Sensis Solutions at Work

Sensis

At a Glance

Improved situational awareness in all weather conditions

Compatible with all existing aircraft transponders

Accuracy: 64 – 128 meters

Coverage: 500 ft. to 10,000 ft. for 1,000 sq. nm.

Juneau WAM

The Challenge:

Monitoring and separation of aircraft across the National Airspace System (NAS) is typically performed using radar; however the mountainous terrain, limited infrastructure, and shear remoteness of many locations in Alaska poses a technically difficult and financially prohibitive situation for tracking aircraft using radar-based technology. To increase aviation safety in Alaska, the FAA needed to install a cost effective technological solution to allow separation of aircraft traveling in the Juneau, Alaska airspace. The FAA requested a multilateration system to cover the area within a 5-mile radius around the Juneau International Airport, plus additional area that extended approximately 10 miles west of the airport. In addition, this needed to be accomplished using existing FAA/leased sites with minimal equipment.

Sensis Solutions at Work:

Sensis and the FAA implemented a Wide Area Multilateration (WAM) surveillance solution utilizing Sensis Multistatic Dependent Surveillance (MDS) technology. Seven remote units were installed in mountaintop locations with very harsh weather environments. The Juneau system confirmed that WAM was a feasible and cost effective solution for tracking fixed wing and rotary wing aircraft operating in a mountainous environment. Both commercial airliners and local helicopters were tracked accurately with minimal equipment as indicated in the program requirements.

The Sensis Juneau WAM equipment successfully demonstrated precision coverage in challenging environments, paving the way toward its future expansion, certification and integration into the Anchorage Center ATC system. Sensis is now expanding the coverage volume and the system will be certified for separation services use within the National Airspace System.

Juneau

WAM

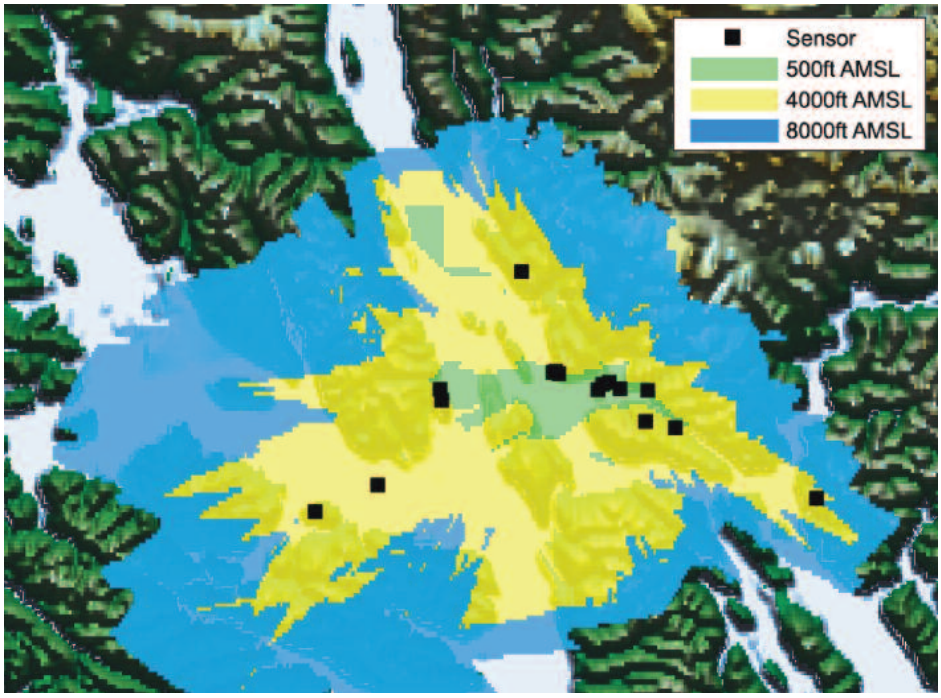
Sensis

Solution Performance

Feature:	Benefit:
Better accuracy and higher update rate than existing radar systems	Enhanced safety from more precise positional information
Adaptable coverage	Surveillance in challenging environments with no coverage gaps
Low maintenance, low power consumption	Little environmental impact
Tracks all transponder types: Mode S, Mode A/C, ADS-B	Transitions technology from currently equipped aircraft to those of the future

About Sensis:

Sensis multilateration is a reliable and tested surveillance solution that is modernizing aviation surveillance worldwide. Sensis is a leader in WAM, fielding the industry's first commissioned multilateration system for WAM at Innsbruck, Austria in 2005. In addition to Juneau, Alaska, Sensis WAM is being deployed at Tasmania, Australia; North Sea oil platforms, United Kingdom; Vancouver Harbor and Fort St. John, Canada; Rifle and Hayden, Colorado; Yuma Proving Ground, Arizona; Patuxent River Naval Air Station, Maryland and Twentynine Palms Marine Corps Air Ground Combat Center, California.



Juneau WAM Coverage Area

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