

Aegis Ballistic Missile Defense Weapon System Guides Missile To Seventh Successful Target Intercept

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During a test today the Aegis Ballistic Missile Defense (BMD) Weapon System with its Standard Missile (SM)-3 successfully intercepted a ballistic missile target with a separating reentry vehicle outside the Earth's atmosphere. Both the Aegis BMD Weapon System aboard the guided missile cruiser USS Shiloh (CG 67) and range sensors confirmed a direct hit of the missile target during its midcourse flight phase over the Pacific Ocean.

Lockheed Martin develops the Aegis BMD Weapon System and serves as the Combat System Engineering Agent for the U.S. Navy and Missile Defense Agency's Aegis BMD Weapon System program.

This Missile Defense Agency-sponsored test -- Flight Test Maritime-10 (FTM-10) -- marks the seventh time the Aegis BMD Weapon System has successfully guided an SM-3 to a ballistic missile target intercept and the second time that the system intercepted a ballistic missile with a separating reentry vehicle. U.S. Navy ships equipped with earlier versions of Aegis BMD capability have been on operational duty since September 2004.

During the test, the Aegis SPY-1B radar aboard USS Shiloh provided real-time detection, tracking and discrimination of the medium-range target with its separating warhead. Once the SM-3 was launched, the Aegis BMD Weapon System continued to track the target and provide guidance commands to the SM-3 to intercept the target. USS Shiloh was deployed with the latest versions of the Aegis BMD equipment and computer programs, BMD 3.6, and the SM-3 Block IA missile. The Aegis BMD 3.6 combat system will be certified for tactical deployment this fall.

In addition to USS Shiloh, three other U.S. Navy ships and a Japanese destroyer participated in the intercept test:

- * USS Lake Erie (CG 70), deployed with the prototype Aegis BMD Signal Processor (BSP), detected, tracked and discriminated the separating target warhead in real-time.
- * USS Paul Hamilton (DDG 60) exercised its Long Range Surveillance and Tracking (LRS&T) capability.
- * USS Milius (DDG 69), employing the 3.6 version of Aegis BMD in a LRS&T operation, provided fire control information to other elements of the Ballistic Missile Defense System (BMDS) and received a cue from a prototype X-band radar on Kauai. This prototype radar is a version of one being deployed by the Missile Defense Agency (MDA) in Japan.
- * The Japanese Maritime Self Defense Force (JMSDF) ship JDS Kirishima (DDG 174), equipped with the Aegis Weapon System, tracked the ballistic missile target.

"Every Aegis BMD test pushes the envelope on what is possible for missile defense from the sea," said Orlando Carvalho, vice president and general manager of Lockheed Martin's business unit in Moorestown. "The success achieved today is a direct result of the professionalism of the Sailors operating these ships and the thorough systems engineering accomplished collaboratively by the Navy, MDA and industry."

The SPY-1 radar, augmented by the Aegis BSP signal processor, which is in development and will be installed in Aegis BMD ships beginning in 2010, provides an advanced discrimination capability to defeat more complex ballistic missile threats. The Aegis BSP is an open architecture design, allowing for quick and affordable upgrades as the signal processor technology evolves. The move to open architecture for Aegis BMD is in parallel and aligned with the Navy's Aegis Open Architecture (OA) initiative to transform the (non-BMD) Aegis Weapon System to a fully open architecture system, beginning with the Cruiser Modernization Program now underway. BMD capability will be included in modernized OA Aegis cruisers and destroyers starting in 2012.

The target missile intercepted in today's test was provided by the MDA's Targets and Countermeasures Program, for which Lockheed Martin is prime contractor. A team of Lockheed Martin Space Systems Company and Orbital Sciences Corporation personnel launched the target missile from the Pacific Missile Range Facility in Kauai.

The MDA and the U.S. Navy are jointly developing Aegis BMD as part of the nation's Ballistic Missile Defense System (BMDS). Ultimately 15 Aegis destroyers and three Aegis cruisers will be outfitted with the capability to conduct LRS&T and engagement of short- and medium-range ballistic missile threats using the Aegis BMD Weapon System and its SM-3. To date, 11 Aegis destroyers have been upgraded with the LRS&T capability and two Aegis cruisers have been outfitted with the emergency engagement and LRS&T capability.

The Aegis Weapon System is the world's premier naval surface defense system and is the foundation for Aegis BMD, the primary component of the sea-based element of the United States' BMDS. The Aegis BMD Weapon System seamlessly integrates the SPY-1 radar, the MK 41 Vertical Launching System, the SM-3 missile and the weapon system's command and control system. The Aegis BMD Weapon System also integrates with the BMDS, receiving cues from and providing cueing information to other BMDS elements.

The Aegis Weapon System is currently deployed on 80 ships around the globe with more than 30 additional ships planned or under contract. In addition to the U.S., Aegis is the maritime weapon system of choice for Japan, South Korea, Norway, Spain and Australia. Japan will begin installation of Aegis BMD in its Kongo class Aegis destroyers in 2007.

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 defense system, PAC-3. It also has considerable experience in interceptor systems, kill vehicles, battle management command, control and communications, precision pointing and tracking optics, as well as radar and other sensors that enable signal processing and data fusion. 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 135,000 people worldwide and is principally engaged in the research, design, development, manufacture, integration and sustainment of advanced technology systems, products and services.

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