

## **Boeing Airborne Laser Team Rolls Out Modified Aircraft and Prepares for Flight Tests**

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The Boeing Company [NYSE:BA], along with industry teammates and the U.S. Missile Defense Agency, rolled out the Airborne Laser (ABL) aircraft today from a modification facility in Wichita, Kan., during a ceremony marking major program achievements on several fronts.

Boeing presented the aircraft to a crowd of hundreds of government customers, industry partners and Boeing employees gathered at its Integrated Defense Systems facilities in Wichita.

The ceremony highlighted the following accomplishments:

- The Airborne Laser team in Wichita fully integrated the Lockheed Martin-designed beam control/fire control system inside the ABL aircraft, a modified Boeing 747-400F. Two solid-state illuminator lasers, which are part of the beam control device, and a surrogate high-energy laser were installed and fired repeatedly at a simulated ballistic missile target. The track illuminator laser is designed to track a target, while the beacon illuminator laser is intended to measure atmospheric turbulence that the high-energy chemical laser would encounter in its path to the target. During the ground tests, results from the illuminator firings were fed back to ABL, allowing the surrogate high-energy laser to shoot down a simulated target. The program achieved most of the objectives of the ground tests and expects to satisfy the remaining ones in the coming months.
- In Wichita, the team, including a Boeing-Northrop Grumman contingent on temporary assignment from Edwards Air Force Base, Calif., added floor reinforcements and chemical-fuel tanks to the back of the aircraft to prepare the jet for installation of the high-energy laser in 2007.
- The team, with ABL partner Northrop Grumman in the lead, completed a significant milestone for the high-energy laser. In California, Northrop Grumman finished ground-testing the optics that will shape the high-energy laser beam and direct it from the laser to the beam control/fire control system. The optics underwent inspection and refurbishment after the laser achieved lethal power and run-times in a ground laboratory in December 2005.

The team is preparing for another major activity later this year. The program will begin firing the illuminators in flight at an instrumented target board located on a missile-shaped image painted on a test aircraft. This activity will verify ABL's active tracking and atmospheric compensation capabilities.

"This rollout ceremony symbolizes many significant accomplishments," said Pat Shanahan, vice president and general manager of Boeing Missile Defense Systems. "The collective team has done a phenomenal job integrating the aircraft and demonstrating its capability in ground tests. Now we are ready to go fly. We are ready to demonstrate the aircraft's ability to close the fire control loop against a flying target. Once again, we made and demonstrated enormous progress toward ushering in a new age of technology, namely directed energy weapons."

Boeing is the prime contractor for ABL, which will provide a speed-of-light capability to destroy all classes of ballistic missiles in their boost phase of flight. Boeing provides the modified aircraft and the battle management system and is the overall systems integrator. ABL partners are Northrop Grumman, which supplies the high-energy laser and the beacon illuminator laser, and Lockheed Martin, which provides the nose-mounted turret in addition to the beam control/fire control system.

A unit of The Boeing Company, Boeing Integrated Defense Systems is one of the world's largest space and defense businesses. Headquartered in St. Louis, Boeing Integrated Defense Systems is a \$30.8 billion business. It provides network-centric system solutions to its global military, government, and commercial customers. It is a leading provider of intelligence, surveillance and reconnaissance systems; the world's largest military aircraft manufacturer; the world's largest satellite manufacturer; a foremost developer of advanced concepts and technologies; a leading provider of space-based communications; the primary systems integrator for U.S. missile defense; NASA's largest contractor; and a global leader in sustainment solutions and launch services.

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