



ADVANCING NEXTGEN WITH SPACE-BASED ADS-B

The Federal Aviation Administration (FAA) is in the process of modernizing the U.S. air traffic control system through a program called NextGen. The objective of NextGen is to increase efficiency and predictability within the National Airspace (NAS) while maintaining uncompromising safety standards.

The Automatic Dependent Surveillance-Broadcast (ADS-B) program is the foundation of NextGen, providing enhanced surveillance that will improve air traffic efficiency and deliver valuable benefits to the airspace users. Space-based ADS-B will extend this critical NextGen air traffic surveillance beyond the reach of traditional ground stations and will provide real-time coverage for not only 100 percent of U.S. managed airspace, but for the first time, 100 percent of the globe.

Expanding ADS-B coverage through a space-based system will significantly increase the benefits in efficiency and safety to all stakeholders, while requiring no additional avionics beyond what is already mandated by the FAA in 2020.



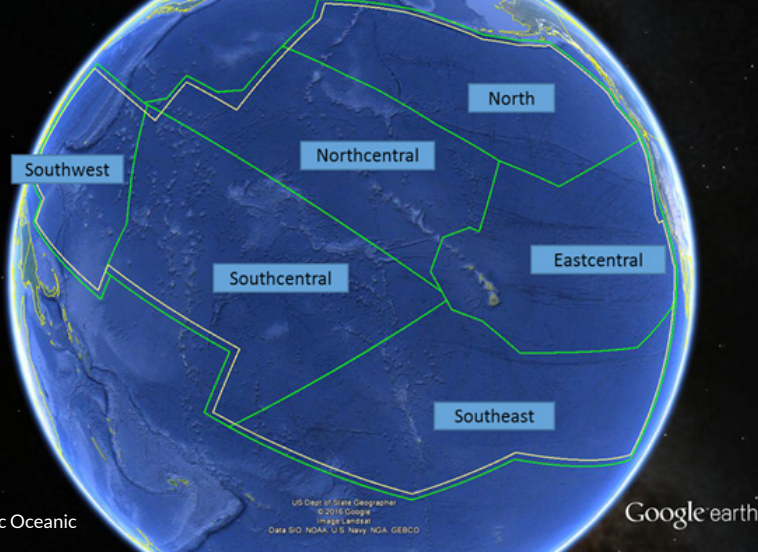
FAA Shaping Space-Based ADS-B

The FAA manages the largest airspace in the world with responsibility for more than 24,600,000 square miles of oceanic airspace. As such, the FAA needed to play an important role in the development and deployment of space-based ADS-B. The FAA was one of the first Air Navigation Service Providers (ANSPs) to partner with Aireon to explore using space-based ADS-B in U.S. airspace and entered into a Memorandum of Agreement in 2011. The FAA has engaged in the development and the design process of the AireonSM system from its inception, in order to influence critical safety and security requirements and to ensure Aireon built a robust surveillance system.

The FAA continues its comprehensive involvement and leadership in the implementation of the innovative technologies by collaborating with Aireon on the integration of space-based ADS-B into existing FAA systems, test and validation activities, safety case development and business model development.



Partners in Delivering NextGen

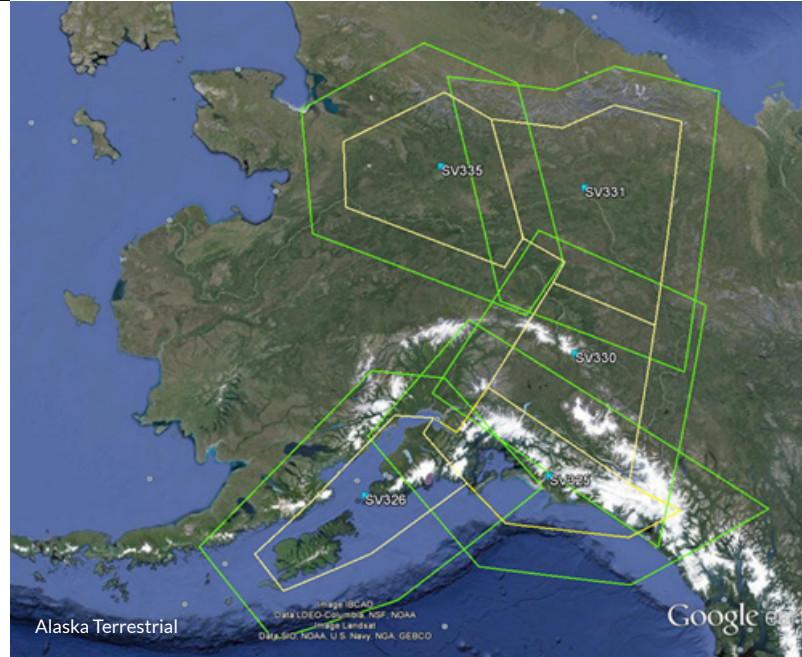


Building on Existing Technology

Space-based ADS-B will support the existing FAA 2020 ADS-B mandate and require no new technology or modification to the mandated avionics. The benefits created by extending ADS-B beyond the terrestrial network will be a net increase to the business case used in the original rulemaking economic analysis. The FAA will also have the opportunity to augment terrestrial ADS-B by adding space-based ADS-B as an additional layer of surveillance with minimal changes to the existing Surveillance and Broadcast Services (SBS) system.

To support the test and validation of space-based ADS-B services, the FAA is in the process of integrating Aireon space-based ADS-B data into the FAA's William J. Hughes Technical Center test systems and modifying the Advanced Technologies and Oceanic Procedures (ATOP) automation system to process space-based ADS-B data.

The FAA is actively involved in the evaluation of Aireon surveillance data, specifically focusing on six challenging oceanic airspace environments, including the key service volumes of New York Oceanic; Oakland Oceanic; Anchorage Oceanic; and Alaska Terrestrial, as well as Miami Oceanic and Houston Oceanic airspace. This testing will support the FAA's evaluation of end-to-end system performance, support safety case development, and conduct pre-operational assessments of space-based ADS-B capabilities in the FAA automation systems.



Global Deployment Collaboration

As an international leader in air traffic management, the FAA has an active role in the International Civil Aviation Organization (ICAO) North Atlantic Systems Planning Group (NAT SPG) chartered to continuously study, monitor and evaluate the air navigation system in light of changing traffic characteristics, technological advances and updated traffic forecasts. The FAA is participating in the NAT SPG to deploy space-based ADS-B in the North Atlantic with an initial target separation of 15nm beginning in 2018.

The Aireon system is expected to be fully operational by 2018. The collaboration between the FAA, NAV CANADA, ENAV, The Irish Aviation Authority (IAA), NAVIAIR, NATS, South Africa's Air Traffic and Navigation Services (ATNS), Curacao's DC-ANSP and The Civil Aviation Authority of Singapore (CAAS) and Aireon allows the FAA to minimize risk in the development of this innovative technology, while allowing airlines to gain early benefits from their investments in ADS-B avionics, prior to the equipage mandate.



1750 Tysons Boulevard , McLean, VA 22102 USA
 +1.703.287.7500 | www.aireon.com | info@aireon.com