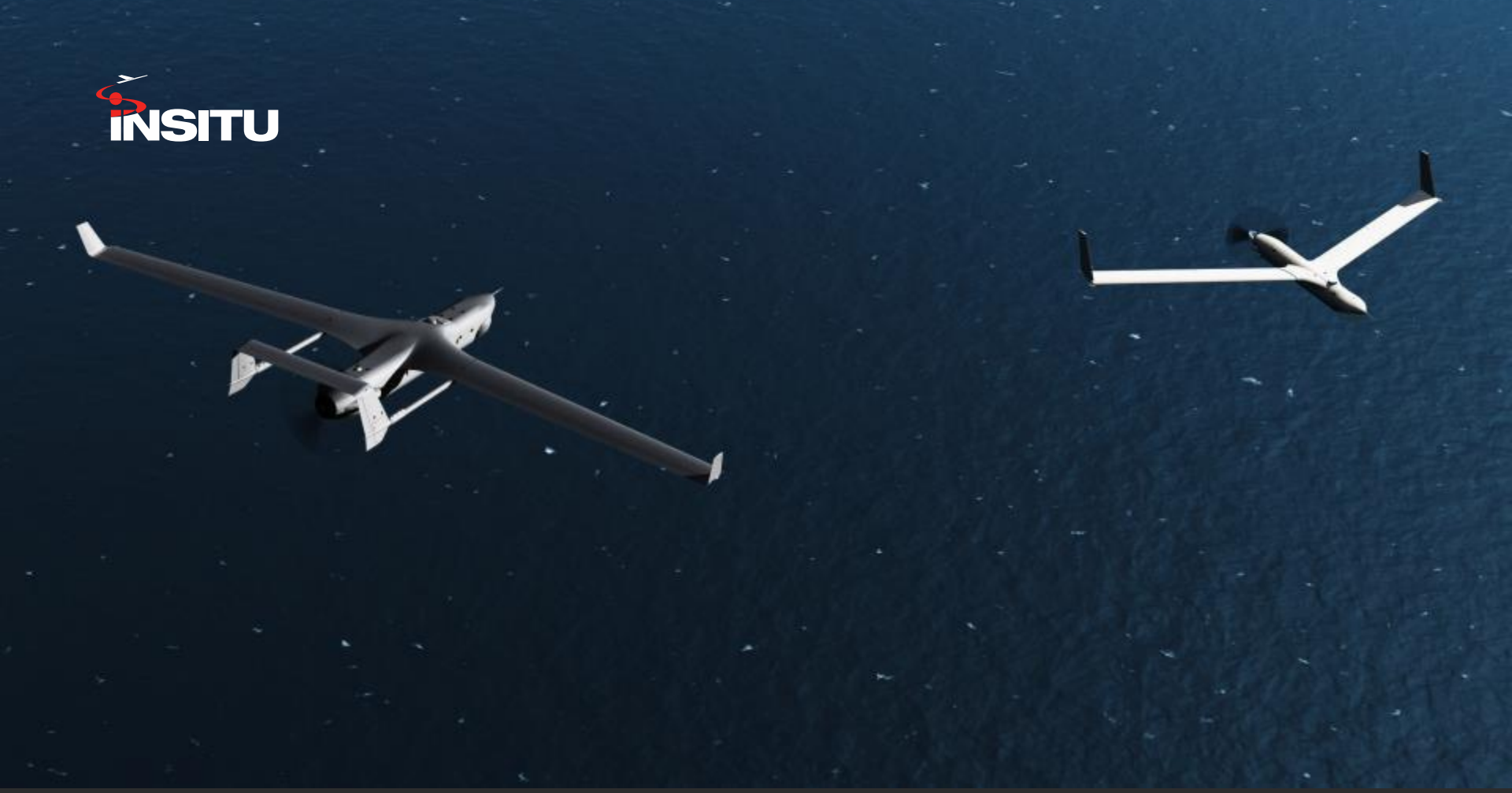


Insitu Overview

Decision-making superiority delivered.

