

Idaho Unmanned Aircraft Systems (UAS) Situational Awareness Workshop

BOISE, IDAHO

JUNE 5TH, 2019



*Pacific NorthWest
Economic Region*



@PNWER @C_RDR

Overview

- Administrative Announcements
- Safety briefing
- Focus of today's meeting – Building relationships, sharing information and exploring interdependencies.
- Special Thanks

Agenda

The Objectives and Goals of Today's Symposium

Scott Stokes, Chief Deputy Director, ID Transportation Department

Brad Richy, Director, ID Office of Emergency Management

9:30 am Public Sector UAS Operational Concepts and Uses

Moderator: Ross Engle- ID Transp. Department, Aeronautics, Flight Ops Director

David Barker- ID Public Safety UAS Council, Idaho Falls Police Department

Ed Gygli- ID State Police Fusion Center, ID Criminal Intelligence Center

Mark Bathrick- US Department of Interior

10:15 am Private Sector UAS Operational Concepts and Uses

Moderator: Douglas Spotted Eagle, Sundance Media Group

Matthew Harris- Idaho Power, IT Business System Development Leader

Dan Milovanovic- Union Pacific Rail, Senior Special Agent Hazmat– Portland Division,

Union Pacific Railroad Police Department

Agenda

10:45 am Break and Networking

11:00 am Current Federal Regulatory Overview and Updates on Future Possibilities of Drone/UAS Policy.

Moderators: Ross Engle and Neal Murphy Idaho Transportation Department

Ken Kelley- FAA, Airworthiness FPM/POC and UAS Educational Outreach

Bryan Norton- City of Boise Attorney on state and local regulations

Chris Corwin- Blaine County Disaster Services Coordinator

12:00 pm Break and pick up boxed lunches

12:15 pm Keynote Speaker: Robert Blair, Three Canyon Consulting

Overview of how UAS technology and privacy issues have developed, the intersections of public and private sector needs and uses, and futurist perspectives for UAS opportunities.

Agenda

1:15 pm Concept of Operations (CONOPS) and Common Operating Procedures: Discussion on current process to access a disaster zone to assess damage using UAVs. Identifying Gaps and Challenges.

Discussion facilitators: Brad Richy (IOEM), David Barker (Idaho Public Safety UAS Council), Brandon Hardenbrook (Pacific NorthWest Economic Region)

1:45 pm Discussion on Systems for facilitating information recording, storage and sharing of damage inspection information.

2:15 pm Next Steps and Timeline: Neal Murphy (ITD) & Brad Richy (IOEM)

Agenda

3:00-5:00 pm UAS Demonstrations at Quinn's Pond parking lot. We will walk 10 minutes from the hotel north of the Boise River.

[Sundance Media Group](#) - Douglas Spotted Eagle

Aerial Vehicle Operation Center [A.V.O.C.](#)

[Rapid Aerial LLC](#) and [Empire Unmanned](#) - Matt Roderick

[RapidXC](#) – Quito Saez, Brody Escalera of RapidXC, and Charles McNeel, Department of Defense and Idaho State University.

