

Sensis Solutions at Work



At a Glance

Improved efficiency in training, test and operational maneuvers

Low maintenance, low power consumption for remote sites

Accuracy: 8 meters

Coverage: 100 ft. to 26,000 ft., for 965 sq. mi.

Twentynine Palms WAM

The Challenge:

Occupying the vast Morongo Basin in the Mojave Desert, Twentynine Palms Marine Corps Air Ground Combat Center is the world's largest Marine Corps base. It must coordinate the intricate flight and training patterns of military planes and helicopters over the 923 square miles it occupies, as well as commercial aircraft. In the past, 29 Palms relied on procedural control via radio communication and terminal area visual control for tracking aircraft, made difficult by the jagged, steeply sloped, mountainous desert terrain.

Extreme heat, a lack of commercial power and peaks that reach 4,500 feet only added to the already challenging task of synchronizing movements in excess of 6Gs and ensuring the safety of the Marines. The U.S. Marine Corps needed a system capable of tracking aircraft at any altitude over the uneven landscape. The combination of a high volume of air traffic and the use of live ammunition required an accurate system with rapid updates to reduce the probability of incursions.

Sensis Solutions at Work:

To provide a unified picture of the 29 Palms airspace and enhance surveillance accuracy, the Marine Corps deployed Sensis Wide Area Multilateration (WAM). The system is capable of tracking aircraft over rough terrain

and at altitudes ranging from 100 to 26,000 feet. In addition, the system spans beyond the base itself, enabling the military to gather data on flights in surrounding areas. To endure the extreme heat and elements, the system is weather-resistant and solar-powered, taking advantage of the desert environment. Its accuracy far exceeds that of traditional radar systems, with 5.6 updates per second. The system allows for safer training and more precise tracking of both military and commercial aircraft.



Multilateration Sensor with Solar Panel

WAM

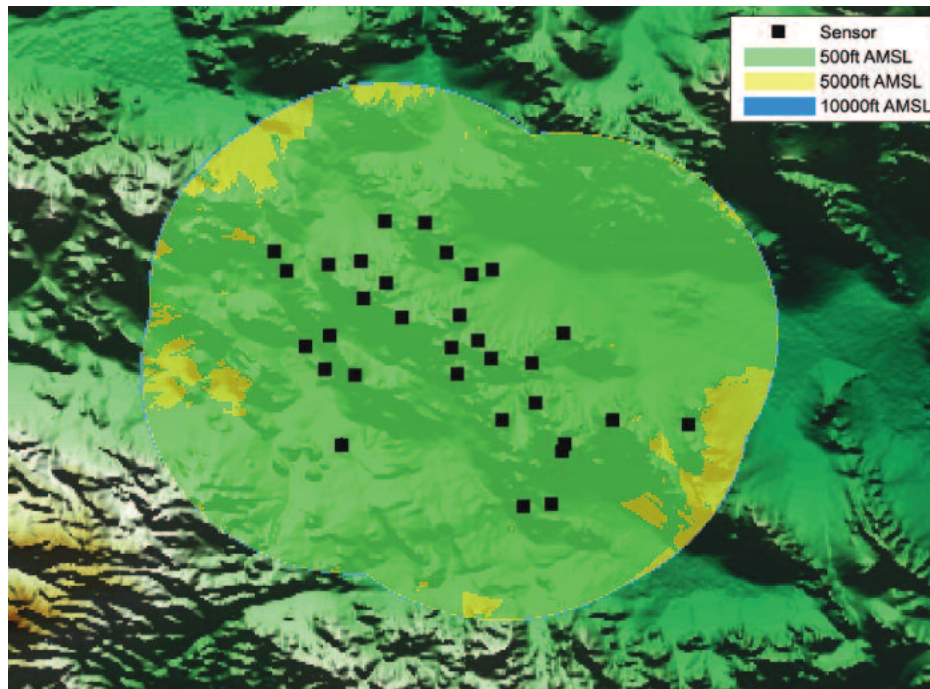


Solution Performance

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 Twentynine Palms Marine Corps Air Ground Combat Center, California, 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; Juneau, Alaska; Yuma Proving Ground, Arizona and Patuxent River Naval Air Station, Maryland.



29 Palms WAM Coverage Area