Joint Common Missile Seeker Successfully Tracks Tactical Target Vessel In Littoral Testing

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Lockheed Martin has demonstrated the further maturation of its Joint Common Missile (JCM) tri-mode seeker with the successful acquisition and track of a tactical littoral target in a test series conducted during December 2004 at Eglin Air Force Base, Ft. Walton Beach, FL.

The tests, which involved 125 runs, showed the ability of the missile's tri-mode seeker to acquire and track a Boghammar vessel moving at up to 30 knots at ranges of 1 to 6 kilometers. The Swedish Boghammar coastal patrol boat is representative of a typical, hostile patrol craft that war fighters would likely encounter in a littoral scenario. This test demonstrated simultaneous detection and processing by two of the missile's three sensors: the imaging infrared (I2R) and the millimeter wave radar (MMW) -- integrated with the JCM's inertial tracking capability. Target profiles included crossing, diagonal, inbound, outbound, rectangular racetrack, "turntable," orbiting in small circles and evasive maneuvers (s-turns).

The third sensor, the semi-active laser (SAL), gives the JCM precision- strike lethality, and its multi-purpose warhead, set to the blast fragmentation mode, would have enabled the missile to destroy the littoral target in a tactical situation.

"JCM provides a capability that doesn't exist today," said Steve Barnoske, JCM program director at Lockheed Martin Missiles and Fire Control. "Through the Joint Capabilities Integration and Development System (JCIDS) process, our joint services customers developed and validated the requirement for JCM. We know how important meeting those requirements is to our Navy and Marine Corps partners."

"This test versus the Boghammar, along with the previous tests during the coastal maneuvers, demonstrates that our JCM multimode seeker is effective against littoral targets," Barnoske continued. "We are providing the best-performing, lowest-risk solution for our war fighters. Our JCM Phase 1 risk mitigation program is executing to the schedule and budget and achieving success in demonstrating performance."

JCM will replace the type of missiles that were expended during the current conflict, which include Hellfire, Longbow, Maverick and airborne TOW. Through technological advancements, JCM results in greatly enhanced warfighting capability at comparable costs to these missiles.

The test series also collected exclusive "sea state" data in the Gulf of Mexico at levels 1 and 3, reflecting calm and rough seas, respectively. This test was one of numerous risk reduction tests that have significantly mitigated risk on the critical subsystems-tri-mode seeker, warhead and motor.

These Boghammar tracking tests represent the second successful operation of the JCM seeker versus littoral targets. During a mock Marine Corps amphibious invasion near Eglin AFB in the fall of 2003, the seeker successfully acquired and tracked large ships and amphibious landing craft at day and night temperatures and at varying sea states.

The JCM is a multi-target, multi-service weapon with fire-and-forget capability and precision-strike targeting that will increase crew survivability and minimize collateral damage. The single JCM missile will replace the Longbow, Hellfire and airborne TOW missiles for rotary-wing platforms and the Maverick missile for the F-18 attack-fighter that are presently in the United States armed forces' inventory.

The Lockheed Martin JCM builds on the heritage of the Hellfire missile family, which includes the Longbow millimeter wave missile, and the Javelin imaging infrared missile, all of which have been combat-proven in Afghanistan and Iraq, with well over a thousand rounds expended.

Headquartered in Bethesda, MD, Lockheed Martin employs about 130,000 people worldwide and is principally engaged in the research, design, development, manufacture and integration of advanced technology systems, products and services. The corporation reported 2003 sales of $31.8 billion.

SOURCE: Lockheed Martin

Web site: http://www.lockheedmartin.com/

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