Airborne Laser Completes Successful In-Flight First Firing of Laser Tracking System

Lt. General Henry A. “Trey” Obering, Missile Defense Agency director, announced today the successful completion March 15, 2007 of the first in-flight test of the laser targeting system for the Airborne Laser (ABL), a boost-phase missile defense system that is designed to use directed energy to destroy a ballistic missile in the “boost” phase of flight.

This important milestone involved multiple firings of the Tracking Illuminator Laser (TILL), mounted inside of the world’s most heavily modified Boeing 747-400 aircraft, to engage a missile-shaped target painted on the side of a KC-135 aircraft nicknamed “Big Crow,” and used as an aerial target for low-power laser flight testing. The TILL is a kilowatt-class solid-state laser that is intended to track a boosting ballistic missile and identify the most vulnerable location on the missile in preparation for the eventual firing of the High Energy Laser, which will use directed energy to burn through the rocket motor case of a hostile missile. This is the first open-air lasing in flight by ABL and marks a significant step towards achieving the program’s 2007 knowledge points.

The test was conducted off the coast of California. The ABL Beam Control System was able to engage the target aircraft and calculate the instantaneous range to the target during the engagement.

Data was also collected on atmospheric turbulence and aero-optics using one of “Big Crow’s” solid-state laser beacons in preparation to close the atmospheric compensation loop on a future flight.

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