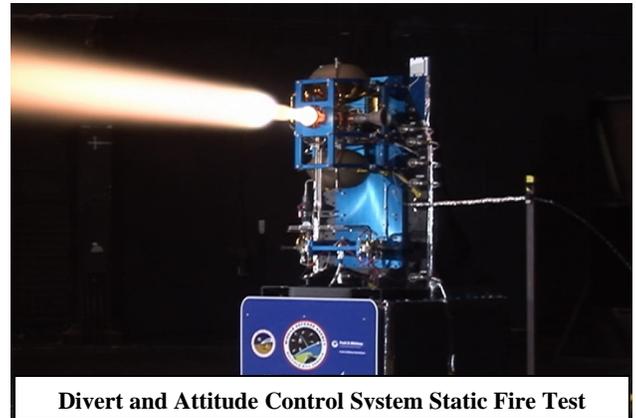




Multiple Kill Vehicle

The multiple kill vehicle payload will counter complex ballistic missile threats during their midcourse phase of flight with multiple kill vehicles launched from a single interceptor missile. The rapidly evolving and emerging threat drives all midcourse defense weapon systems to pursue multiple kill capability as soon as practical. During midcourse flight, the enemy may attempt to disguise their warhead or deploy decoys and other types of debris around their warhead in an effort to confuse the Ballistic Missile Defense System sensors. Multiple kill vehicle payloads do not require the Ballistic Missile Defense System to pinpoint a single lethal object within a threat cluster. Instead of pairing one kill vehicle with one interceptor missile, the multiple kill vehicle payload allows a single interceptor missile to deliver several kill vehicles that can attack multiple threat objects within the threat cluster. Multiple kill capability dramatically increases the probability of destroying the lethal objects within a threat cluster.



Divert and Attitude Control System Static Fire Test

Details

- This element will provide multiple kill capability to all midcourse interceptor elements: Ground-Based Midcourse, Kinetic Energy Interceptors, and Aegis Ballistic Missile Defense.
- The Missile Defense Agency strategy is to manage all future kill vehicle development under a single program office emphasizing open architecture and common standards and interfaces.
- The single kill vehicle program office strategy focuses government and industry engineering talent to ensure delivery of this critical capability to the weapons system integrators.
- A flexible, decision-based approach will be used with knowledge points and key component and development test events early in the program.
- The focus will remain on low technical and schedule risk using a parallel path approach with two payload providers.

Development

- Completed the System Concept Review on August 3, 2006 to select a concept while balancing performance requirements, growth capabilities, cost, and schedule
- Initiated trade studies to establish payload requirements for integration across multiple midcourse booster elements.
- Conducted Divert and Attitude Control System static fire test to prove the propulsion technology intended for use during hover tests
- Initiated digital simulation and hardware-in-the-loop test-bed development to demonstrate engagement management capability
- Upcoming component development and test events:
 - develop and test engagement management capability FY08-10
 - conduct Divert and Attitude Control System static and hover testing FY08-12
 - conduct airborne captive carry seeker testing FY09-10