Leidos autonomy earns its place at RIMPAC and with carrier strike group

RESTON, Va. – Leidos maritime autonomy recently reached two significant milestones supporting U.S. Navy operations, with Sea Hunter at Rim of the Pacific 2026 (RIMPAC) and Seahawk operating with the USS Theodore Roosevelt Carrier Strike Group.

Why it matters: The milestones reinforce the growing role of autonomous vessels and mark a milestone in moving these systems from experimentation to the U.S. Navy fleet.

At RIMPAC 2026

Sea Hunter, originally developed by Leidos, participated in RIMPAC as the exercise's only Medium Unmanned Surface Vessel (MUSV).

Powered by the Leidos Autonomous Vessel Architecture (LAVA), Sea Hunter:

- Operated autonomously more than 2,000 nautical miles from Pearl Harbor, Hawaii, to San Diego, California
- Demonstrated autonomous surveillance
- Demonstrated manned-unmanned teaming, operating as part of a larger naval force as well as a stand-alone platform

With the USS Theodore Roosevelt Carrier Strike Group

Seahawk is operating alongside crewed naval forces as the first MUSV to deploy operationally with a carrier strike group.

Operating within the strike group's communications, command-and-control and operational framework, Seahawk's capabilities include:

- Autonomous navigation and perception

- Collision avoidance: Compliance with International Regulations for Preventing Collisions at Sea (COLREGs) and hazard avoidance
- Keep Out Zone avoidance: Automatically navigates around designated restricted areas
- Communications failover and remote control: Maintains control through alternate communications paths
- GPS-denied navigation: Followed commanded waypoints without GPS and reintegrated GPS while remaining on track

Expert perspective

"Sea Hunter and Seahawk show what more than a decade of

operating autonomy at sea brings to the mission," said Mike Rickels, Leidos senior vice president for Maritime. "Real-world operations validate performance while providing lessons that further refine autonomy for future missions."

The technology

Sea Hunter and Seahawk are powered by LAVA, the modular software that enables autonomous navigation, mission execution, obstacle avoidance and other critical functions. It also provides a common autonomy foundation that can support different vessels and mission requirements.

By the numbers

Across its autonomous maritime portfolio, Leidos vessels and autonomy software have accumulated:

- Over 200,000 nautical miles of autonomous operation
- 14,000 hours of safe autonomous operation
- More than a decade of autonomous maritime development and operational experience

The big picture

Leidos' experience extends beyond autonomous navigation. In 2021, the Leidos-built MUSV Ranger, operating with LAVA, test-fired an SM-6 Standard Missile from a modular launch system as part of the Navy's Ghost Fleet Overlord program.

Together, Sea Hunter, Seahawk and Ranger demonstrate the breadth of Leidos maritime autonomy across vessels, missions and operating environments.

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