

# Report to the Oregon Joint Committee on Ways and Means

## Subcommittee on Transportation and Economic Development

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Executive Director,  
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## SOAR Oregon Mission

The development, promotion, expansion and support of the Unmanned Aerial Systems (UAS) industry in the State of Oregon; the UAS industry is broadly defined to include any and all related or supporting industries and technologies that would help support development of UAS

# SOAR Staff

<b>Chuck Allen</b>	Executive Director
<b>John Stevens</b>	Chief Operations Officer
<b>Scott Kinney</b>	Business Development and Mktg Manager
<b>Aileen Lennon</b>	Media and Business Development Associate



# SOAR Board of Directors\*

## Executive Committee

- Craig Ladkin                      President
- Ross Hoag                         Vice President
- Collins Hemingway             Treasurer, Secretary

## Membership

- Cindy Sagers
- Mitch Swecker
- Ann Schmierer
- Annette Kolodzie
- Nigel Ballard
- Mark Jones
- Roger Lee
- Jessica Metta
- Michael Short

\* See Attachment 6 in report



# Market Overview

- \$13.6B Within First Three Years of Integration
- \$82.1B Within First Ten Years of Integration
- 104,000 New Jobs Within First Ten Years of Integration
  
- Oregon Expectations to 2025
  - \$486MM in Revenue
  - \$2.5 in Taxes
  - 615 New Jobs

Source: AUVSI UAS Economic Impact Report,  
2013



# A Brief History of SOAR

- Application to Oregon InC to Create SOAR and Jumpstart Industry Growth in State (2012)
- UAF Proposal to FAA Supporting Test Sites (2013)
- SOAR Established to Represent Oregon Test Ranges (2013)
- FAA Designates Six UAS Test Sites (Dec. 2013)



# Test Sites / Test Ranges

- *Public Aircraft Operations* as Primary Flight Authorization
- FAA Begins Issuing *Section 333 Exemptions* (late 2014)

# Range Outlook

- **Resources & Environment to Develop and Test UAS and Related Products**
  - Confidential, safe test environment
  - Professional aviation staff for test oversight
- **FAA is Increasing Range Authorizations (very slowly)**
  - Use of FAA designees (DARs) to issue Experimental Airworthiness Certificates
  - National Test Site COAs = expedited flight approval for sUAS
  - Addition of Test Site-approved sUAS to any approved Test Site COA



# Biennium Review

**2013 – 2015**



# 2013 – 2015 SOW Review

- **Provide Matching Grants to Six Industry-Funded Projects**
  - Six awardees, better than 3:1 match
- **Create/Retain 50 Jobs in UAS-Affiliated Industries**
  - Skyward and Honeycomb added more than 40 jobs
  - Others such as Paradigm, continue to hire
  - 18 333 Exemptions issued in Oregon (As of Feb 2016 = 48)
- **Leverage \$1.3MM in Federal or Private Funds**
  - NW UAV alone spent more than \$1.5MM on its project
  - Pendleton test range - \$200,000
  - Warm Springs range - \$200,000



# 2013 – 2015 SOW Review

- **Establish Two Additional Public Organizations Capable of Sponsoring UAS Flights**
  - In addition to Pendleton and was designed to get flights in the air
- **Complete Flights at all Three Test Ranges**
  - Partially due to difficulties working through PPUTRC. Tillamook used their own resources.



# 2013 – 2015 SOW Review

- **Monitor Test Ranges' Certificates of Waiver or Authorization (COA) Activity**
  - Pendleton had 4 approved and 6 in FAA review
  - Warm Springs had 5 approved and 4 in draft
  - Tillamook had 0 approved and 0 in process

# 2013 – 2015 Budget vs. Actuals

## 2013-2015 Biennium

<b>EXPENSES</b>			
<b>New Business Development Expenses</b>	<b>Budget</b>	<b>Actual</b>	<b>Difference</b>
Personnel	210,000	201,248	8,752
Travel & Meals	25,000	33,479	(8,479)
Website, surveys (TBD), maintain	15,000	25,293	(10,293)
Event Expense	5,000	21,545	(16,545)
<b>Partnership Dev'mt. &amp; UAS Projects</b>			
Grants Given	453,500	154,000	299,500
Expense Other Than Grants Given		(20,050)	20,050
<b>Infrastructure Capital (Other than for Specific Projects)</b>			
<b>UAS Test Ranges</b>	120,000	120,000	
Other			
<b>Business Overhead</b>			
Contract Expenses	30,000	25,688	4,312
Office Rent & Telecommunications	1,500	1,662	(162)
Supplies & Materials	2,000	3,754	(1,754)
Equipment Lease & Maintenance		-	
Conferences & Tradeshow	10,000	3,000	7,000
Business Insurance	10,000	4,841	5,159
Legal, Accounting, Misc.	5,000	2,457	2,543
<b>Total</b>	<b>887,000</b>		
<b>GRAND TOTAL</b>	<b>887,000</b>	<b>576,916</b>	<b>310,084</b>

# Biennium Review

**2015 – 2017**



# 2015 – 2017 Measures and Targets Review

- Jobs: Create or Retain 20 FTE's at Ranges or Companies Funded by SOAR
- Revenue: Produce \$250K at the Ranges Within 12 Months of Funding and \$300k-\$500k in Subsequent 12 Months
- Follow-on Funding: Range Match 1:1, Overall Grants to Companies at 3 or 4:1



- Defines Funding to Oregon Ranges and the Basis for Funding
- Defines Range Support Elements Incorporated in the Range MOA
- Supports Potential Increase in Demand for Test Range Use



# SOW Review: Grants & Business Development

- **Partnerships and Projects**

- Benefit Oregon UAS firms and Test Ranges
- Bring new firms to Oregon
- Develop a statewide awareness of UAS capabilities, to foster a culture that is conversant and capable of using and developing UAS technologies (outreach).



