



Backgrounder

Insitu
118 East Columbia River Way
Bingen, Washington 98605
www.insitu.com

Insitu, Inc.

Description

Insitu, Inc. is a pioneer leader in the design, development, production and operation of high-performance, low-cost unmanned aircraft systems (UAS) for intelligence, surveillance and reconnaissance (ISR). Insitu UAS are deployed with the global defense community including the United States, Australian, and Canadian militaries, and are used for scientific and emergency response efforts worldwide.

Insitu's family of unmanned aircraft includes ScanEagle[®], developed in partnership with Boeing; NightEagle[™], bringing daylight-quality imaging to night operations with cooled mid-wave infrared technology; and Integrator[™], providing plug-and-play payload interfaces that allow customers to integrate their own payloads seamlessly into a world-class UAS. The patented SkyHook[®] retrieval system uses an anchored rope suspended from a manlift, eliminating the need for a runway retrieval and allowing rapid deployment and mobility from both land and sea. With a SkyHook retrieval, the aircraft is flown toward the rope. One of the hooks on each of the wings of the aircraft catches the rope, arresting flight.

These operationally mature low-altitude, long-endurance, modular aircraft systems feature a small operational footprint, interoperable launch and recovery systems, common ground control stations, and gasoline or heavy fuel configurations. Insitu systems are proven over land and at sea, in both civilian and defense operations.

Practical applications of the technology include military reconnaissance, the creation of internet networks in remote areas, border patrol, coastal monitoring, anti-sniper efforts, environmental monitoring, search and rescue, disaster relief, and other missions that are dull or dangerous for human pilots.

Background

In 2002, Insitu partnered with The Boeing Company to develop the ScanEagle UAS. The needs of coalition forces drove numerous system advancements and operational improvements to bring the ScanEagle UAS to the warfighter in Afghanistan and Iraq. Since 2004, coalition forces in the Middle East have used the ScanEagle UAS to collect actionable ISR services with 99 percent availability, collected 24/7 in the harsh and fast-paced operating environments of land and sea combat.

In 2004, Insitu partnered with Fugro Airborne Surveys to develop GeoRanger[™] based on ScanEagle's predecessor, Seascan. GeoRanger carries a magnetometer for geomagnetic survey applications and a satellite communication system with beyond-line-of-site capability for expansive surveys.

In 2008, Insitu became a wholly owned, independent operating subsidiary of The Boeing Company, Integrated Defense Systems, Military Aircraft Division.

Insitu was founded in 1994 to design unmanned aircraft systems for offshore weather reconnaissance. Engineering development of the miniature robotic aircraft Aerosonde® was funded by the U.S. Office of Naval Research. Insitu licensed the Aerosonde core technology to Sencon Environmental Systems Pty. Ltd. (now Environmental Systems and Services Pty. Ltd. / ES&S), and collaborated with ES&S and the Australian Bureau of Meteorology to develop the Aerosonde UA. The collaboration culminated in the Aerosonde's 1998 crossing of the Atlantic – the first in UA history.

Insitu prides itself on maintaining the agile and innovative problem-solving capabilities that have marked its short, but brilliant, history even as it grows to an 800-plus-employee, multi-facility operation.

History

2011

As part of Operation Unified Protector, Insitu's ScanEagle is operated organically aboard USS Mahan (DDG-72), performing cooperatively with a host of U.S. and NATO Forces in their mission to protect civilians and reduce the flow of arms to Libya. ScanEagle is credited with locating a host of contacts of interest due to its ability to capture superior image quality and to operate covertly at relatively low altitudes.

The U.S. Marine Corps purchases two variants of Insitu's Integrator UAS to provide pre-deployment training at 29 Palms, Calif. This early operational capability (EOC) option is exercised under the Navy/Marine Corps Small Tactical Unmanned Aircraft System (STUAS) development contract awarded to Insitu in 2010. *(August)*

Insitu Introduces Inceptor Small Unmanned Aircraft System, a rotorcraft system which will provide the public safety market with real-time video and stable, high-resolution imagery. *(August)*

ScanEagle achieves 500,000 combat flight hours faster than any other small tactical UAS. *(July)*

In support of education, Insitu becomes founding partner of the Association of Unmanned Vehicle Systems International (AUVSI) Foundation. *(June)*

Insitu Pacific achieves 25,000 operational flight hours of ScanEagle UAS services with the Australian Army in Afghanistan. *(June)*

Naval Air Systems Command (NAVAIR) awards \$83.7 million contract to Insitu to provide the U.S. Navy with operations and maintenance services in support of government-owned ScanEagle UAS. *(May)*

Insitu donates historic ScanEagle unmanned aircraft to Canada Aviation and Space Museum. The aircraft flew 2,000 flight hours supporting the missions of Canadian and allied forces before it was retired in April, 2010. *(May)*

