Airborne Laser Demonstrates Full Weapon System Engagement Sequence in Flight

Lieutenant General Henry “Trey” Obering, Missile Defense Agency director, announced today that the Airborne Laser (ABL) program has accomplished another historic “first” on July 24, 2007 by propagating its Beacon Illuminator Laser (BILL) and using the return to compensate for atmospheric disturbances. This announcement comes on the heels of the program’s July 13 demonstration of an engagement sequence using a beacon from the target aircraft. This latest test, conducted on 24 July, demonstrates ABL’s ability to use both its illuminator lasers to track a simulated target, compensate for atmospheric disturbances, and to complete the engagement sequence by simultaneously propagating a surrogate high energy laser to the target. In addition, laser run times demonstrated in flight are of durations that are more than adequate to destroy ballistic missiles. This is a major step toward completing the second of the program’s two Low Power System Integration-Active Flight Test knowledge points, the first of which was accomplished earlier this month.

The successful engagement included detecting the Big Crow (modified NC-135) target board, tracking it with the Tracking Illuminator Laser (TILL), detecting and compensating for atmospheric distortions with the BILL’s return off the target, and engaging with the Surrogate High Energy Laser (SHEL).

ABL will continue its highly successful flight tests against the Big Crow airborne target to further characterize ABL’s performance before beginning installation of the advanced Chemical Oxygen-Iodine Laser (COIL) at Edwards Air Force Base later this summer.

The ABL will be the first combat aircraft relying entirely upon a directed energy device as a weapon. It is designed to use directed energy to destroy a ballistic missile target shortly after it is launched, in its "boost phase" of flight. When operational, the ABL will be an integral part of a layered Ballistic Missile Defense System.

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