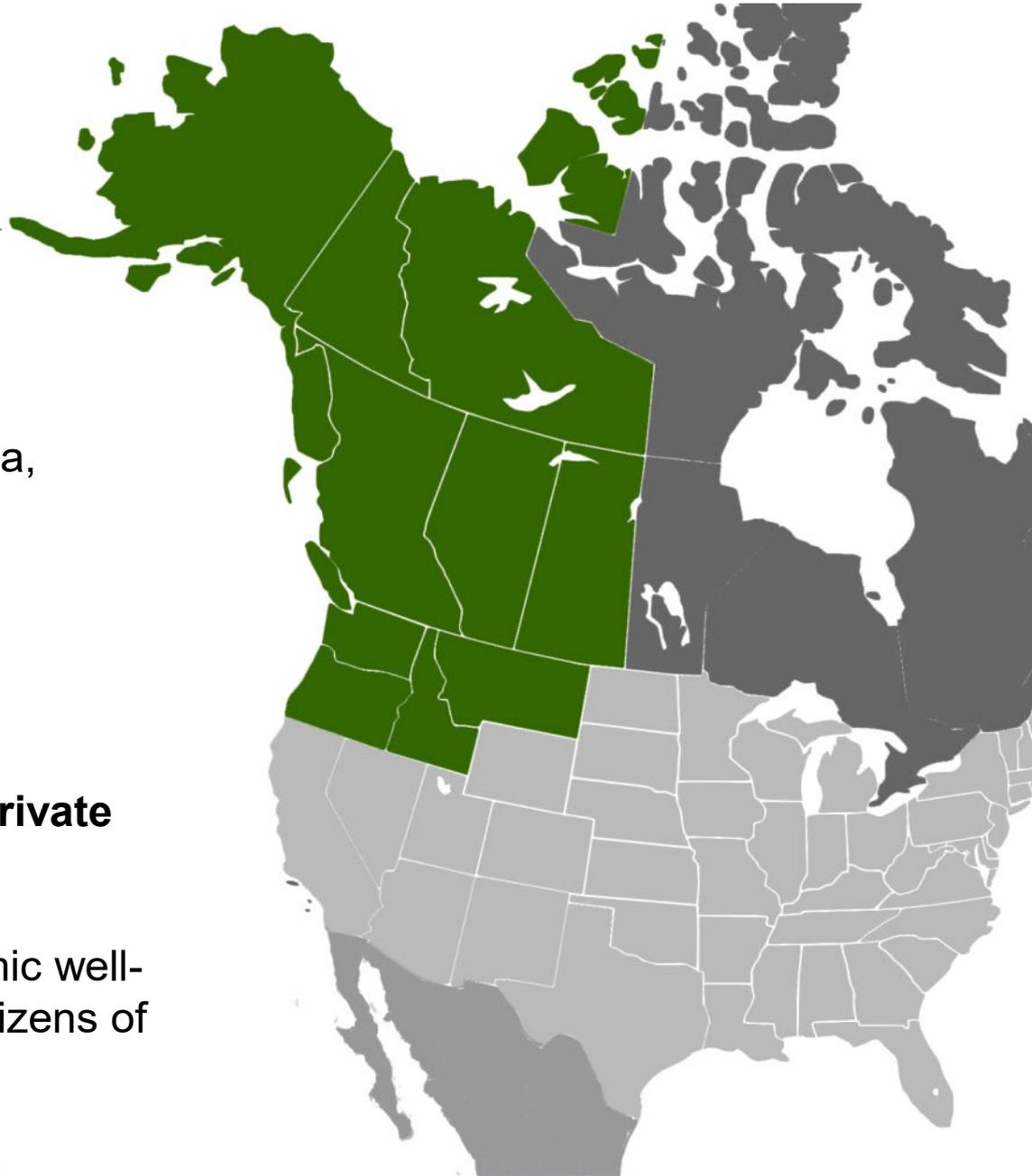


Pacific NorthWest Economic Region

PNWER is a statutory, public-private partnership chartered in 1991 by the U.S. States of Alaska, Washington, Idaho, Montana, Oregon and the Canadian Provinces of British Columbia, Alberta, Saskatchewan, Yukon and Northwest Territories.

Leadership: Legislators and private sector from each jurisdiction.

Mission: To increase the economic well-being and quality of life for all citizens of the region.



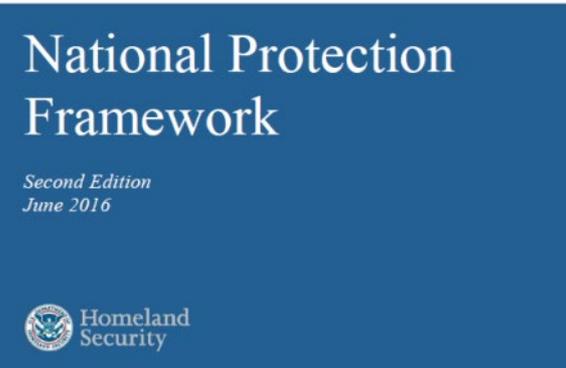
PNWER Center for Regional Disaster Resilience (CRDR)



PNWER formed the Center 2001 with the goal of improving the Pacific Northwest's ability to withstand, recover and to protect its critical infrastructures from all-hazards disasters.



