Lockheed Martin Team Completes Calibration Of Key Component For MDA's Multiple Kill Vehicle-L

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Lockheed Martin announced today that its team has completed an important milestone for a key element of the U.S. Missile Defense Agency's Multiple Kill Vehicle-L (MKV-L) payload by successfully calibrating an operational pathfinder seeker for the carrier vehicle at the Space Dynamics Laboratory in North Logan, Utah.

During an engagement with the enemy, the carrier vehicle with its cargo of kill vehicles is designed to maneuver into the threat complex to intercept the targets. With tracking data from the Ballistic Missile Defense System and its own seeker, the carrier vehicle dispenses and guides the kill vehicles to destroy targets in the complex. Based on a lightweight reflective telescope, the carrier vehicle seeker uses infrared heat-detecting technology to locate threat objects.

"Completion of this milestone validates the design and core technology required for tracking and discriminating targets," said Rick Reginato, Multiple Kill Vehicle program director, Lockheed Martin Space Systems Company. "This effort involved the development of telescopes, structures, electronics and software to meet the challenging requirements of mid-course threat sensing."

Successfully calibrating the pathfinder seeker enables the team to proceed with building two operational prototype seekers, each with a state-of-the-art infrared, large-format focal plane array. In a series of "captive carry" flight tests planned for 2009, the team will mount one of the new seekers on an aircraft to sense missile targets of opportunity in a true flight environment. Lockheed Martin will integrate the other seeker into a hardware- in-the-loop laboratory to demonstrate the ability to engage multiple targets with multiple kill vehicles.

The MKV-L seeker development team for the Missile Defense Agency includes: Lockheed Martin Space Systems, the prime integrator; BAE Systems, seeker integration; Utah State University, calibration agent; and the Naval Research Lab and MIT Lincoln Labs, who are providing a pathfinder seeker focal plane and supporting electronics. Raytheon Vision Systems and DRS Technologies will each provide 512x512 HgCdTe focal planes for the prototype seekers that BAE will build this summer.

The Missile Defense Agency's Multiple Kill Vehicle is a force multiplier for all of the land- and sea-based weapons of the integrated midcourse missile defense system. In the event of an enemy launch, a single interceptor equipped with this payload destroys not only the re-entry vehicle but also all credible threat objects, including countermeasures the enemy deploys to try to spoof our defenses. This many-on-many strategy eliminates the need for extensive pre-launch intelligence while leveraging the Ballistic Missile Defense System's discrimination capability, ensuring a robust and affordable solution to emerging threats. Developing, testing and deploying a layered Ballistic Missile Defense System for the U.S. homeland, its deployed forces, friends and allies is essential for protecting against ballistic missiles of all ranges in all phases of flight.

Lockheed Martin Space Systems Company, Sunnyvale, Calif., is the prime contractor for the Multiple Kill Vehicle-L payload system.

Lockheed Martin is a world leader in systems integration and the development of air and missile defense systems and technologies, including the first operational hit-to-kill missile. It also has considerable experience in missile design and production, infrared seekers, command and control/battle management, and communications, precision pointing and tracking optics, as well as radar and signal processing. The company makes significant contributions to nearly all major U.S. missile defense systems and participates in several global missile defense partnerships.

Headquartered in Bethesda, Md., Lockheed Martin employs about 140,000 people worldwide and is principally engaged in the research, design, development, manufacture, integration and sustainment of advanced technology systems, products and services. The Corporation reported 2007 sales of $41.9 billion.

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