

Boeing/Insitu ScanEagle Flight Demonstrates Real-time Radar Imaging Using NanoSAR

ST. LOUIS, June 10, 2008 -- The Boeing Company [NYSE: BA], in partnership with ImSAR and Insitu Inc., achieved a major milestone in May with the real-time processing of Synthetic Aperture Radar (SAR) data aboard a ScanEagle unmanned aircraft (UA) equipped with a standard inertially stabilized electro-optical (EO) camera. Combining the radar and the camera on the ScanEagle helps warfighters adapt to conditions with poor visibility. The tests marked the first time SAR and EO capabilities have flown together on such a small, lightweight platform.

During test flights on May 28, ScanEagle, outfitted with ImSAR's NanoSAR, flew over a variety of targets as real-time SAR processing was demonstrated with streaming radar images displayed on the ground station. Creating real-time images onboard ScanEagle eliminates the requirement of either processing imagery on the ground after flight or using high-speed data links to a ground station.

"This capability builds on our previous flight tests with the NanoSAR payload," said Carol Wilke, Boeing ScanEagle chief engineer. "With real-time streaming SAR imagery now available in the ScanEagle ground station, we can provide additional tactical, actionable intelligence to the warfighter.

"We expect to continue to mature this product in the coming months and hope to begin talking with potential customers in the near future," Wilke added.

"With NanoSAR, the unmanned aircraft system (UAS) can continue to provide real-time surveillance through smoke, fog, sand, snow, rain and darkness, augmenting EO capability and expanding the range of possible missions a small UAS can accomplish," said Adam Robertson, NanoSAR program manager for ImSAR.

The weights of standard SARs range from 50 to 200 pounds, but NanoSAR weighs 2 pounds and is the size of a shoebox. NanoSAR's image processor is fully integrated and self-contained, making synthetic aperture radar's ability to "see" in poor-visibility situations viable on small UAs for the first time.

Since 2004, the ScanEagle system has proven on a daily basis that it is the best-value solution to support warfighters in the field around the world. It has logged more than 80,000 combat flight hours with the U.S. Marines Expeditionary Force, the U.S. Navy and the Australian Defence Force in Iraq and Afghanistan. The Navy has logged more than 1,000 shipboard recoveries using ScanEagle.

ScanEagle, a joint effort of Boeing Advanced Systems' Advanced Precision Engagement & Mobility Systems and Insitu, was developed as a low-cost, long-endurance autonomous unmanned aircraft to provide persistent intelligence, surveillance and reconnaissance as well as flexible, rapid deployment for a variety of government and civilian applications.

Insitu, of Bingen, Wash., designs, develops and manufactures unmanned aircraft systems for commercial and military applications. Insitu created the first unmanned aircraft to fly across the Atlantic Ocean using 1.5 gallons of fuel in 1998. Insitu partnered with Boeing to develop, market and support ScanEagle operations. Visit www.insitu.com for more information. ImSAR LLC, located in Salem, Utah, combines the ability to mass-produce integrated high-radio-frequency designs with SAR processing expertise. ImSAR is the world leader in the development of lightweight Synthetic Aperture Radar for military and commercial applications. For more information, visit www.imsar.com.

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