

GA-ASI Advances Unmanned Sub-Hunting with Test of New Air-Dropped Sensors



From GA-ASI

SAN DIEGO – 25 February 2025 – General Atomics Aeronautical Systems, Inc. (GA-ASI) continues to expand the role of

unmanned aerial systems, demonstrating the first-ever Anti-Submarine Warfare (ASW) capability on an MQ-9B SeaGuardian®. In a groundbreaking test from January 20-30, 2025, a company-operated MQ-9B SeaGuardian successfully deployed and tested anti-submarine sensors using multiple pre-production Sonobuoy Dispensing System (SDS) pods.

Having already proven its ability to track submerged targets, SeaGuardian took this capability further with GA-ASI's newly designed SDS pods. These pods deployed multiple sonobuoys to conduct onboard thermal-depth and acoustic data processing. Using Directional Frequency Analysis and Recording (DIFAR), Directional Command Activated Sonobuoy System (DICASS), and Bathythermograph sonobuoys, SeaGuardian effectively detected, tracked, and analyzed underwater targets while collecting critical acoustic intelligence.

"This demonstration represents a major leap forward in unmanned capabilities and marks a major milestone in proving that an unmanned aircraft can perform end-to-end persistent ASW operations," said GA-ASI President David R. Alexander. "The success of this testing paves the way for enhanced anti-submarine warfare capabilities on the MQ-9B SeaGuardian. We look forward to continued collaboration with the U.S. Navy as they explore innovative solutions for distributed maritime operations in the undersea domain."

As part of the development process, GA-ASI successfully deployed multiple DIFAR and DICASS test sonobuoys, precisely correlating ejection speed with stress/strain data. This provided a high-fidelity launch model to refine future deployment capabilities.

Naval Air Warfare Center Aircraft Division (NAWCAD) AIRWorks played a key role in supporting and overseeing the development, ensuring the system meets emerging warfighter needs. AIRWorks has partnered with GA-ASI in multiple ASW demonstrations, including the Rim of the Pacific (RIMPAC)

exercise in July 2024.

With strong demand already in place from multiple customers, GA-ASI anticipates increasing interest in the MQ-9B SeaGuardian, given its high-end maritime capabilities at a significantly lower cost than traditional manned maritime platforms.