

ONR propels cutting-edge technologies at Naval Helicopter Association Symposium

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When officials from the Office of Naval Research (ONR) showed up at the 63rd annual Naval Helicopter Association (NHA) Symposium in San Diego from May 9-12, they displayed a technology that allows helicopter aircraft commanders to "take the fight away from the boat."

One of those ONR-funded technologies, the Low-Cost Imaging Terminal Seeker (LCITS), will give helicopters such as the MH-60 and the AH-1 Cobra that protect fleet ships a newfound tactical advantage.

The LCITS system enables pilots to designate a target, fire a rocket and move on to the next threat. This essentially offers a "fire and forget" capability, which relieves the pilot of the responsibility of guiding the weapon to the target during the time of flight, as is the case with laser-designated weapons. For pilots, that means a faster response when countering threats.

Lt. Col. Raymond Schreiner, a developmental test pilot from China Lake's Naval Air Warfare Center's Weapons Division in California, fired a prototype LCITS weapon and witnessed the LCITS' capability firsthand.

"Putting this on a helicopter gives us the ability to take the fight away from the boat," Schreiner said. "The LCITS technology appears to be well suited for engaging multiple, high-speed seaborne targets in a very short period of time."

The LCITS system comprises three main components: the algorithms that calculate targeting and transfer alignment data; a digital smart launcher; and the prototype LCITS weapon.

The system is a collaborative effort among several partners, including South Korea; the Defense Advanced Research Projects Agency; the Office of the Secretary of Defense; and the Navy International Program Office, all of which helped advance its [optical sensors](#) and infrared-seeker technologies.

"The LCITS program is a wonderful example of how investments in multiple technologies can come together and produce a new capability for the naval warfighter," said Michael Deitchman, director of ONR's Naval Air Warfare and Weapons Department.

Deitchman also praised the LCITS system's ability to accomplish the mission with little to no support.

"The LCITS program is considered "low cost" because it is an augmentation or upgrade to a pre-existing 2.75-inch rocket system," Deitchman said. "Instead of relying on costly parts, sensors and guidance systems, it relies on the aircraft systems to provide the targeting information."

LCITS is undergoing further testing as part of the Medusa Joint Capability Technology Demonstration (JCTD). Medusa JCTD's goal is to integrate the rocket onto the MH-60 aircraft platform. It will also demonstrate the LCITS' capability to defend against multiple fast-attack craft threats from various directions and ranges. Demonstrations will show the rocket system's potential to defeat these targets.

ONR's participation in the NHA event underscores the Navy's commitment to develop technology for the helicopter community. With

more than 3,000 active-duty, Reserve, retired and corporate members, the association says its mission is to enhance the professionalism of military personnel working in the rotary wing aviation field.

The NHA's annual symposium is a platform for collaboration, discussion and a chance to address challenges facing the entire naval rotary wing community, including the Navy, Marine Corps and Coast Guard.

More information: [www.onr.navy.mil/Media-Center/ ... al-Seeker-LCITS.aspx](http://www.onr.navy.mil/Media-Center/...al-Seeker-LCITS.aspx)

Provided by Office of Naval Research

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