Multiple Kill Vehicle Program Achieves Key Milestone

Lieutenant General Henry “Trey” Obering, Missile Defense Agency director, announced today the Agency’s Multiple Kill Vehicle (MKV) program has successfully demonstrated the engagement management algorithms for the Multiple Kill Vehicle-L carrier vehicle during a modeling and simulation exercise at a Lockheed Martin facility in Huntsville, Alabama.

During an actual hostile ballistic missile attack on the United States, our deployed forces, or our allies and friends, the carrier vehicle with its cargo of small kill vehicles will maneuver into the path of an enemy missile equipped with multiple warheads and/or decoys or other countermeasures to intercept and destroy all of the target objects. 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 this threat complex.

Successfully demonstrating the complex algorithms needed to assign and guide the kill vehicles in a high fidelity, six degree-of-freedom simulation is a necessary precursor to the next phase of development: Loading these algorithms on a prototype flight computer in order to prove the carrier vehicle can manage the kill vehicles in the time it will take to complete a real mission against a complex target.

The MKV mission is to negate medium and intercontinental-range ballistic missiles equipped with multiple warheads and/or countermeasures in the midcourse attack phase with a single engaging interceptor missile. Instead of pairing one kill vehicle with one interceptor missile, MKV payloads will allow a single interceptor missile to deliver several kill vehicles. The MKV capability dramatically alters the defensive battlespace in favor of the United States, our deployed forces, and our allies and friends.

The engagement management algorithm team for the Missile Defense Agency includes the MKV-L prime integrator, Lockheed Martin Space Systems, and also MIT’s Lincoln Laboratory, the Johns Hopkins Applied Physics Laboratory and several of the program office’s industry partners.

Missile Defense Agency Public Affairs contacts: Pamela Rogers, 256-450-1421, Pamela.Rogers@mda.mil or Rick Lehner, (703) 697-8997, Richard.Lehner@mda.mil.