ScanEagle achieves 25,000 combat flight hours in support of Canadian Forces in Iraq and Afghanistan. *(May)*

Boeing names Steve Morrow Insitu President and CEO. *(April)*

Insitu completes three-day system requirements review conducted by the U.S. Navy for STUAS. The review provides a solid reference point for program execution. *(February)*

STUAS Integrator completes first operational assessment, flying mission scenarios designed to assess operational suitability of the current Integrator UAS. *(February)*

2010

Aerospace Futures Alliance of Washington names Insitu *Outstanding Aerospace Company of the Year* at the 2010 Governor's Aerospace Summit. *(October)*

Poland becomes Insitu's first European customer. The \$7.2 million contract allows for Insitu to deliver 10 ScanEagle UAS to Poland over the next 12 months. *(September)*

Full control of the ScanEagle UAS by an airborne command and control (C2) platform—a NATO Airborne Warning and Control System (AWACS) aircraft—is demonstrated by Boeing during an operational scenario at Empire Challenge 2010. *(July-August)*

U.S. Naval Air Warfare Center Aircraft Division awards a \$43.7 million contract to Insitu to begin full-scale development of the Integrator UAV. *(July)*

U.S. Air Force Academy selects Insitu's ScanEagle UAS to train cadets. *(June)*

Federal Aviation Administration's William J. Hughes Technical Center and the New Jersey Air National Guard sign a cooperative research and development agreement (CRDA) with Insitu to study UASs and to address their integration into the national airspace system. Insitu donates two ScanEagle unmanned aircraft and associated ground equipment as part of the CRDA. *(June)*

ScanEagle logs 17,000 combat flight hours with Canadian Forces *(May)*

ScanEagle logs 300,000 combat flight hours. *(April)*

U.S. Northern Command conducts an earthquake training exercise at the University of Alaska's Poker Flat Research Range that uses ScanEagle to conduct damage assessment and aid in relief efforts. *(April)*

Interoperability between the U.S. Army's One System Remote Video Terminal (OSRVT) and ScanEagle video with metadata is successfully demonstrated in conjunction with the Joint Systems Integration Laboratory (JSIL). It is the first UAS demonstration at Fort Rucker in six years. *(March)*

Aerial flood plain surveillance of the Red River along the North Dakota/Minnesota border is conducted by Insitu, with University of North Dakota, using the

ScanEagle UAS. The effort, which includes an FAA certificate of authorization (COA) to operate, is part of research into the effectiveness of using unmanned aircraft in U.S. airspace. After successful initial operations, the COA expiration date was extended from May 31, 2010 to March 8, 2011. *(March)*

Synthetic-aperture radar (SAR) is integrated onto ScanEagle. The first SAR payload integrated onto a Group 2 aircraft—NanoSAR—provides high-resolution imagery that can penetrate adverse weather conditions, battlefield obscurants, camouflage and light foliage, allowing radar-enabled area searches over land and sea. *(February)*

Electronic fuel-injection (EFI) on the heavy fuel engine-equipped ScanEagle and Integrator unmanned aircraft is successfully flight-tested. EFI provides overall system performance improvements, especially in extreme temperatures and at high altitudes, including mountainous terrain. *(January)*

2009

Insitu demonstrates improved operations security with advanced encryption standard (AES) capable digital data link on Integrator UAS. The encrypted data link is made available as an option on all Insitu UAS. *(December)*

Insitu demonstrates one launch and recovery system for family of unmanned aircraft to support all Insitu UA-Integrator, ScanEagle and NightEagle-reducing the overall operational footprint in challenging terrain. *(December)*

Insitu develops an integrated learning environment in collaboration with Corsair Engineering. The integrated learning environment complies with military training standards (MIL STD 29612) and is geared to fully prepare operators and maintainers for the challenges of in-theatre missions. *(November)*

Integrator successfully demonstrates single-channel ground-to-air radio system (SINCGARS) capabilities. *(October)*

ScanEagle wins the 2nd annual *C⁴ISR Journal* top award in the platform category. *(October)*

Insitu provides the University of North Dakota with the ScanEagle UAS for use in the nation's first program offering a Bachelor of Science in aeronautics UASs operations. *(October)*

Insitu delivers 1,000th ScanEagle. *(July)*

Boeing wins \$250 million special operations contract for ScanEagle ISR services *(June)*

Insitu opens office in Queensland, Australia to serve Asia-Pacific region. *(June)*

Insitu completes Integrator flight demonstrations as part of the competition for the small tactical unmanned aircraft system (STUAS / Tier II) contract by the United States Government. *(June)*

NOAA's Fisheries Service uses ScanEagle imagery to estimate the abundance and distribution of ice seals at the southern edge of the Bering Sea. *(May)*

ScanEagle contributes to the rescue of a ship captain held hostage. *(April)*
Government of Canada awards Insitu a contract to provide small unmanned aerial vehicle services to support the Canadian Forces. *(April)*
ScanEagle performs anti-piracy patrol off Somalia that results in the capture of nine suspected pirates. *(February)*

