Boeing Demonstrates Command and Control of ScanEagle UAS From Wedgetail AEW&C Aircraft

SEATTLE, April 06, 2009 -- Boeing [NYSE: BA] on March 16 successfully demonstrated simultaneous command and control of three ScanEagle unmanned aircraft systems (UAS) from a Royal Australian Air Force (RAAF) Wedgetail 737 Airborne Early Warning and Control (AEW&C) aircraft flying over Washington state.

Using the company's UAS battle-management software, airborne operators issued NATO-standard sensor and air-vehicle commands via a UHF satellite communication link and ground-station relay.

"Our standards-based UAS command/control system, which is based on commercial off-the-shelf architecture, allowed us to integrate UAS control into existing battle-management software," said Pierce Lutter, Boeing Associate Technical Fellow for Unmanned Vehicle Control Systems. "This would have been a major event even if we had accomplished it in a laboratory using surrogates, but we used currently fielded platforms and systems in a real-world setting to demonstrate a new level of command-and-control capability for warfighters."

Maureen Dougherty, Boeing vice president of the AEW&C program, added, "This network-centric capability substantially increases the operational versatility of Boeing's battle-management platforms and reduces the need for dedicated ground control of unmanned systems. It also demonstrates that our operational 737 AEW&C system is open and robust enough to allow integration of the future capabilities our customers require."

The three ScanEagles were launched from Boeing's Boardman Test Facility in eastern Oregon, approximately 120 miles (190 km) away from the airborne Wedgetail. Operators tasked them with area search, reconnaissance, point surveillance and targeting. They demonstrated extended sensing; persistent intelligence, surveillance and reconnaissance (ISR); and manned-unmanned teaming and sent back real-time video imagery of ground targets.

Boeing will conduct a follow-on demonstration of this capability for the Australian government in early May at RAAF Base Williamtown in New South Wales. A Wedgetail will take control of ScanEagles operated by Boeing Defence Australia personnel at Woomera Test Facility in South Australia, approximately 1,080 miles (1,730 km) from Base Williamtown.

A joint effort of Boeing and its wholly owned subsidiary, Insitu Inc., the long-endurance, fully autonomous ScanEagle UAS carries inertially stabilized electro-optical and infrared cameras that allow the operator to track both stationary and moving targets. Capable of flying above 16,000 feet and loitering over the battlefield for more than 24 hours, the four-foot-long (1.2 m) platform provides persistent low-altitude ISR.

The 737 AEW&C aircraft, based on the Boeing Next-Generation 737-700 commercial airplane, is designed to provide airborne battle-management capability with 10 state-of-the-art mission system consoles. Able to track airborne and maritime targets simultaneously using an advanced, multi-role electronically scanned array radar, the mission crew can direct high-performance fighter aircraft while continuously scanning the operational area.

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