



Program Update

LRASM

November 30, 2010

DARPA Long Range Anti-ship Missile Program Continues to Demonstration Phase

Current anti-ship weapons possess limited range and lethality. As at-sea warfare advances, next generation standoff anti-ship weapons systems are needed. The Defense Advanced Research Projects Agency's (DARPA) Long Range Anti-Ship Missile (LRASM) program is addressing this need by designing and demonstrating two variants of a new anti-ship missile.

The joint DARPA – U.S. Navy LRASM program was initiated in 2009 to deliver a new generation of highly capable anti-ship weapons. During Phase 1 of the program, preliminary designs of the LRASM-A and LRASM-B variants were completed by Lockheed Martin Missiles and Fire Control Strike Weapons and assessed by an independent government assessment team. LRASM-A leverages the state-of-the-art Joint Air to Surface Standoff Missile Extended Range (JASSM-ER) airframe and adds additional sensors and systems to achieve a stealthy and survivable subsonic cruise missile. LRASM-B leverages prior ramjet development activities and a suite of supporting sensors and avionics to achieve a supersonic cruise missile with balanced speed and stealth for robust performance. Phase 1 ended successfully and provided sufficient confidence in the two designs to support further investment for flight testing.

Phase 2 (demonstration phase) will continue the development and demonstration of both missiles, including the common BAE provided sensor system. Once detailed designs are generated, the LRASM government assessment team will conduct comprehensive analytical evaluations of their expected operational performance. A series of developmental test activities will demonstrate the performance of key subsystems, including propulsion, sensors and mission execution software. Detailed designs, analytical assessments and developmental test results will culminate in critical design reviews (CDR), ensuring each design is ready to continue on to flight demonstration. Following approval of CDR, the program will complete system fabrication and integration to support the flight test series. LRASM-A will execute two air-launched demonstrations leveraging its JASSM-ER heritage and demonstrating applicability to Navy and Air Force tactical aircraft employment, while LRASM-B will complete four Vertical Launch System (VLS) demonstrations proving applicability to Navy surface combatant employment. Both LRASM-A and LRASM-B designs plan to support air-launch and VLS-launch configurations.

DARPA has selected three vendors to complete the design and flight demonstration of the two LRASM variants as well as deliver common sensor technology. Lockheed Martin Missiles and Fire Control Strike Weapons, based in Orlando, Fla., will demonstrate the LRASM-A prototype weapon system while Lockheed Martin Missile and Fire Control Tactical Missiles, based in Grand Prairie, Texas, will demonstrate the LRASM-B prototype weapon system. BAE Systems, Information and Electronic Systems Integration, based in Nashua, N.H., will design and deliver the onboard sensor systems to support both LRASM variants.

LRASM is on track to deliver two prototype weapon options to the military services with unprecedented capability to succeed in challenging future operational environments, while having sufficient maturity to support rapid transition to address today's operational challenges.

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