

# Boeing to Test Sniper Fire Detection and Location Technology for U.S. Air Force

Boeing [NYSE: BA] has been awarded a U.S. Air Force contract for a Ground Situational Awareness Toolkit (GSAT) that integrates a ScanEagle unmanned aircraft system (UAS) with a ShotSpotter® gunfire detection and location technology system. The integrated solution is designed to provide additional force protection for military convoys and bases against sniper fire.

The Air Force's 820<sup>th</sup> Security Forces Group (SFG) at Moody Air Force Base (AFB), Ga., will conduct a four-month military utility assessment to validate ground detection and aerial location of sniper fire. If successful, the system could join Operation Iraqi Freedom.

"Our GSAT team is excited about this opportunity to provide GSAT to the Air Force," said Don Iverson, Boeing Air Force ScanEagle program manager. "We look forward to completing this task and deploying the system to support their efforts in Iraq."

During its 2005 debut at Camp Blanding, Fla., for the Air Force Unmanned Air Vehicle Battlelab, the GSAT system demonstrated how it could be used to support sniper shot detection and location missions.

The Air Force selected the ScanEagle and ShotSpotter systems for their demonstrated capabilities in ongoing government and civilian applications.

"GSAT/ScanEagle has the potential to increase our combat capability, protect the lives of our airmen and provide incredible situational awareness to our deployed security forces commanders," said U.S. Air Force Col. John R. Decknick, commander, 820<sup>th</sup> Security Forces Group. "The fielding of GSAT is a success story of how professional contractors, acquisition specialists, program managers and technical experts team with the warfighter and make an impact on the global war on terrorism. America's best and brightest are providing direct support to the fight, and GSAT is a shining example of their innovation."

Upon arrival at Moody and completion of system training, the 820<sup>th</sup> SFG will begin incorporating GSAT into the unit's ground training to evaluate the system while performing the various missions it may encounter when deployed. After the group concludes its evaluation of GSAT, the equipment will be matched with one of the unit's deploying squadrons that will conduct "first in" force-protection missions across the spectrum of peace and wartime military operations.

Col. Decknick credits the efforts by the Air Force acquisitions program at Wright-Patterson AFB, the Unmanned Aerial Vehicle Battlelab at Nellis AFB, the Force Protection Battlelab at Lackland AFB, and the Air Combat Command security forces and operations directorates at Langley AFB.

ScanEagle, developed by Boeing Advanced Systems' Advanced Precision Engagement and Mobility Systems, and Insitu, Inc., is a low-cost, long-endurance UAS that provides persistent intelligence, surveillance and reconnaissance as well as flexible, rapid deployment for a variety of applications, even in adverse weather.

ScanEagle is equipped with either an electro-optical or infrared camera. The camera's turret allows the operator to track stationary or moving targets without having to re-maneuver the vehicle.

The UAS is launched autonomously via a pneumatic wedge catapult launcher and flies pre-programmed or operator-initiated missions guided by GPS and an onboard flight control system. It is retrieved using Insitu's patented SkyHook™ system that uses a rope hanging from a 50-foot high boom to catch it.

ScanEagle is in service with the U.S. Navy and Marine Corps., and has logged more than 27,000 combat flight hours.

"I am glad to see the technology transfer from Camp Blanding to Moody, and we are hopeful that successful operations at Moody will lead to deployment to enhance security force protection," said Dave Sliwa, Insitu director of flight operations, Camp Blanding exercises.

ShotSpotter, Inc., develops systems and technologies that accurately detect and locate the origin of gunshots and weapons events. The company's gunshot location technology is based on sophisticated acoustic sensors that can detect muzzle blast and, depending on the circumstances, the sound of a projectile while it travels. The system also can differentiate between gunfire and false events such as a car backfire.

ShotSpotter sensors are ground-based, personnel wearable and vehicle mounted. In the GSAT application, the system can provide ScanEagle the coordinates of a shot's origin to enable the vehicle to point its camera at that location.

"Imagine a battlefield where whenever the enemy fires any kind of weapon you know within seconds exactly where the shooter is and can cue an airborne platform camera to put the shooter on TV," said Maj. Gen. (Ret.) Steve Siegfried, vice chairman for ShotSpotter, Inc. "This kind of situational awareness has never existed on any battlefield. When troops on the ground have this

kind of instant information with support from ScanEagle, they have an advantage no other warfighters have ever had."

ShotSpotter systems are used by public safety agencies across the United States and are deployed in homeland security and military applications.

ShotSpotter, Inc. ([www.shotspotter.com](http://www.shotspotter.com)), the leading developer of gunshot location systems and technology, is based in Santa Clara, Calif. ShotSpotter's flagship product, which detects gunfire across large urban areas using a small number of inexpensive and easy-to-deploy sensors, currently protects the citizens of cities nationwide, from Los Angeles to Charleston, SC. Its products recently assisted the FBI and the Franklin County Sheriff's Office in identifying and capturing the Columbus, Ohio highway sniper suspect. In 2000, ShotSpotter was honored for its technology vision and leadership when it won the Computerworld Smithsonian Laureate Award, having been nominated by William H. Gates, chairman and chief software architect of Microsoft Corporation, and the Smithsonian added its technology to the museum's permanent collection. With technology covered by numerous patents, the company also offers products to the law enforcement, homeland security and military markets. ShotSpotter technology has consistently produced arrests and weapons confiscations nationwide and has helped reduce gunfire and crime rates in cities that deploy it.

Insitu, located in Bingen, Wash., develops Unmanned Aerial Systems (UAS) for commercial and military applications. Insitu introduced the first Unmanned Aerial Vehicle (UAV) to cross the Atlantic Ocean and has partnered with Boeing to develop ScanEagle and Fugro Airborne Surveys to develop GeoRanger. For more information about the company, see [www.insitu.com](http://www.insitu.com). 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 and Department of Homeland Security; NASA's largest contractor; and a global leader in sustainment solutions and launch services.

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