OPERATIONAL DATA LINK
IMPLEMENTATION

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DATA LINK

- Provides DCPC in Remote airspace
  - Allows more efficient procedures
  - 30/30 (soon to be 23nm Long) in South Pacific
  - Reduced Crew workload, increased accuracy of comms

- FANS1A + ADS-C has been in use since early 90’s (25years!)

DATA LINK

Reduces RT congestion

- EUR VDL

- Pre departure Clearance delivery
  - Airline equipage/useage can be an issue (eg India)

Implementation

- Operational concept must be defined before implementation
  - Service delivery outcomes defined and Delivered!
- Trial and Study + good strategy
- Education and communication (CDM)
- Regional co-ordination
  - Harmonized traffic flow (s)

Lessons Learnt – Europe case study

- VDL Mode 2 Mandated – benefits NOT delivered
- Ground did not equip
- Not enough Frequency spectrum allocated
  - Estimate Minimum 4 required for high density airspace
  - Therefore all avionics and ground stations must be multi Frequency

Lessons Learnt – Europe case study

- "Severe" failures of CPDLC
  - Loss of confidence in (both ATC and Pilots)
  - Mandate dates suspended (now 2018 Ground, 2020 air)
  - Airline concern ground will AGAIN not be ready

- Airlines looking at compensation options with EC

Lessons Learnt – Europe case study

- Airlines invested USD126m (17 airlines surveyed)
- Actual aircraft equipped 3800
  - Based on survey = USD450m
- Survey revealed actual cost of retro fit USD145,000 per aircraft
  - 2 to 3 times higher than original business case estimates!

Summary

- Define Operational concept
- Define and implement service delivery outcomes
- DON'T implement data link "just to have Data link"
- Conduct thorough Operational Trials and address issues prior to going live

Summary

- COMMUNICATE; EDUCATE ; COMMUNICATE
- Collaborative development and implementation
- Make sure the Ground and the Air are aligned
- Review and measure performance

THANK YOU