# SOW Review: Oregon UAS Marketing Program

- **Oregon UAS Comprehensive Marketing Program**
  - Test Range marketing support
  - Website and social media
  - Unique brand identity for Oregon UAS industry



# SOW Review: Industry Stakeholder Collaboration

- Promote UAS Legislative Agenda at State and Federal Level
- Develop Fee-for-Services Model and Membership Program
- Collaborate with Educational Entities
  - Expand and develop UAS programs to grow labor pool
- Engage Other Public Agencies



# Test Range Support Activities

- Finalized and Signed Pendleton Range Labor Grant and MOA
- Final Review with Warm Springs and Near Space (Tillamook)
  - Provided tailored MOA and agreement bullet points
  - Awaiting feedback

# Test Range Support Activities

- **Warm Springs**
  - Oriented two new contractor Range Managers in past six months
- **Pendleton**
  - Supported Range owner during reduced contractor support, and turnover of contractor personnel
- **Developed Feasibility and Probability Plan for Three Key Customer Prospects at Pendleton and Two at Warm Springs**
- **Ongoing Support for FAA/PPUTRCC Flight Approvals at Pendleton, Warm Springs**

# Test Range Support Activities

- **Provided Direct Support and Leadership for Refinement of PPUTRC (Oregon Ranges) Procedures**
  - PPUTRC General Operations Manual
  - PPUTRC (UAF/Ranges) Range Approval Statement of Work
  - PPUTRC Public Aircraft Operations (PAO) Lease
  - PPUTRC Non-Disclosure Agreement (NDA)
- **Continued Direct Support for Development of new PPUTRC Flight Authorization Procedures**
  - Expedited National Test Site COAs procedure

# Operational Support Documentation Activities

- **Developed Other References in Support of SOAR Mission**
  - Test Range Labor Position Descriptions in support of Range Labor Support grant requirements
  - Range-specific Business and Operational Measures and Targets for monitoring and reporting Test Range performance
  - Memorandum of Agreement (MOA) Between SOAR and Ranges to define roles and responsibilities



# Warm Springs: Business Development & Mktg.

- **Ongoing Support**

- Review and inventory of existing range resources
- Outlined value proposition and product offerings
- Identified immediate marketing and business development focus
  - Keep staff abreast of current UAS industry environment
  - Develop Warm Springs marketing collateral
  - Position Warm Springs as Wildland Firefighting Research & Development Center





# Pendleton: Business Development & Marketing

- **On-going Support**

- Multiple on-site meetings with Range Manager
- Review and inventory of existing range resources
- Outlined value proposition and product offerings
- Identified immediate marketing and business development focus
  - Positioning of Pendleton as Precision Agriculture Research & Development Center
  - Coordination with stakeholders and potential research partners; USDA, OSU, WSU, ODA, WSDA



# Business Development Activities

- **Precision Farming Expo**

- Presented Pendleton Range offerings to UAS manufacturers, aerial service providers and end-users of technology
- Presented SOAR's role in developing Oregon UAS industry
- Met with potential agency partners
- Created framework for regional UAS users' group, led by USDA/NRCS
- Planned future Pendleton UAS industry event with USDA/NRCS Pendleton
  - Bring end users, aerial service providers, and manufacturers to Pendleton for real-world technology and data analysis demonstrations
- Established two qualified leads for customer operations at Pendleton;
  - Flight testing and assembly of sUAS at nearby industrial park
  - Flight testing of agriculture-specific sensor



# Business Development Activities

- **Meeting with Yamaha Motor Ventures**
  - Held at Governor's Office
  - Public-private partnership to develop a Precision Agriculture Research & Development Center at Pendleton
  - May result in Yamaha's Pacific NW UAS operations, including the Yamaha r-Max, being based at Pendleton



# Legislative Activities

- **State Legislative UAS Working Group**
  - Participated directly, provided Range representation in Oregon Legislative Working Group
- **Federal Legislative Agenda**
  - Drafted 2016 FAA Reauthorization Bill input to Senator Wyden, Rep. DeFazio



# Education Activities Community Colleges

- **Support to Oregon Community College UAS Programs**
  - Brief faculty and student on FAA and regulatory considerations
  - Quarterly briefings to Central Oregon Community College
  - Assistance to Blue Mountain Community College's Precision Agriculture program



# Education Activities

## STEM and CTE

- **Developing Middle/High School UAS STEM and CTE Programs**
  - Preliminary meeting with District 509-J (Jefferson County) Superintendent
    - Integration of UAS into CTE and STEM programs at Madras HS, Warm Springs Academy
    - Develop model programs which can be replicated across Oregon
  - Integrating STEM and CTE programs with Community College UAS programs



# SOAR Budget

Range Labor Funding	\$ 1,100,000
Grants to Industry & Education	\$ 670,344
Staff Salaries at SOAR (4 FTEs)	\$ 751,456
Marketing/Outreach Activities	\$ 317,000
<u>Administrative Overhead</u>	<u>\$ 161,200</u>
<b>Total</b>	<b>\$ 3,000,000</b>