DHS Sec. Kelly met with PNWER in 2017 to discuss regional resilience issues



PNWER is referenced in the National Protection Framework as the model for bringing the public and private sectors together to address critical infrastructure protection issues.
– June 2016

2018-19 CRDR ACTIVITIES

- 17 workshops, summits, webinars, and exercises
- 1500 participants from the northwest and across the U.S. and Canada
- Cybersecurity
- Drones
- Critical Infrastructure Protection
- Earthquake Preparedness
- Election Security
- Wildfire Response
- Long-term Power Outage



5TH ANNUAL IDAHO CYBERSECURITY INTERDEPENDENCIES SUMMIT

April 2019

300+ participants from the public and private sector across Idaho

- Development of cyber incident response plans
- Emerging cyber threats
- Identifying cross-sector interdependencies
- Communication and collaboration to build cyber resilience
- Building a diverse IT workforce



Opportunity to collaborate with legislators and private sector



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Visit us at www.pnwer.org,
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Resilience Challenge Grants

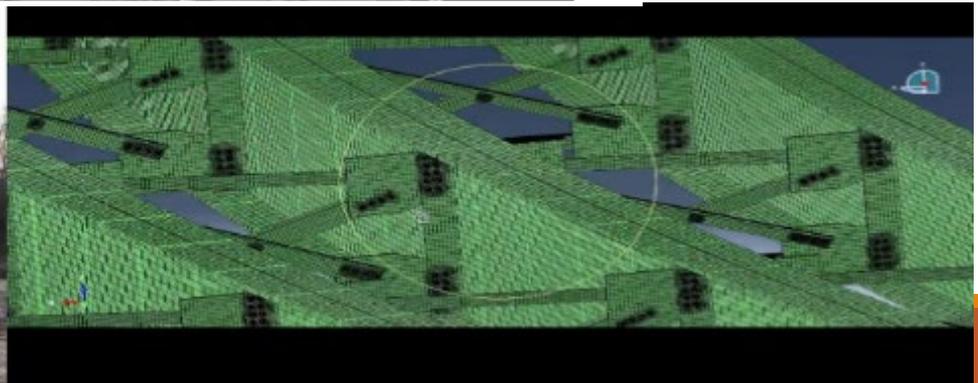
PNWER was awarded 2018 and 2019 DHS National Infrastructure Protection Plan (NIPP) Security and Resilience Challenge grants for critical infrastructure.

UAS Inspections of Critical Infrastructure 2018 Resilience Challenge Grant

(a) examples of the still image



(b) reconstructed 3D scene and camera poses



UAS Resources - bit.ly/dronecrdr

Webinar: How to Establish a Drone Program

Video Interview: How is the Media Using Drones?

Drone Handbook for Public Agencies

Users Group

Survey Inventory

Past workshops:

- UAS applications for local government
- Technical workshop on critical inspections



UAS Survey

bit.ly/IDdronesurvey

WA Survey

+60 PARTICIPANTS

Public & private sector: fire and rescue, ports, public works, emergency management, transportation, higher education, vendors

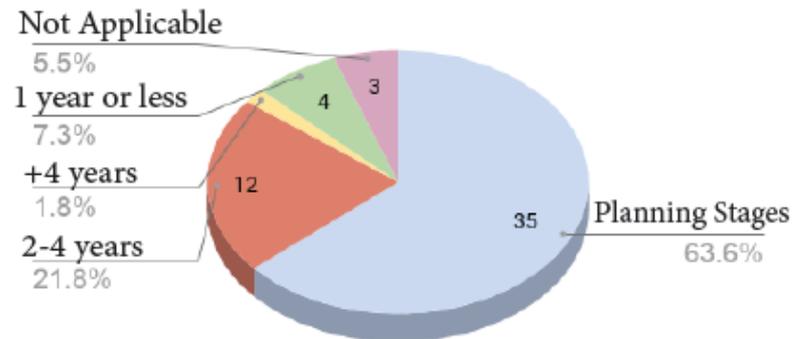
COMMON USAGE

- 50% Critical technical inspections
- 34% Search and rescue
- 32% Law enforcement
- 15% Fire response
- 13% Natural resources management

