

SOCOM Develops Dry Submersible Mini-Sub for SEALs

by Kris Osborn on January 30, 2014

U.S. Special Operations Command and sub-maker Electric Boat have partnered up to develop a dry submersible mini-submarine designed to deliver Navy SEALs into hostile, high-threat areas beneath the surface of the ocean.

The 31-foot long underwater vehicle, called the User Operational Evaluation System 3, can carry as many as six people. It is currently being tested and developed through a three-year, \$44 million contract with General Dynamics Electric Boat.

The idea with the dry submersible is to minimize risk and fatigue for special operations forces, such as SEALs, who are adept at quietly swimming into hostile areas to complete high-risk missions.

“Combat submersibles are used for shallow water infiltration and exfiltration of special operations forces, reconnaissance, resupply, and other missions in high threat, non-permissive environments,” Capt. Kevin Aandahl, SOCOM spokesman told Military.com.

The pressure hull and motor of the UOES 3 have already been built and are slated for key tests this coming June, Electric Boat officials said. Engineering plans call for the inclusion of a standard suite of submersible navigation systems, gyroscopes, sonar and obstacle avoidance technology, said Franz Edson, director, mission systems and business development, General Dynamics Electric Boat.

“Right now, when we deploy SEALs they typically go in what’s called a wet boat – so they are in the ocean breathing through scuba gear. What the SEALs really want is something where they can get the guys to their objective dry, so they don’t have to endure this harsh water environment,” said Edson.

While SEALs are known for their training and long-distance swimming abilities, a dry submersible could lessen mission fatigue and reduce their exposure to harsh elements such as cold or icy water. Therefore, the UOES 3 would seem to be of particular value in cold or stormy waters given that it would protect them from the elements, one analyst said.

“Let’s not kid ourselves. These are well trained SEALs, but operating in choppy waters or freezing waters is a dicey proposition. You have got to give these guys enormous credit for being

as brave as they are. You don't want them to be out there and not be able to survive," said Daniel Goure, vice president of the Lexington Institute, a Va.-based think tank.

This isn't the first time the Pentagon has tried to build SEALs a similar vehicle. Called the Advanced SEAL Delivery System (ASDS), the submersible was developed and then cancelled in 2006. The ASDS was planned to be launched from a submarine.

It is not yet clear whether the 19-ton dry submersible will be launched from a submarine or from a surface ship, however those questions are now being explored, SOCOM and Electric Boat officials said.

The dry submersible will undergo developmental testing and early operational assessment through fiscal year 2015, Aandahl said.

The UOES 3 is currently being built to commercial specifications through a partnership between General Dynamics Electric Boat and an Italian firm called Giunio Santi Engineering, or GSE, Edson explained. The idea behind using commercial specifications is to leverage the best and most cutting-edge existing technology while working to keep costs lower, he said.

Some of the navigational technology includes a sonar Doppler velocity log which bounces a signal off the bottom of the ocean to help provide essential mission-relevant location information, Edson added.

"After bouncing off the bottom, a signal comes back to an array which tells you how far you are moving," he said.

Another analyst said such a technology could bring an advantage to the SEALs, who may be anticipating a greater emphasis upon maritime missions as land wars in Iraq and Afghanistan wind down and end.

"It is sensible that they would want to deploy in the stealthiest way available. It is something that fits with the traditional missions of the SEALs," said Benjamin Friedman, research fellow in homeland defense and security studies, Cato Institute, a Washington-based D.C. think tank.