Lockheed Martin-Built System Aims Laser In Successful Lethal Demonstration Against Ballistic Missile Target

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Lockheed Martin announced today that the Beam Control/Fire Control system for the U.S. Missile Defense Agency's Airborne Laser Testbed (ALTB) successfully aimed the High Energy Laser beam in an experiment Feb. 11, in which a boosting ballistic missile target was destroyed.

In the lethal demonstration, the directed energy system aboard the modified Boeing 747-400F aircraft engaged and destroyed the threat-representative ballistic missile target shortly after it was launched from a sea-based platform in the Pacific Ocean.

The Lockheed Martin-developed Beam Control/Fire Control system focused and directed the beam generated by the Northrop Grumman-developed megawatt-class High Energy Laser, and the Battle Management System developed by Boeing, Airborne Laser Testbed prime contractor, managed the engagement.

"Shooting down a threat-representative ballistic missile target is the latest in a remarkable series of firsts that the government and industry team has achieved in demonstrating this leading-edge technology," said Doug Graham, advanced programs vice president, Lockheed Martin Space Systems Company. "This successful experiment validates the effectiveness of this revolutionary technology and makes it the most mature directed energy system in the world, opening the door to further new possibilities for the application of this technology."

"The Beam Control/Fire Control System has performed with outstanding results in the most demanding mission to date," said Mark Johnson, Airborne Laser Testbed program director, Lockheed Martin Space Systems Company. "The Beam Control/Fire Control System, which consists of a sophisticated suite of optics, low-energy lasers and software, has been rigorously tested in more than 140 flights since 2004, making technology history all along the way as a result the close partnership and dedication of the government and industry team."

The Beam Control/Fire Control System tracks the target, determines range to the target, compensates for atmospheric turbulence and focuses and directs the High Energy Laser beam. 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 an optical path before exiting through the conformal window on the nose of the aircraft on its way to the target.

The Missile Defense Agency manages the Airborne Laser Testbed (formerly known as the Airborne Laser (ABL)), 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 Airborne Laser Testbed 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.

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. The Corporation reported 2009 sales of $45.2 billion.

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