



THE VIEW FROM ABOVE

INSITU CREATES MILESTONES IN UAS TECHNOLOGY

In 1996, the Department of Defense (DoD) issued a Small Business Innovation Research (SBIR) call for proposals focused on developing an unmanned air vehicle (UAV) for environmental monitoring and weather sensing. The call was answered by Washington State-based Insitu Group. Along with industry and university partners, Insitu used the SBIR contract to develop and launch the first UAV to ever cross the Atlan-





Among the many beneficial applications for the UAV technology developed by Insitu, wildland firefighting is one of the most conspicuous, as seen in this photo from Oregon's 2017 Eagle Creek Fire.

tic Ocean. This record-breaking achievement left them well-positioned to help fulfill future DoD requests.

In addition to the monitoring aspect, the technology that came from that initial SBIR had one other key advantage: The ability to quickly and easily revise and improve upon it. "We would design, build, test, and then redesign, build, test—a rapid iteration loop—and that was really important," said Steve Sliwa, Insitu's CEO from 2001 to 2008.

Insitu was meeting the DoD's requirements but then September 11, 2001, changed the focus of the country and of the company. Insitu pivoted to military applications, securing a joint-technology development contract with the nearby Boeing Company. Venture capital followed, and in 2004 the company deployed its ScanEagle (a direct descendant of Seascan, which was born from the original SBIR) with the U.S. Marine Corps. According to Sliwa, the head of operations at the Second Battle of Fallujah in Iraq told him that he would have had 30 percent more casualties if they hadn't deployed ScanEagle.

After a few years of working jointly on contracts, The Boeing Company acquired Insitu in



2008, and it became an independent subsidiary.

Insitu now provides the ScanEagle or UAV flight hours with its other unmanned aerial systems (UAS) to most branches of the military and 20 foreign countries, as well as to the commercial sector.

Current CEO Ryan Hartman attributes Insitu's military sales to the company's technological advances in payload, imagery enhancement, and dissemination techniques that "enable our customers to make even more informed decisions that protect and save lives."

Today, Insitu is experiencing growing demand for the surveillance capabilities of its UAS in the commercial sector. A large part of Insitu's commercial footprint is in providing ScanEagle flight hours. It is helping customers detect and monitor oil spills, ensure safe railways, fight wildfires, monitor marine mammal populations, pinpoint seafaring drug smuggling operations, and provide search and rescue.

Sliwa went on to add that the company wouldn't have survived without the SBIRs. "And the technology that we delivered during that time was the foundation for growing the company," he said. 🌸

Insitu Group, Inc. (Boeing Defense, Space & Security)

Modernization Priority: Autonomy

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