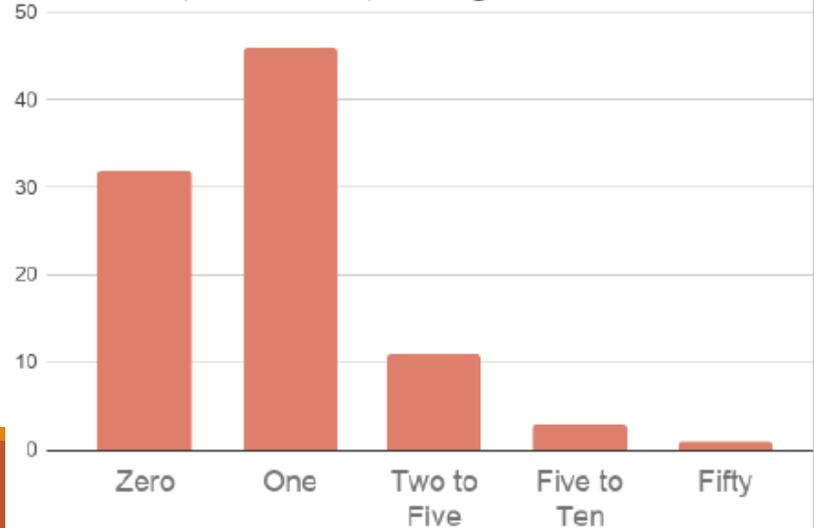
STATUS OF POLICY

- 45% Policy in place
- 35% No policy in place
- 15% Policy in development

How long has your organization employed UAS?



How many units does your organization own?

