SCOUT™

EXPEDITIONARY RADARS BUILT FOR DYNAMIC SPACE AND MISSILE DEFENSE MISSIONS

- Scout is engineered for mobility, modularity, and rapid proliferation in support of a range of missions. They are ruggedized and easily transportable by truck, ship, or aircraft, enabling deployment wherever mission need is greatest.

SCOUT-S

OPTIMIZED FOR SPACE DOMAIN AWARENESS (SDA)

Scout-S supports SDA missions in low Earth orbit (LEO) and very-low Earth orbit (VLEO). It closes coverage gaps between fixed sites and can provide more immediate tracking and characterization for non-cooperative launches. The zenith-facing design provides broad orbital coverage, and its search-to-track and track-while-scan modes enable dynamic detection and tracking.

SCOUT-X

OPTIMIZED FOR MISSILE DEFENSE FROM TERRESTRIAL LOCATIONS

Scout-X enables early warning and tracking of missiles and hypersonic weapons. Its advanced algorithms and canted array allow for early detection of threats emerging from the horizon. Operators can easily integrate Scout-X into tipping-and-cueing networks to transmit and receive tipping and cueing information.

SCOUT-M

OPTIMIZED FOR MISSILE DEFENSE FROM MARITIME LOCATIONS

Scout-M leverages additional features, such as motion-compensated tracking, to extend Scout-X's capabilities to the maritime domain. While it supports the same mission sets as Scout-X, Scout-M offers a unique advantage by enabling tracking at sea to ensure persistent coverage.

NEXT-GENERATION CAPABILITIES FOR SPACE SUPERIORITY

Advanced Architecture	Features 3D pulse-Doppler planar direct radiating array (DRA) technology, operating in S-band
Rapid Deployment	Standard 20-foot ISO container enables fast transport and fielding across land and maritime environments
Mobility for Expanded Coverage	Extends coverage to regions where fixed-site sensing is limited (e.g., at lower altitudes and in dynamic theaters), and includes 50–1000 km slant range
Multi-Mission Flexibility	Operators can configure Scout variants to support a range of missions as a single unit or in sparse networks
Operational Integration	Interoperable with LeoLabs Global Radar Network, the U.S. Unified Data Library, and other sovereign command-and-control and data-link architectures

THE LEOLABS ADVANTAGE

Our radar systems represent a decade of in-house engineering development leveraging proprietary designs, technology, and unmatched technical expertise. They feature world-class digital signal processing software with a field-deployed, in-house developed software-defined radio back end. We also leverage artificial intelligence (AI) to optimize radar scheduling and continuously upgrade our radar hardware and software components to meet customer requirements and evolving mission needs. These systems operate 24/7 in all-weather conditions for up to 20 years.