



For Your Information

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Washington, DC 20301-7100

06-FYI-0089

20 November 2006

Distributed Ground Test Successfully Tests Operational Missile Defense Systems

Lt. General Henry "Trey" Obering, Missile Defense Agency director, announced today the successful execution of Distributed Ground Test 01 (GTD-01), an important test of hardware, software, and communication interfaces of the Ballistic Missile Defense System (BMDS) against simulated ballistic missile threats. This is the first BMDS integrated ground test that uses operational BMDS systems and communications to assess system functionality and interoperability under increasingly stressing conditions.

The test was conducted October 23 – November 9, 2006 from the MDA Combined Test Force Ground Test Center located at the Joint National Integration Center in Colorado Springs, Colo. This global test involved 17 distributed sites, including two ships, satellites and 3,500 miles of communications and network infrastructure located in seven states and Japan.

A primary focus of this test was to assess the execution and functionality of various BMDS Engagement Sequence Groups. An Engagement Sequence Group identifies the combination of weapons and sensors that work together to detect, track and intercept an enemy missile. Integrating varying components dramatically expands detection and engagement zones beyond what could be achieved by standalone elements. For example, the test recently completed successfully exercised the capability of a forward-based AN/TPY-2 transportable X-band radar to provide data to the BMDS Command, Control, Battle Management and Communications (C2BMC) element, which then forwarded information to the Ground-based Midcourse Defense (GMD) element, the long-range interceptor element designed to defend the United States against a long-range ballistic missile attack.

The three-week test also assessed the ability of the BMDS to simultaneously execute multiple Engagement Sequence Groups against multiple raid sizes using operational BMDS communications, including concurrent engagements using Ground-Based Interceptors and Standard Missile-3 missiles designed for use aboard U.S. Navy cruisers and destroyers.

Participants from the ballistic missile defense operational community included the Operational Test Agencies, U.S. Northern Command, U.S. Pacific Command and U.S. Strategic Command. The test provided a significant opportunity for warfighters from each service, in particular the 94th U.S. Army Air and Missile Defense Command, to practice and refine tactics, techniques and procedures to defend the United States.

Tested components included AN/TPY-2 radar, GMD and associated Early Warning Radars, C2BMC, Aegis Ballistic Missile Defense, and the Space-Based Infrared System, the new early warning satellite system now being developed. The test used the MDA Missile Defense System Exerciser (MDSE) to connect and control BMDS elements. Deployed assets were tested in operational configuration where possible and supplemented by Hardware-in-the-Loop Laboratories across the country.

Ground tests play a vital role in the development of new capabilities for missile defense by providing program officials with detailed information about hardware and software system performance, while reducing the cost and schedule demands that would be required to provide the same performance data through an extensive flight test program. Ground tests enable simulated real-world threat scenarios to be simultaneously injected into geographically distributed operational sensors and weapon systems. Operational systems respond in real-

time via their respective operational communications links, allowing each individual BMDS system to operate in an operationally realistic environment without launch of any targets or interceptors.

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