Single-system Multi-mission
Airborne Mine Detection

# SMAMD

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From the beach to the open ocean, our airborne mine detection technology detects threats and performs onboard real-time processing, alerting the warfighter to dangers that lie below.

## Single-system Multi-mission Airborne Mine Detection

SMAMD is an airborne optical sensor suite that, in a single pass, detects and localizes mines and obstacles on land and at sea in real-time. This laser-based system provides mission-critical capability to enable a high degree of tactical mobility from ship to shore. Real-time detection is key to take action against drifting or moving targets. By tapping into the visible portion of the electromagnetic spectrum, these sensors can penetrate through the water, detecting objects and threats which impede safe access of expeditionary forces through shipping lanes and to our adversaries' shores. The SMAMD sensors and processing software have been matured through leveraging hundreds of hours of flight data evaluated with receiver operating characteristic curves. SMAMD provides our warfighters with the data they need to act quickly, maintaining operational tempo for mission success.

With a low false-alarm rate, SMAMD provides real-time detection, giving expeditionary forces confidence while providing safe and effective threat detection. SMAMD effectively combines the Airborne Laser Mine Detection (ALMDS) and Coastal Battlefield Reconnaissance and Analysis (COBRA) missions on the MQ-8C, reducing total ownership cost, and improving both performance and operational suitability. SMAMD consists of a passive sensor pod that uses sun as its light source, and an active sensor pod, which carries a laser for its light source. At night, the passive pod can be removed to accommodate other payloads or increase platform endurance.

## Key features and benefits

- Low false-alarm rate reduces stress on neutralization systems
- Day/night operation gives expeditionary forces flexibility to maintain operational tempo
- Scalable and modular technology increases mission survivability, speed, and accuracy
- The system is both platform and threat agnostic, enabling employment on multiple vehicles for multiple missions
- The programmable LIDAR scanner provides flexibility to maintain effectiveness at wide ranges of platform speeds and altitudes
- Pod sets can be configured to prioritize search rate, reduce mission time, or minimize their footprint on the platform

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