



ICAO

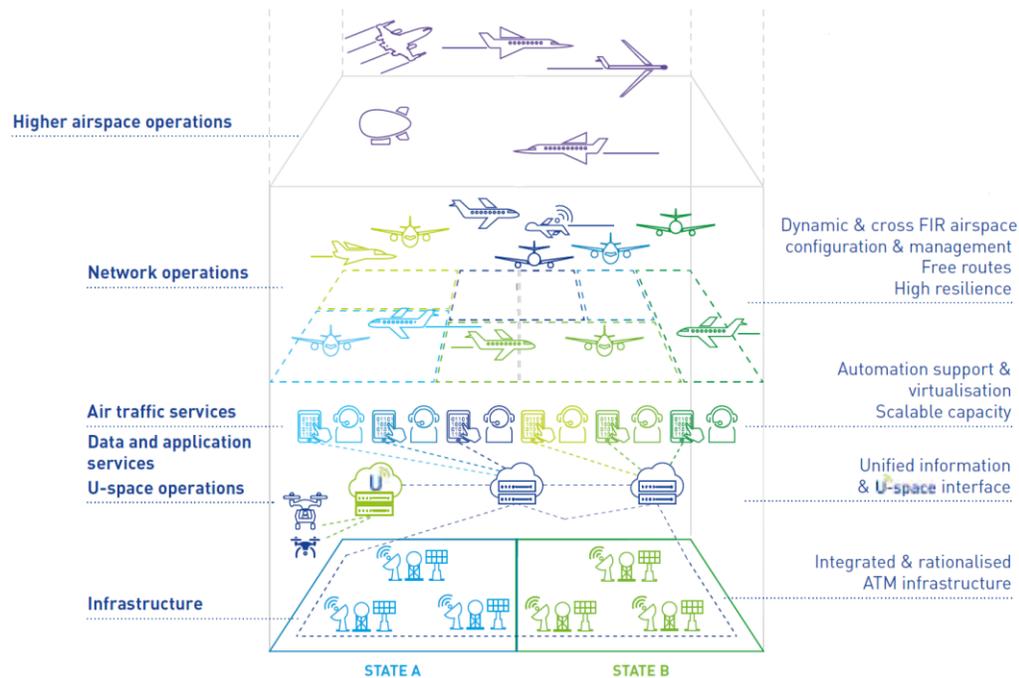


ICAO EMERGING SURVEILLANCE TECHNOLOGIES SYMPOSIUM

CNS - Implementation Goals

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EASA

Operational objectives



A resilient and fully scalable ATM system

- For handling growing air traffic made up of a diverse range of manned and unmanned air vehicles in all classes of airspace, in a safe, secure, sustainable manner.

CNS underpinning technology

CNS Evolution

High performing and interoperable Communication Infrastructure for data and voice

- Terrestrial Data Link L-band digital aeronautical communications system (L-DACS)
- Satellite Communications Data link.

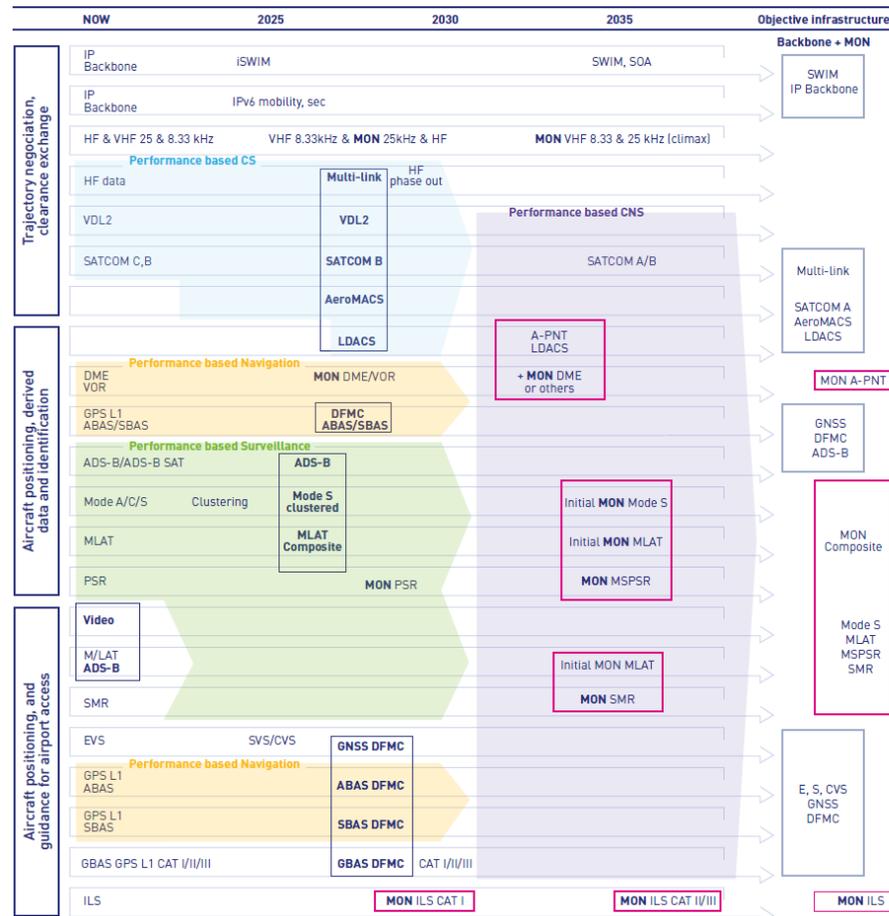
Multi Constellation / Multi Frequency (MC/MF) GNSS