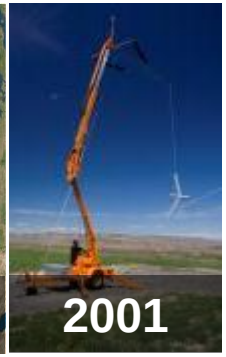
Agenda

- Company Overview
- Products and Services
- Discussion

Insitu Timeline

1998

Insitu UAV becomes first to cross the Atlantic



2001

Gyro-stabilized turret & Skyhook retriever developed & patented

2002

Insitu enters strategic alliance with The Boeing Company

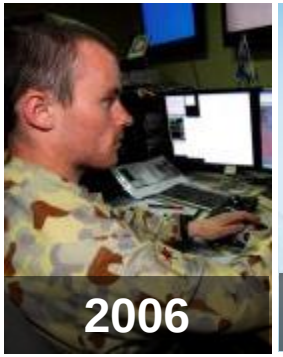
2004

ScanEagle deploys with USMC

2005

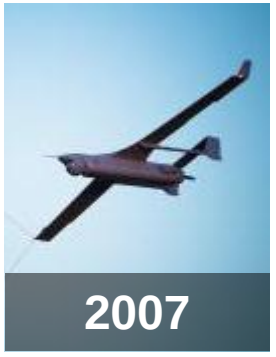
Insitu deploys with US Navy

USAF acquires ScanEagle systems



2006

ScanEagle deploys with Australian Defence Force



2007

Insitu launches Integrator™ UAS

2008

Insitu acquired by The Boeing Company

2009

200,000 flight hours with ScanEagle

2010

Insitu wins STUAS Program of Record

2011

STUAS Integrator completes its first operational assessment

2012

STUAS Early Operational Capability and First Flight

2013

ScanEagle accumulates 700,000 combat flight hours

2014

RQ-21A Blackjack deployed to Afghanistan

Insitu Snapshot

Customers:

- U.S. Marine Corps
- U.S. Navy
- U.S. Army
- USAF, DoD Customers
- Australia
- Canada
- Italy
- Netherlands
- Malaysia
- Singapore
- United Kingdom
- Poland
- Colombia
- Japan

815,000 Operational Flight Hours

101,000 Operational Sorties

38,500 Shipboard Flight Hours

5,000 Shipboard Sorties

Insitu is a wholly owned non-integrated subsidiary of The Boeing Company

Products & Services

ScanEagle®

Integrator™

ICOMC2

Training

Field Operations

Payloads Directorate

ScanEagle®

Weights

Empty structure weight: 30.9-39 lb / 14-18 kg
Max takeoff weight: 48.5 lb / 22.0 kg
Max payload weight: 7.5 lb / 3.4 kg

