Airborne Laser Achieves Weapon System 'First Light' by Firing Beam From Northrop Grumman-Built High-Energy Laser Through Beam Steering System

December 1, 2008

REDONDO BEACH, Calif., Dec 1, 2008 (GlobeNewswire via COMTEX News Network) -- The U.S. Missile Defense Agency (MDA) successfully operated the Airborne Laser's (ABL) complete weapon system for the first time last week by projecting a beam from the Northrop Grumman Corporation-built (NYSE:NOC) high-energy laser through the precision beam steering system.

During the ground test conducted by MDA and a Boeing-led industry team, a beam from the megawatt-class laser traveled the length of the aircraft at 670 million miles per hour, racing from the aft section that houses the laser, through the beam control / fire control (BC/FC) system, and out through the nose-mounted turret for the first time.

"The ground test proves that the ABL integrated weapon system works as planned," said Dan Wildt, vice president of Directed Energy Systems for the Northrop Grumman Space Technology sector. "This impressive achievement validates the safe operation of the high-energy laser in conjunction with all other components of the revolutionary directed energy ABL aircraft."

For the ground test, crews operating from onboard the aircraft at Edwards Air Force Base, Calif., completed a planned engagement sequence by firing the high-energy laser through the entire system. The beam then exited the aircraft and was captured by the Range Simulator Diagnostic System, which provides simulated targets as well as a "dump" and diagnostics for the laser beam.

Northrop Grumman, under contract to The Boeing Company (NYSE:BA), the ABL prime contractor, designed and built the high-energy Chemical Oxygen Iodine Laser, the most powerful laser ever developed for an airborne environment.

The BC/FC system, provided by Lockheed Martin (NYSE:LMT), not only ensures that the laser is accurately aligned and pointed at the target, but also performs fire control engagement sequencing, adjusts the beam for atmospheric compensation, and helps control jitter.

The ABL aircraft consists of a modified Boeing 747-400F whose back half holds the high-energy laser. Before being installed, the high-energy laser completed rigorous ground testing in a laboratory at Edwards AFB. The front half of the aircraft contains the battle management system, provided by Boeing, and the beam control/fire control system.

Northrop Grumman Corporation is a global defense and technology company whose 120,000 employees provide innovative systems, products, and solutions in information and services, electronics, aerospace and shipbuilding to government and commercial customers worldwide.

SOURCE: Northrop Grumman Corp.

Bob Bishop
Northrop Grumman Space Technology
310.812.5227
Cell: 310.251.0261
bob.j.bishop@ngc.com