Alternative Position, Navigation and Timing (A-PNT)

- distance measuring equipment (DME)
- inertial reference system (IRS) hybridisation,
- Multilateration
- L-DACS.

Performance based Surveillance systems

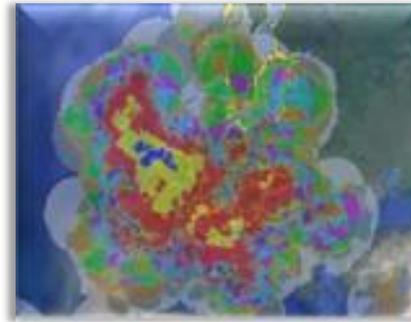
- wide area multilateration (WAM),
- multi-static primary surveillance radar (MSPSR),
- integrated CNS (ICNS),
- space-based ADS-B.



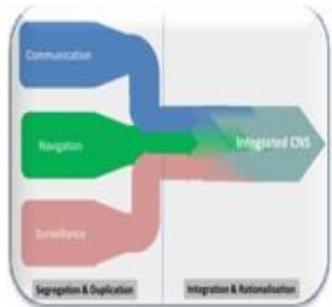
Challenges



Ensuring the **Efficient** use and **long-term** availability of suitable radio spectrum



Safe and efficient transition to a **Rationalised** Infrastructure

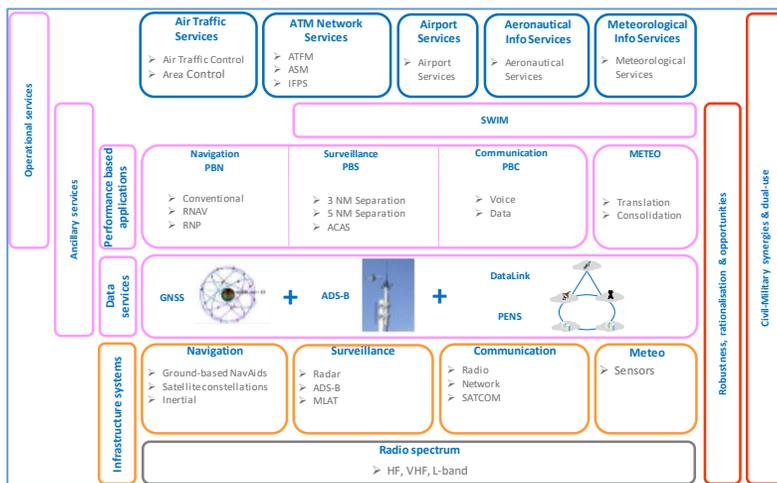


Transition to Performance Based and Integrated CNS



Increased Digitalisation and Connectivity

Meeting the Challenges



Definition

- Effective short, medium and long-term evolution objectives/priorities

Implementation

- Regional

CNS technology and services

ASUR	Surveillance systems	Technology		
COMI	Communication infrastructure	Technology		
COMS	ATS Communication service	Technology		
NAVS	Navigation systems	Technology		

EASA support

Airborne system Specifications

Ground System Specifications

Appropriate definition of roles and responsibilities

Effective Monitoring/Oversight

Safety and operation issue resolution

EASA provides an
Effective Framework

THANK YOU

