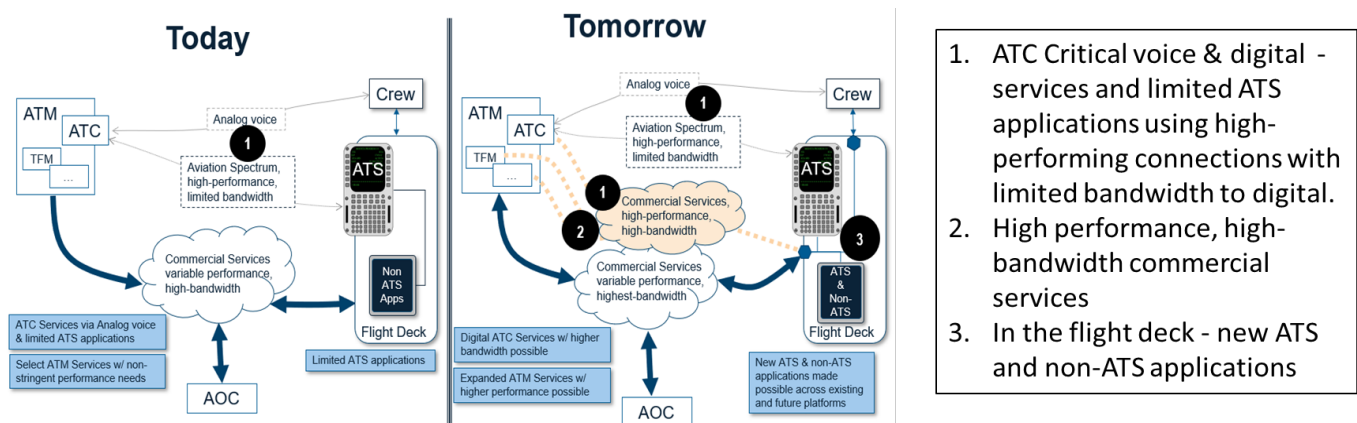


FACTSHEET

Connected Aircraft (CA)
ICN INFO-CENTRIC
NATIONAL AIRSPACE
SYSTEM

Background

The FAA's vision for an info-centric National Airspace System (NAS) centers around operations enabled by an integrated information regime supported by enhanced system-to-system communications. This vision builds on the Next Generation Air Transportation System foundation in three key areas, or pillars: operations, supporting infrastructure, and integrated safety management. Each pillar includes several capabilities. Connected Aircraft (CA) is one of the capabilities in the infrastructure pillar, which will serve as enablers that will facilitate the exchange of information using relevant technologies based on the performance need. The CA technologies will also support unmanned vehicle operations.



Project Description

As aviation evolves, the notion of prescriptive architectures is being replaced by performance-based approaches. The CA concept describes the exchange of a rich set of information between the aircraft and ground automation to improve operational awareness and decision-making. CA will support the transition from voice to digital communication, so that flight crews can access more information from ground systems, and air traffic flow managers can access aircraft information made available by operators and/or flight crews, via various digital data communication links.

The CA will leverage commercial assets, services, and new technologies to enable information exchanges between relevant stakeholders, including commercial operators, general aviation, and new entrants. These advances will ensure secure, resilient, and ubiquitous information sharing with aircraft.

Outcomes

The CA Concept of Operations (ConOps) will provide a description of a future environment where the aircraft and flight deck are exchanging information collaboratively and seamlessly with the flight operations center and air traffic management systems. Additionally, the CA ConOps will provide a description of technical and regulatory standards, as well as safety considerations necessary to enable the CA capability.

To ensure global interoperability, this effort will include coordination with applicable International Civil Aviation Organization (ICAO) technical panels to mature the development of systems standards and guidance materials.

Drivers

- Efficiency shortfalls associated with lack of flight deck participation in collaborative decision making
- Critical aircraft equipage for advanced data communications capabilities
- Information exchanges between aircraft and ground systems
- FAA commitment to collaborate with international partners