2008

Warfighters prove Naval Expeditionary Overwatch collaboration is a success. *(December)*
Boeing completes acquisition of Insitu. *(September)*
U.S. Navy awards Boeing \$65 million contract for surveillance. *(June)*
Insitu launches new subsidiary in Australia. *(May)*
Insitu achieves ScanEagle service milestones for U.S. Marine Corps and U.S. Navy. *(April)*
ScanEagle flies with heavy fuel in Iraq. *(April)*
ScanEagle achieves 10,000 flight hours in support of Australian Army operations in Iraq and Afghanistan. *(February)*

2007

Washington CEO magazine names Insitu's Steve Sliwa "CEO of the Year". *(December)*
ScanEagle becomes the first UA to operate from a U.S. Navy destroyer. *(November)*
Insitu ranks as the 4th fastest growing company in Washington State on Deloitte & Touche's "Fast 50" list. *(October)*
Insitu ranks as the 87th fastest growing company *Inc.* magazine's "Fast 5,000" list. *(September)*
ScanEagle logs 700 shipboard recoveries and 50,000 flight hours with the U.S. Navy. *(September)*
Insitu unveils the new Integrator UAS. *(August)*
U.S. Marine Corps awards Boeing a contract to extend ScanEagle services. *(July)*
Boeing Australia Limited wins AUD \$20 million contract to provide ScanEagle ISR services to the Australian Army in Afghanistan. *(June)*
ScanEagle logs 1,000 flight hours in support of the Australian Army in Iraq. *(April)*
Department of Homeland Security awards Insitu Safety Act Certification for ScanEagle. *(March)*

ScanEagle achieves compliance with the NATO UAV Interoperability Standard (STANAG 4586). *(February)*

Insitu breaks a new endurance barrier with its heavy-fuel engine equipped ScanEagle. The new configuration flies for 28 hours and 44 minutes using JP5 heavy fuel. *(January)*

Boeing Australia Limited announces a contract award to provide ScanEagle ISR services to the Australian Army. *(January)*

2006

Insitu ranks as the 30th fastest growing company in North America on Deloitte & Touche's technology "Fast 500" list. *(October)*

Insitu takes first place in the Pacific-Northwest's fastest growing technology companies in Deloitte & Touche's technology "Fast 50" list. *(October)*

Steven M. Sliwa, President and CEO of Insitu, is named as a finalist for the Ernst & Young *Entrepreneur of the Year*[®] award for the Pacific-Northwest region. *(May)*

Insitu Inc. secures Series C financing from Battery Ventures. *(May)*

ScanEagle surpasses 10,000 combat flight hours in less than two years. *(February)*

2005

Insitu ranks as the 10th fastest growing technology company in Washington State on Deloitte & Touche's "Fast 50" list. *(October)*

Insitu ranks as the 169th fastest growing technology company in the nation on Deloitte & Touche's "Fast 500" list. *(October)*

U.S. Marine Corps awards an additional 12 months of ScanEagle service in Iraq. *(July)*

2004

ScanEagle deploys to Iraq with the U.S. Marine Corps First Marine Expeditionary Force. *(July)*

ScanEagle participates in *Forward Look III* exercise at Cherry Point, NC with Shadow and Predator. *(June)*

Insitu completes first autonomous flight on moving ship with perfect launch and recovery by ScanEagle's predecessor, SeaScan. *(April)*

ScanEagle achieves an altitude of over 19,300 feet. *(March)*

Insitu and Fugro™ partner for GeoRanger development. *(January)*

2003

ScanEagle demonstrates communications relay with enhanced position locating and reporting system (EPLRS). *(November)*

ScanEagles demonstrate ability to fly together, or swarm. (*August*)
Insitu participates in joint military exercise *Giant Shadow*. (*January*)

2002

Insitu and Boeing partner for ScanEagle development. (*March*)

2001

SeaScan prototype is developed for the commercial fishing industry.

Wedge pneumatic catapult is developed and patented.

SkyHook is developed and patented.

Gyro-stabilized video system is developed.

1999

1,000 flight hours are achieved with Aerosonde. (*June*)

1998

Joint Insitu/ Environmental Systems and Services Pty. Ltd. (ES&S) program ends.

First Atlantic crossing by a UA accomplished by Aerosonde Laima. (*August*)

1995

Insitu licenses the Aerosonde core technology to Sencon Environmental Systems Pty. Ltd. (SES Pty Ltd.; now ES&S) and joins a program with ES&S and the BOM for joint development.

1994

Insitu incorporates as The Insitu Group, Inc. in Bingen, Washington by Tad McGeer and Andy von Flotow. (*May*)

Contact:

Insitu, Inc.
118 East Columbia River Way
Bingen, WA 98605

509.493.6858
contactus@insitu.com