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LAMS

LOCAL AREA MULTILATERATION SURVEILLANCE SYSTEM

APPLICATIONS FOR THIS PRODUCT INCLUDE:

- ATC aircraft monitoring and radar control services
- Tactical ATC solution for expeditionary forces
- Disaster relief and emergency services

The LAMS from ANPC is a transponder-based surveillance system that uses multilateration to track and display the precise position including altitude of all IFR-equipped aircraft flying within a range of 100 NM, and operates independently of GPS or other satellite-based navigation. It is designed to provide or enhance longrange situational awareness at any airfield lacking radar facilities, in any environment and without the high initial cost and annual maintenance costs of a conventional secondary surveillance radar (SSR).

This innovative system is rapidly deployable, rugged, and reliable in any runway environment, and is contained in a much smaller footprint compared to other multilateration systems requiring widely dispersed sensor units. The LAMS Calibration and Built-In Test assembly monitors the system around the clock to verify the accuracy of all surveillance tracks.

The LAMS compact receivers and all electronics are shipped in a standard 10' Conex container with environmental control for the harshest of climate and weather conditions, and when deployed occupy a small 100 m2 area on the airfield. The system accomplishes this using a combination of Time of Arrival, Angle of Arrival, and Time Difference of Arrival measurements to establish precise aircraft position. The system's placement on or near the airfield is flexible and easily customized to mission requirements.

The system can be unpacked and installed by two technicians to full operational capability in less than two hours, providing unparalleled rapid deployability for any surveillance or radar system.



KEY PRODUCT FEATURES

- Remote Status and Control Unit with SSR display
- ASTERIX data output
- Sets up and operates in GPS-denied environments
- Multilateration update rate provides superior aircraft positioning accuracy to a conventional radar
- Solid state with no moving parts or turntables
- Quickly-deployable antenna structures requiring no heavy installation equipment

- Environmentally-controlled Base Station with maintenance workstation and tool storage
- Ruggedized cables and connectors
- Transportable by a single C-130, Chinook helicopter, flatbed truck, or railcar
- Also available in an ultra-compact configuration shipped on a single 463L master pallet

SYSTEM COMPONENTS

- Optional 10' Conex container for transport and Base Station operations
- Base Station Electronics Rack including
- Dual computers with dissimilar CPUs and operating systems
- Management console
- Interrogation transmitter
- Uninterruptable Power Supply (UPS)
- TECHNICAL CHARACTERISTICS

 Aircraft Capacity Max 300

 Service Volume 100 NM range

 Accuracy 2° azimuth

 Operational Footprint Triangular with 100 m sides

 Altitude Mode C

 Frequency 1030 MHz Interrogation 1090 MHz Transponder reply

- Backup batteries
- Optional spare electronics rack
- Calibration and Built-In Test Assembly (CAL/BIT)
- Controller Console and peripherals
- Power and Ethernet network fiber optic cabling
- Interrogation antennas
- Antenna support structures