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INDUSTRY QUESTIONS THE EXTENT OF SPARTAN'S ROLE IN MINE WARFARE

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Chief of Naval Operations Adm. Vern Clark's call for rapid deployment of the still-in-development Spartan unmanned surface vehicle is leading industry to question whether the vehicle's mine countermeasure functions will complement current mine warfare systems, as the Navy insists, or rather displace an existing program.

In particular, sources familiar with mine warfare programs point to similarities between Spartan's mine reconnaissance capabilities, which uses a towed sensor to conduct bottom mapping, and the Remote Minehunting System, which uses a sensor towed by a semi-submersible remote minehunting vehicle to detect, classify and localize mines.

On Oct. 2, at a conference sponsored by the U.S. Naval Institute Clark in Virginia Beach, VA, Clark said he would like to see Spartan in the fleet by October 2003 (see related article). Clark had most recently been briefed on Spartan by the Naval Undersea Warfare Center during a Sept. 18 visit to the Newport division. During the visit, he seemed enthusiastic about Spartan's potential, according to NUWC officials.

RMS, on the other hand, has had a turbulent year. In April, the Navy terminated RMS installation in new construction DDGs. In July, the Navy altered its policy by directing RMS installation in new construction DDGs 91-96, but calling for its removal from DDGs 97-102. The Navy also indicated RMS will not be included in future Arleigh Burke-class destroyers. Now, the service plans to install RMS on future Littoral Combat Ships.

Vic Ricci, Spartan program manager at the Naval Undersea Warfare Center, said Spartan provides a complement to RMS, and does not threaten to replace the program. Spartan -- whose dual missions include force protection and mine reconnaissance -- will operate in deep waters and littorals, areas RMS also covers. Ricci said although the two programs have "similar capabilities," Spartan is intended for ships that will not have RMS capabilities on board.

"Spartan is not a replacement for the RMS system," Navy spokeswoman Lt. Elissa Smith reiterated. "Spartan and RMS are different programs with different objectives."

Some industry sources and naval analysts point to Spartan's versatility -- in addition to its mine avoidance capabilities -- as giving it an advantage over RMS. Other sources say disparities between the two systems show how they will serve for different, perhaps complementary missions, rather than act in competition.

Spartan uses existing high-speed craft -- 7 or 11-meter Rigid Hull Inflatable boats -- and

will tow either an AQS-20X, AQS-14 or Klein 5500, sensor. RMS uses Raytheon's AQS-20X sensor, which is credited as giving a high area of coverage.

Industry sources say Spartan will be able to reach speeds of 20 to 50 knots; RMS can travel at sustained speeds in excess of 16 knots, or at 12 knots while deploying, retrieving and towing the variable depth sensor.

Spartan is a surface craft while RMS is a semi-submersible system, with just a few feet of mast visible above the surface, making it suitable for clandestine missions.

Supporters of Lockheed Martin's RMS question whether Spartan's RHIB boat design will provide a stable platform for sonar operations, particularly in rough water where the submarine-like RMS is believed to remain stable. One such RMS proponent close to that program said Spartan could only serve as a complement to RMS "if they are at very calm sea."

NUWC officials assured as part of Spartan's advanced concept technology demonstration, they are "including hardware and software solutions which mitigate motion effects in higher sea states."

Neither craft is currently designed for conducting operations in very shallow water, surf zone or beach zone, areas the service has said it lacks reliable mine countermeasure capability. But contractors for both systems said they could potentially fulfill such requirements in the future, if needed.

Ultimately, if RMS is only installed on certain DDGs, much of the fleet will still remain vulnerable to mine attack, industry sources told ITN. Sources pointed to amphibious ships as one example of the types of crafts Spartan could serve.

Yet others remain unconvinced that Spartan -- which is being designed by Raytheon, Northrop Grumman as well as NUWC -- will have significant mine warfare capabilities at all.

"I can see something like this doing a lot of things, but mine operations is probably last on the list," said John Pike, director of GlobalSecurity.org, a Washington-based public policy organization. "I think it would be mainly focused on the terrorist commando speedboat problem and it would basically be a way of having widely distributed presence."

And as for Spartan's overall design, "I have to say that at this point it struck me as long on art work and short on demonstratable capabilities," said Pike.

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