S3JU Presentation

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Initial EPP applications

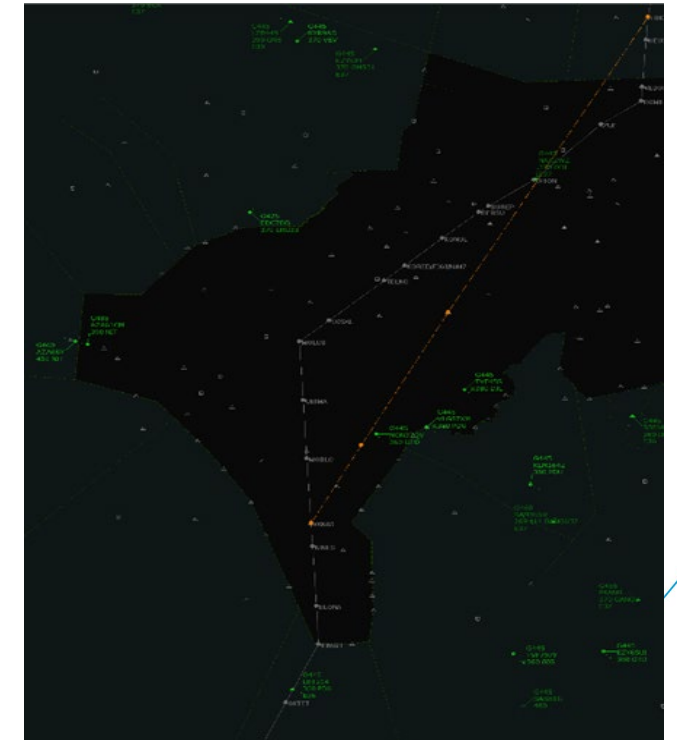


EPP

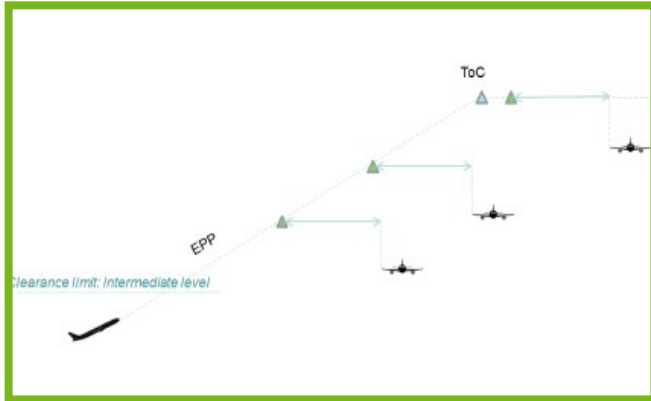


SESAR initial trajectory information sharing

- Comparison of FMS 3D trajectory with ground trajectory (SESAR solution 115) — CP1 mandate
(Implementation ongoing, more info later)
- Vertical profile improvement thanks to visibility of FMS Top-of-descent (TOD) by ATC:
 - Early descent is a key cause for inefficient descent
 - Potential for improvement studied by PJ31
 - Work ongoing in SESAR PJ38 (2021-2023)

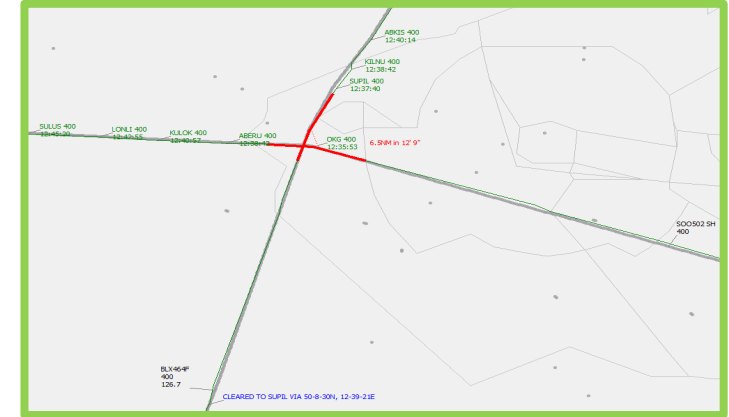
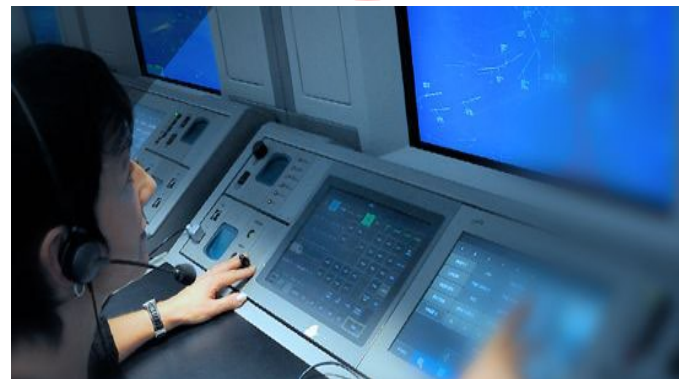


Advanced ATS B2 applications under development in SESAR



Enhanced vertical clearances

- EPP provides ground with desired vertical profile
- Ground uses this intelligence to compose vertical clearance avoiding intermediate level-offs
- ATN B2 clearance via CPDLC to be auto-loaded to the FMS
- Expected to dramatically improve efficiency of vertical profiles



Uplink 2D trajectory revision

- Substitutes vector + resume own navigation
- Message composed by the ground system
- New 2D route autloaded to the FMS

Accelerating the uptake of innovation in A/G communications

Digitalisation



↑↑↑ A/G
data traffic

- Airborne gateways → Ground gateways (ground multilink)
- Principle of **backwards compatibility**
- Innovation uptake through **forward fit (as in CP1 regulation)**
- **Coexistence of different A/G DL communication technologies:**
 - VDL2 OSI and IPS
 - AEROMACS
 - SATCOM CLASS A (IPS) & CLASS B (OSI)
 - Future terrestrial datalink (LDACS) – TRL 6 in 2023
 - Includes NAV and SUR solutions (iCNS principles)
 - Includes new VHF-like **digital voice**
- *VHF voice (ground and satellite-based)*

