Lockheed Martin-Built System Successfully Directs Laser Beam For Missile Defense Agency's Airborne Laser

Lockheed Martin announced today that the U.S. Missile Defense Agency's Airborne Laser (ABL) team has successfully fired the High Energy Laser through the Lockheed Martin-developed Beam Control/Fire Control system.

In a series of tests conducted in the aircraft on the ground, the Beam Control/Fire Control system focused and directed the High Energy Laser beam. The beam passed through the conformal window on the nose of the aircraft into a range simulator diagnostics system. Conducted at Edwards Air Force Base, Calif., this phase of testing concluded last week.

This milestone builds on the previous successful testing aboard the modified Boeing 747-400F aircraft of the Lockheed Martin-developed Beam Control/Fire Control System, as well as of the Northrop Grumman-developed High Energy Laser and the Boeing-developed Battle Management System. Boeing is ABL's prime contractor.

"This latest achievement is the result of the commitment of the entire ABL government-industry team to providing a new world-class capability for our nation's missile defense system," said Mark Johnson, ABL program director, Lockheed Martin Space Systems Company.

The team next will conduct further ground testing, followed by flight testing of the entire ABL system that will culminate in an airborne intercept test against a ballistic missile.

"As we approach this next historic milestone, the feeling of pride and excitement throughout the entire ABL team is palpable," said Doug Graham, vice president of advanced programs, Lockheed Martin Space Systems Company.

The Beam Control/Fire Control System locates and tracks the target, determines range to the target and then compensates for atmospheric turbulence. The system's lower-energy lasers -- the Track Illuminator Laser and the Beacon Illuminator Laser -- determine where to point and focus the High Energy Laser. The High Energy Laser beam passes through the system's optical path before exiting through the conformal window on the nose of the aircraft on its way to the target. Flight testing in 2007, using a surrogate High Energy Laser, verified the ability of the Beam Control/Fire Control System to maintain the focus of the laser beam while continuously tracking a target.

ABL will destroy a ballistic missile during its boost phase, while it is still accelerating in the Earth's atmosphere and before it can deploy its warheads. The Missile Defense Agency manages the ABL program, which is executed by the U.S. Air Force from Kirtland Air Force Base, Albuquerque, N.M. The Boeing Company provides the modified aircraft and the Battle Management System and is the overall systems integrator. Boeing's ABL industry partners are Northrop Grumman , which supplies the High Energy Laser and the Beacon Illuminator Laser, and Lockheed Martin Space Systems Company, Sunnyvale, Calif., which provides the Beam Control/Fire Control System, including the nose-mounted turret.

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. The company makes significant contributions to most major U.S. missile defense systems and participates in several global missile defense partnerships.

Headquartered in Bethesda, Md., Lockheed Martin is a global security company that employs about 140,000 people worldwide and is principally engaged in the research, design, development, manufacture, integration and sustainment of advanced technology systems, products and services.

Media Contact:

Lynn Fisher, 408-742-7606; e-mail lynn.m.fisher@lmco.com

First Call Analyst:
FCMN Contact:

SOURCE: Lockheed Martin

Web site: http://www.lockheedmartin.com/

https://news.lockheedmartin.com/2008-12-01-Lockheed-Martin-Built-System-Successfully-Directs-Laser-Beam-for-Missile-Defense-Agencys-Airborne-Laser