



Archive

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Missile Defense Test Conducted

The Missile Defense Agency (MDA) announced Dec. 11 it was not able to complete a test involving the planned intercept of a long-range ballistic missile target over the central Pacific Ocean when the exoatmospheric kill vehicle (EKV) interceptor and the booster rocket failed to separate, preventing the EKV from engaging the target warhead in space.

A modified Minuteman II intercontinental ballistic missile (ICBM) carrying the target warhead was successfully launched from Vandenberg Air Force Base, Calif., at 12:26 a.m. PST, and the booster rocket carrying the EKV was launched approximately 20 minutes later and about 4,800 miles away from Kwajalein Atoll in the Republic of the Marshall Islands. This test was conducted in support of research and development efforts for the Ground-based Midcourse Defense (GMD) program.

This was the final planned test involving the use of the interceptor's booster rocket that has been serving as a surrogate booster system and used for all GMD intercept tests since 1999. In a test on July 8, 2000, an apparently similar anomaly resulted in not completing the test due to the booster and EKV not separating. The surrogate booster is used for the developmental flight test program only, and is not intended for further use in the GMD test program or for a future operational GMD system. Two new booster designs are currently in development and will undergo flight testing beginning next spring. One or both of the new boosters will be used by the GMD program in all future intercept tests beginning late next year.

Initial post-test analysis indicate that all other GMD program elements successfully completed their test objectives, including radars and other sensors, as well as the battle management, command, control and communication elements that are vital in the GMD development effort. In a missile defense research and development program involving a number of different elements such as GMD, the successful integration of system elements is as important as the intercept. USS Lake Erie, an Aegis cruiser, successfully tracked the target missile after launch, and the Airborne Laser, a modified Boeing 747 aircraft, successfully used an installed infrared sensor to detect and track the boosting target missile after launch. The developmental Theater High Altitude Area Defense (THAAD) radar located at Vandenberg Air Force Base also performed well, successfully tracking the target missile after launch.

This was the eighth intercept test of the GMD research and development program. The first test on Oct. 3, 1999, resulted in the successful intercept of a ballistic missile target. The second test took place on Jan. 19, 2000, and did not achieve an intercept due to a clogged cooling pipe on the EKV, but did successfully test the integrated system of elements. The third test, on July 8, 2000, did not result in an intercept due an unsuccessful separation of the EKV and the booster rocket. The fourth test, on July 14, 2001, achieved a successful intercept of a ballistic missile target, as did tests on Dec. 3, 2001, and March 15, 2002. The successful test on Oct. 14, 2002 included the use of a ship-based SPY-1 radar for the first time to track a long-range target missile. The last four tests used all GMD system elements as part of an integrated flight test.

Government and industry program officials will conduct an extensive review of the test results to determine the reason(s) why EKV/booster separation did not occur, as well as a thorough analysis of all test-related data. Due to the vast amount of telemetry and other data collected during the test, it is likely to be at least several days until even a preliminary evaluation is completed.