



Northrop Grumman-Built Laser Demonstrates Long-Duration, Lethal Lasing Onboard Airborne Laser Aircraft

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REDONDO BEACH, Calif., Feb. 19, 2009 (GLOBE NEWSWIRE) -- The high-energy laser built by Northrop Grumman Corporation (NYSE:NOC) successfully fired multiple long-duration blasts onboard the U.S. Missile Defense Agency's (MDA) Airborne Laser (ABL) during intensive ground tests concluded Feb. 12.

Lasting up to three seconds each, the lethal-power firings were conducted to 'tune' the megawatt-class laser by adjusting and balancing the mixture of chemicals that fuel its engine for peak operating efficiency. These settings can now be used for future testing, including the planned shoot down of a ballistic missile later this year.

"The hallmarks of these latest firings are durability and repeatability," noted Dan Wildt, vice president of Directed Energy Systems for Northrop Grumman's Aerospace Systems sector. "The duration of each firing of the megawatt-class laser was limited only by ground equipment."

Long-duration operations of the Chemical Oxygen Iodine Laser (COIL) followed 'first light' of the high-energy laser through ABL's onboard beam control / fire control (BC/FC) system in the aircraft's hangar at Edwards Air Force Base, Calif., in November 2008. They were conducted by MDA, ABL prime contractor The Boeing Company (NYSE:BA), and Northrop Grumman.

"Our highly experienced ABL workforce has done an outstanding job of reaching this critical point in ground testing," noted Guy Renard, Northrop Grumman's ABL program manager. "These dedicated employees have made huge technical strides toward providing our country with speed-of-light capability to destroy all classes of ballistic missiles in their boost phase of flight."

For long-duration laser operations, the megawatt-class laser was fired into a calorimeter onboard the aircraft. The calorimeter is a test instrument that captures and measures beam power. Each long-duration test provided the necessary data used to quickly evaluate and 'tune' the megawatt-class laser for peak operation.

The tuned high-power laser will be fired through the on-board BC / FC system into a range simulator to complete ABL's weapon system ground testing phase in the next few weeks, clearing the ABL system to begin weapon system flight tests.

The ABL aircraft consists of a modified Boeing 747-400F whose back half holds the high-energy laser, designed and built by Northrop Grumman. Before being installed, the high-energy laser completed rigorous ground testing in a laboratory at Edwards AFB. The aircraft's front half contains the beam control/fire control system, developed by Lockheed Martin (NYSE:LMT), and the battle management system, provided by Boeing.

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