Lockheed Martin Team Demonstrates Engagement Management Algorithms For MDA's Multiple Kill Vehicle-L

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Lockheed Martin announced today that it has achieved a key milestone for the U.S. Missile Defense Agency's Multiple Kill Vehicle-L (MKV-L) payload by successfully demonstrating engagement management algorithms in a software test bed environment in Huntsville, Ala.

During an engagement with the enemy, the MKV-L 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. The engagement management algorithms will perform tracking and discrimination, guidance and control, and battle management functions.

"This demonstration verified the ability of sophisticated algorithms to effectively manage the engagement of multiple kill vehicles," said Rick Reginato, Multiple Kill Vehicle program director, Lockheed Martin Space Systems Company. "The use of test beds enables a disciplined, progressive approach to validating the key software and hardware components for this critical capability for the nation."

The team now will proceed with further algorithm development, followed by a real-time engagement management demonstration of the algorithms operating in a prototype flight computer with complex threat scenarios. Later demonstrations will incorporate the MKV-L carrier vehicle sensor hardware into the real-time test bed.

Lockheed Martin Space Systems Company, Sunnyvale, Calif., is the prime contractor for the Multiple Kill Vehicle-L payload system. For MKV-L engagement management algorithm development, Lockheed Martin performs systems engineering and integration, algorithm development, model-based software development and software testing and integration; and MIT Lincoln Laboratory performs algorithm development.

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 all credible threat objects, including countermeasures. 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 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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