Payload Integration

Onboard power: 60 W

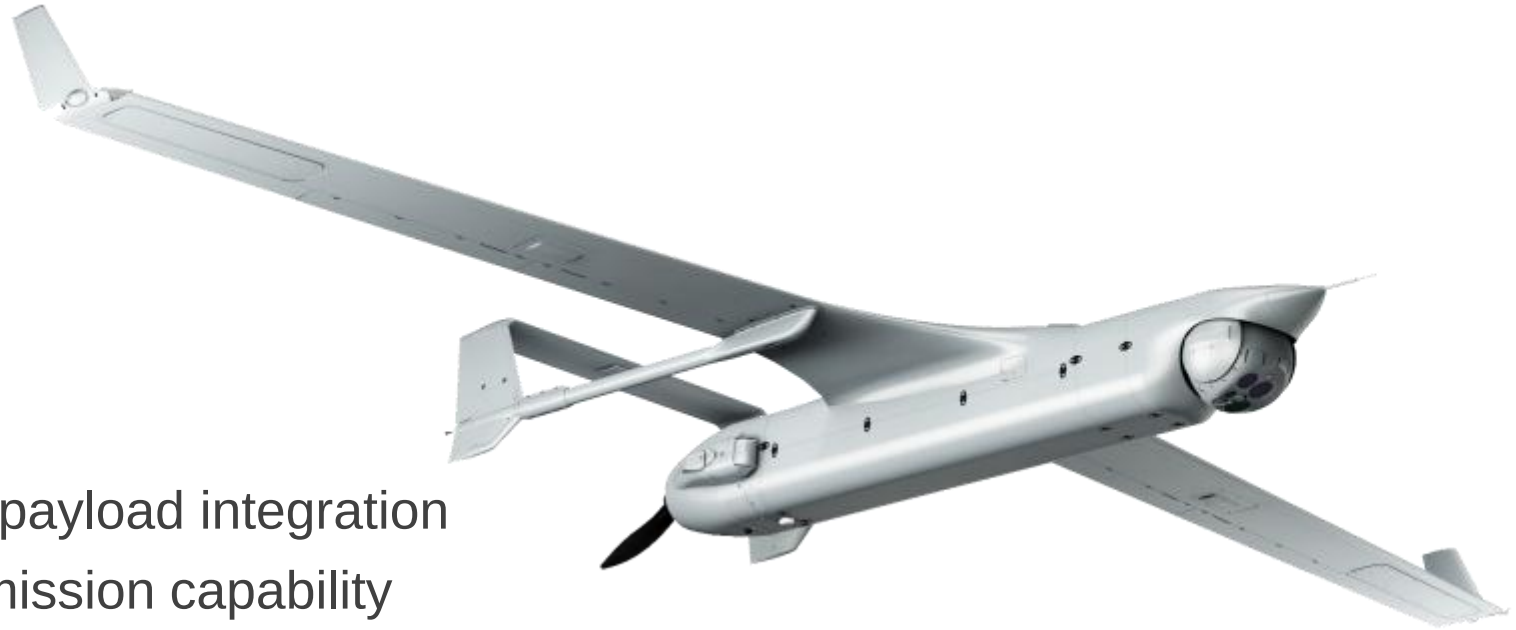
Performance

Endurance: 24+ hours
Ceiling: 19,500 ft / 5,950 m
Max horizontal speed: 80 knots / 41 m/s
Cruise speed: 50-60 knots / 25.7-30.9 m/s
Engine: heavy fuel or gasoline engine

Sensor and Data Options

- EO imager
- Analog or digital encrypted video datalink
- Encrypted or unencrypted C2 datalink

Integrator™



Rapid payload integration

Multi-mission capability

Weights

Empty structure weight:	80 lb / 34.0 kg
Max takeoff Weight:	135 lb / 61.2 kg
Max payload weight:	40 lb / 18 kg

Performance

Endurance:	24 hours
Ceiling:	19,500ft / 5,944 m
Max horizontal speed:	90+ knots / 41 m/s
Cruise speed:	55 knots / 28.3 m/s

Payload Integration

Onboard power: 350 W

Onboard connectivity

Baseline Sensor and Data Package

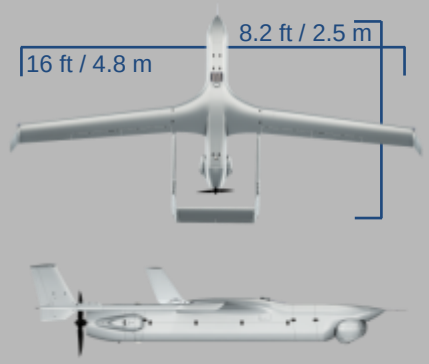
-Electro-optic imager

-Mid-wave infrared imager (MWIR)

-IR marker

-Laser rangefinder

-Encrypted S-band video data



Insitu Regional Overview

Cumulative payroll (2009 – 2014)	$479,039,379
Suppliers located in WA	287 (active)
Suppliers located in OR	391 (active)
Cumulative supplier spending in WA (2009 – 2014)	$392,590,626
Cumulative supplier spending in OR (2009 – 2014)	$504,593,812

Oregon Statistics

2014 YTD Spend Analysis (through 12/21/2014)		
State	**$ PAID**	**%**
Oregon	**$ 112,040,270**	**50% ***
Counties		
Clackamas	$ 36,091,326	32.2% **
Hood River	$ 47,470,371	42.4%**
Josephine	$ 393,458	0.4% **
Multnomah	$ 3,853,061	3.4% **
Wasco	$ 90,016	0.1%**
Washington	$ 5,635,397	5.0% **
Yamhill	$ 18,378,916	16.4% **

** Percentage of Total Spend*
*** Percent of Spend w/in State*

Socioeconomic Diversity within Oregon		
Small	$ 74,214,680	66.2% **
HUB Zone	$ 393,458	0.35% **
SDB	$ 225,006	0.2% **
SDVET	$ 0.00	0.0% **
VOSB	$ 64,025	0.1% **
WOSB	$ 5,393,281	4.8% **

(Small) Small Businesses
(VOSB) Veteran Owned Small Businesses
(WOSB) Woman Owned Small Businesses
(SDVET) Service Disabled Small Business
(HUBZone) Historically Underutilized Business Zones
(SDB) Small Disadvantaged Businesses

Washington Statistics

2014 YTD Spend Analysis (through 12/21/2014)		
State	**$ PAID**	**%**
Washington	**$ 34,805,167**	**32.54% ***
Counties		
Klickitat	$ 12,254,506	35.2% **
Skamania	$ 358,337	1.0% **

Socioeconomic Diversity of Suppliers		
Small	$ 67,845,750	85.36% **
HUBZone	$ 42,373	0.05% **
SDB	$ 0.00	0.0% **
SDVET	$ 3,046,174	3.83% **
VOSB	$ 6,461,168	8.13% **
WOSB	$ 4,382,345	5.51% **

** Percentage of Total Spend*
*** Percent of Spend w/in State*

(Small) Small Businesses
(VOSB) Veteran Owned Small Businesses
(WOSB) Woman Owned Small Businesses
(SDVET) Service Disabled Veteran Owned Small Business
(HUBZone) Historically Underutilized Business Zones
(SDB) Small Disadvantaged Businesses

