

Zelim Signs CRADA with US Navy to Trial Maritime AI Detection System ZOE at Bluetide 2025



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Zelim, a leader in AI-driven maritime safety and security systems, has signed a Cooperative Research and Development Agreement (CRADA) with the U.S. Navy's Naval Undersea Warfare Center (NUWC), Division Newport to trial ZOE for the detection of uncrewed surface vessels (USVs).

The agreement enables Zelim's participation in BlueTIDE 2025, a high-profile demonstration event led by 401 Tech Bridge, NavalX, and the Northeast Tech Bridge. The event will culminate in a full-scale in-water trial on August 28 in Narragansett Bay, Rhode Island.

Zelim is one of just a handful of international companies selected as finalists in the 2025 BlueTIDE Prize Challenge, following a competitive evaluation process.

This year's mission scenario focuses on protecting critical subsea infrastructure from hostile activity involving small crewed and uncrewed autonomous systems. Zelim's role in the scenario involves detecting small remotely operated surface vessels operating covertly in sensitive areas, which may pose a precursor threat to subsurface sabotage.

The award-winning ZOE MOB system is already deployed in the cruise industry and offshore sector, detecting, alerting, and tracking persons in the water following man overboard incidents. The same AI engine, trained to identify specific

shapes, behaviours and anomalies in complex marine environments, also powers ZOE Shield – a new capability under development that delivers maritime situational awareness by detecting and classifying small surface craft that will be operating without AIS.

ZOE Shield adds automated threat classification and alerting logic, supporting operators with early warning and response capabilities. Critically, the system is immune to GPS denial and radar jamming scenarios, which can disrupt traditional situational awareness technology. The ZOE Shield system will be evaluated during BlueTIDE as part of the Navy's interest in layered, intelligent safety, security and surveillance.

“This agreement gives us a unique opportunity to trial ZOE Shield in an operational defence scenario at a US Navy facility, where multiple assets, including USVs will be deployed on the mission,” said Sam Mayall, CEO and co-founder of Zelim.

CRADAs allow non-federal entities to collaborate directly with US Navy personnel and facilities without being subject to federal acquisition rules, while also protecting intellectual property and proprietary data throughout the research period.

The BlueTIDE trial will take place off the coast of Newport, Rhode Island, where ZOE will be used to detect and to keep eyes on surface threats as they come within proximity of the critical infrastructure. The goal is to demonstrate how ZOE can improve reaction time and situational awareness in areas where traditional radar or human watchkeeping might miss or misclassify an approaching threat. Data from the demonstration will be shared with the Navy to support capability assessment and further development.

“This is about closing the gap between detection and decision, especially in domains where the threat is small, fast-moving and unpredictable,” Mayall added. “Our mission is to help

operators identify anomalous behaviour earlier, whether the goal is rescue or protection. This demo is a vital step toward deploying ZOE for real-world defence scenarios.”

Further information will be released following the demonstration and in accordance with the CRADA framework.