

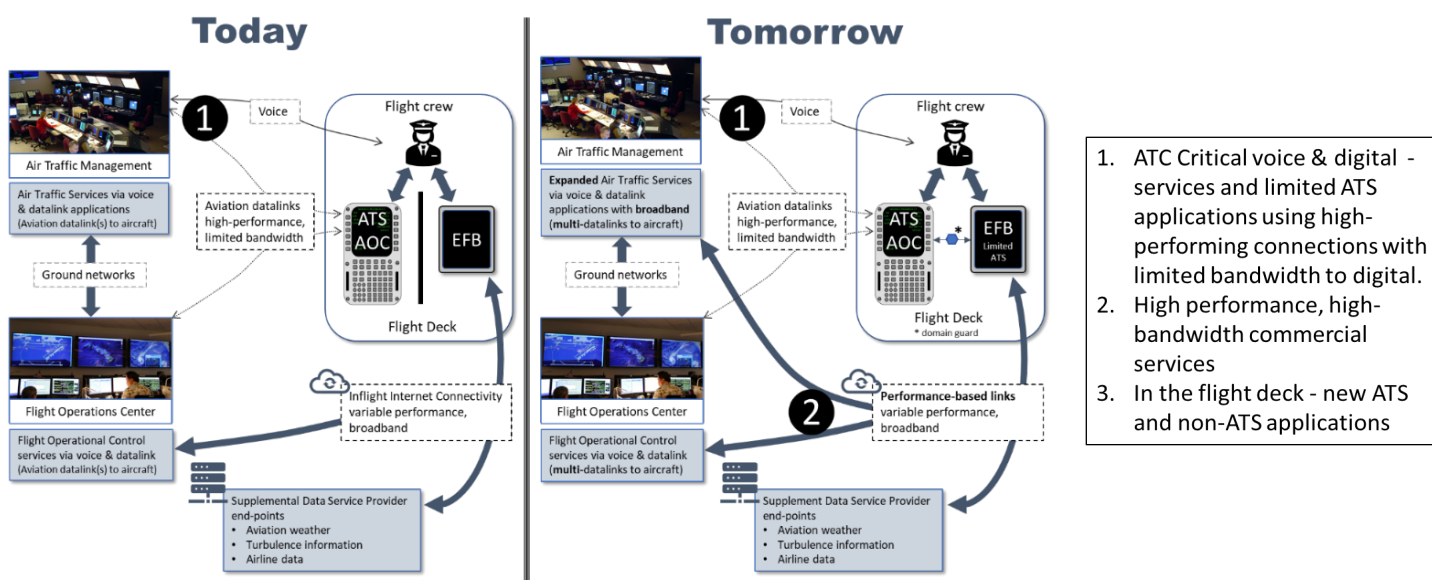
FACTSHEET

Connected Aircraft (CA)



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 help to facilitate the exchange of information using relevant technologies based on the performance need. The CA technologies will also support uncrewed 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.

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 do not effectively scale to meet the future needs
- The FAA's commitment to collaborate with international partners

Outcomes

- Develop a CA Concept of Operations (ConOps) which describes 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
- Ensure global interoperability by coordinating with applicable International Civil Aviation Organization (ICAO) technical panels to mature the development of systems standards and guidance materials