Navy Developing Quad-Thruster Vehicle to Grab UUVs From the Sea


Timothy Currie, technical program manager for Aviation Systems at NAVSEA, shows off the ASQUID at Sea-Air-Space on May 8. Lisa Nipp.

Most talk about unmanned underwater vehicles centers around the sonar, battery, and other aspects of the technology and what it can do. But one effort would aim to improve the capability of UUVs by making them easier to recover.

It's known as the Airborne Surface Quad Thruster Interface Device, or ASQUID, and it was on display at the Navy League's annual Sea-Air-Space symposium on Wednesday.

Today, UUVs are recovered from the water via what is known as a Rigid-Hulled Inflatable Boat (RHIB), a small boat that must be manned by Sailors. But that can be dangerous, as it means human beings have to handle a UUV that can weigh upward of 800 pounds while at times battling rough seas. It's also limiting, because RHIBs can only go so far from shore or ship.

ASQUID, however, is a recovery system that allows an MH-60S helicopter to lift them straight out of the sea, said Timothy Currie, technical program manager for aviation systems at Naval Surface Warfare Center Panama City.

"We designed this with internal funding," he told *Seapower* following his presentation. "We attach it to an MH-60S helicopter, fly it out on station, lay it down and let it go."

The device is used to recover Mk 18 mine countermeasures UUVs, but his office envisions making it adaptable to other systems.

It's called a quad-thruster because it has four thrusters that

a Sailor uses to control it, positioning it in place so that the UUV can be scooped up and lifted out of the water.

Currie says this technology could protect Sailors by keeping them out of the minefield.

“It’s a recovery device. I have really nothing to do with the [UUV] system itself,” he said. “This is a prototype we’d like to make scalable for all UUVs.

“Right now, they use a RHIB boat to take it out there really slowly, and anytime there’s a sea state, it starts moving around and gets really dangerous. This takes it much, much farther.” he added. “The biggest advantage is it takes the man out of the minefield.”