Regional Challenges (1 of 2)

- Lack of “Starter Homes” and apartments for our employees
- Employment opportunities for Spouses
- Aging Transportation Infrastructure
  - Hood River-White Salmon Interstate Bridge was built in 1924
  - Bridge of the Gods in Cascade Locks opened in 1926
- These bridges are vital to the region’s transportation network and health of the economy (3.7 million trips annually across the HR-WS bridge)
- Both aging metal bridges are functionally obsolete and nearing the end of their useful life (ex. Sufficiency rating for the HR-WS bridge is 12.5 out of 100)
- Other deficiencies: narrow travel lanes, lack of pedestrian and bicycle facilities, low load carrying capacity, substandard river channel span, and vulnerability to a seismic event
- Both bridges are maintained by local Port Authorities
- Neither State’s Department of Transportation is officially part of the bi-state Commission for Long-range Planning for Interstate Bridges

Regional Challenges (2 of 2)

Recent Hood River Bridge History:

- 1999: SR-35 Columbia River Crossing Feasibility Study conducted
- 2004: Full feasibility study conducted and a draft Environmental Impact Statement (DEIS) completed, identifying a replacement bridge just west of the existing bridge as the preliminary preferred alternative
- 2011: Type, Size and Location Study (TS&L) completed recommending a preferred replacement bridge type
- Late 2011: MOU created to recognize work to date and pledging that parties would work cooperatively for the replacement of the Hood River Bridge
    - Oregon and Washington Departments of Transportation did not sign

Without some kind of aggressive steps, these bridges won't be replaced before our grandchildren become drivers

- Federal dollars most likely required
- "Fast Track" scenario is 12-15 years

Request your help addressing the future of the Hood River Bridge with the Port of Hood River and the other OR/WA stakeholders

The Potential UAS Commercial / Civil Market

Snapshot*

- 4000 different systems / platforms world wide
- Total economic impact in first 3 years of integration: $13.6B
- Worldwide forecast for 2015-2025: $82.1B
- 70,000 New jobs in the first 3 years of integration

Potential Applications:

- Fire Fighting
- Search and Rescue
- Law Enforcement
- National Resource Management
- Precision Agriculture/Ranching

- Post Disaster Management
- Emergency Communications Relay
- Pollution Control/Assessment
- Traffic Managing
- Border Patrol
- Harbor/Coastal Patrol
- Utility Surveillance
- Pipeline Surveillance

Police Helicopter Imagery

ScanEagle Imagery

* Source: AUVSI UAS Economic Impact Study 2013

Central Oregon Community College (COCC)

- Central Oregon Community Aviation Program has been training prospective Airplane, Helicopter, (and now UAS Operators) for ten years.
- The current student population in COCC Aviation Degrees is approximately **200**. (40%- Airplane, 50%- Helicopter, 10%- UAS)
- Student demographic: men & women, 18-58 years old (most students fall into an age range of 24-32); 80% of the students are veterans.
- 80% students come from out-of-state (not typical of most Community College programs).
- COCC contracts for flight services but owns 3 simulators which help fund program development/ improvements.
- COCC boasts a 80% retention rate after the first year, with a 70% completion rate.
- Approximately 50% of our graduates find employment <u>locally</u>.
- The COCC Aviation Program generates over **$4M** annually. Over **95%** of that $4M goes directly into the local economy (transportation, living expenses, recreation…)

CENTRAL OREGON
community college

Current Insitu Commercial/Civil Work

Our goal: Accelerate development of commercial opportunities for Insitu products and services

- Arctic Shield participation with Federal, State, Tribal ,and commercial entities summer 2015
- Customs & Border Patrol Demos
- WA Wildfire support this summer
- Increased operations with UND
- Increased operations with Central Oregon Community College

Work in Alaska will open the door to further NAS integration

Challenges remain to operate in the National Airspace (NAS) and Insitu is working with federal authorities to address:

- Regulatory
- Technical
- Public Perception

WA State Wildfire Support

Effort with WA State - UAS wildfire support for one fire season

Recently perform proscribed burn in Spring before FAA with great success

Could extend coverage to Oregon in 2015 through an emergency COA

- Emergency Management Assistance Compact extends to all 50 states

Insitu Perspective

- Insitu supports the development and advancement of UAS technology in a safe and responsible manner, without infringing on an individual's right to privacy.
- Unmanned Air Systems are capable of saving time, saving money, and saving lives.
- Unmanned Aircraft Systems (UAS) increase human potential by doing dangerous or difficult tasks safely and efficiently.
- Oregon has the capability to support UAS industry growth, and possesses unique geographic qualities and people that make Oregon a prime location for the UAS industry growth in the coming years

Thank You