

Navy's Orca XLUUV to Have Mine-Laying Mission, Adm. Kilby says



Boeing's Echo Voyager, forerunner of the Orca extra-large unmanned underwater vehicle, or XLUUV. *Boeing*
ARLINGTON, Va. – The Navy is planning on mine laying as the initial mission for the Orca extra-large unmanned underwater vehicle (XLUUV), a Navy official said.

“The XLUUV is a migration from the Echo Voyager from Boeing, with a mission module placed in the middle of it, to initially carry mines,” said Vice Adm. James Kilby, deputy chief of naval operations for Warfighting Requirements and Capabilities, testifying March 18 before the Seapower and Projection Forces Subcommittee of the House Armed Services Committee. “We are pursuing that vehicle because we have operational needs from a combatant commander to go solve this specific problem.”

The Orca, five of which are being built by Boeing, will be an open-architecture, reconfigurable UUV that will be modular in construction and have a modular payload bay. The XLUUV core vehicle will provide guidance and control, navigation, autonomy, situational awareness, core communications, power distribution, energy and power, propulsion and maneuvering, and mission sensors. The length will be greater than 80 feet. The Orca, too large to be carried by a submarine, will be pier-launched.

“We need to get that initial prototype built and start employing it to see if we can achieve the requirements to do that mission set,” Kilby said. “If we can’t meet our milestones, we need to critically look at that and decide if we have to pursue another model or methodology to get after that combatant need. In the case of the XLUUV, we haven’t even had enough run time of that vessel to make that determination yet. Certainly, there [are] challenges with that vehicle.”

The Navy is developing new types of mines: the cylindrical-shaped Clandestine Delivered Mine and the Hammerhead, an encapsulated torpedo designed to lie in wait for submarines. The capsule for the torpedo would be anchored to the ocean floor, much like the Mk60 CAPTOR mine of Cold War vintage that housed a Mk46 antisubmarine torpedo. (The CAPTOR was withdrawn from the Navy’s inventory in 2001.) The Hammerhead is designed to have modular architecture to allow for technology insertion.