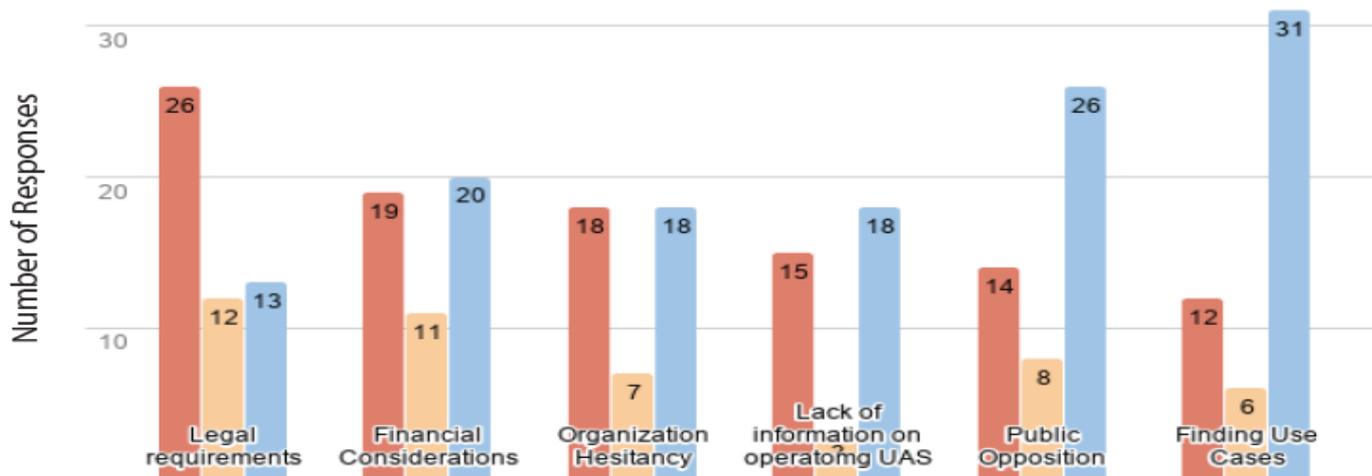


UAS Survey

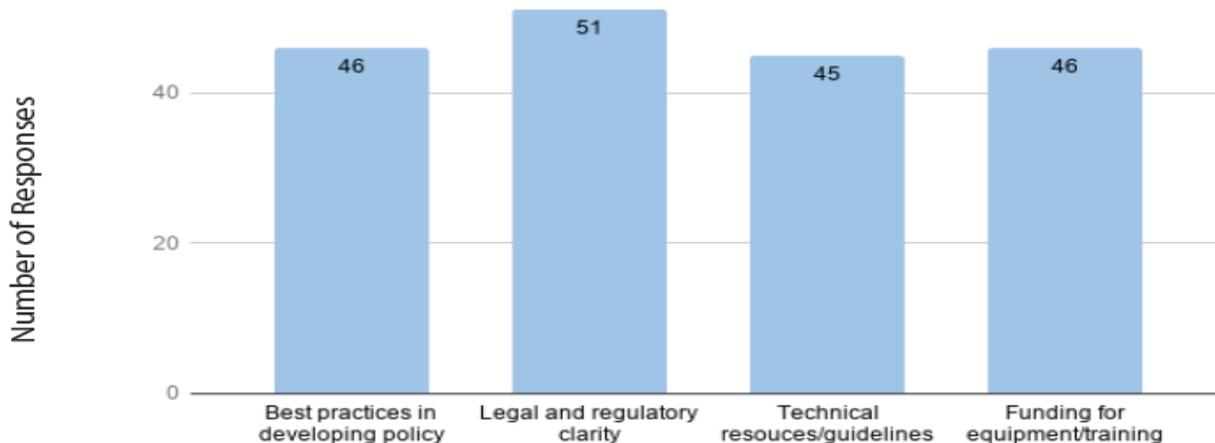
bit.ly/IDdronesurvey

What have been the greatest challenges in establishing and maintaining a UAS program?

Very important or important Somewhat Important Little importance or not important



What resources would be useful to greater employ UAS?



UAS Users Groups

Forum for the sharing of information between participating personnel and organizations.

Users Groups for WA, OR, ID, and MT

Public/Private, critical infrastructure owners & operators (utilities, transportation, natural resources) law enforcement, emergency managers

Join: bit.ly/Iddronesurvey

**See Green Evaluation Form
For details.**



Critical Infrastructure Situational Awareness Project 2019

The Gap

86% of the nation's critical infrastructure is owned and operated by the private sector. There is a need for rapid damage assessment of these critical infrastructures immediately following a disaster. Emerging drone technology is allowing for an expedited and detailed damage assessment of infrastructures by owners and operators.

Private sector needs access to disaster zones to conduct damage assessments and then be able to share information rapidly with state emergency management agencies so that a common operating picture can be established.



Project Overview

Explore development of plans & mechanisms for the collection & exchange of damage information.

Information will assist infrastructure owners and the public sector to obtain faster situational awareness on the status of their infrastructures & other interdependent infrastructures.

Explore how information will be transmitted to state EOCs and used to create a common operational map that can be shared.

Project Overview Continued

States: Idaho, Montana, Oregon, and Washington.

Establish a working group of interested public and private sector infrastructure owners and operators within each state.

Public-private stakeholder led workshop for each of the four states.

The outcome of the workshop will be the initial formation of operational concepts that may be incorporated into a CONOPS for that state.

Concept of Operations (CONOPS)

- CONOPS for access into disaster zones & info sharing
- Use existing state access control methodologies or develop a simplified process so that drones can be used to gather damage assessment info.
- Specify the communications channels and data file type for transmission.
- Conduct a drill utilizing the established process for a private CI owner to obtain access to a disaster zone, fly a simulated damaged area with a UAS, & transmit simulated disaster damage information to the state Emergency Operations Center (EOC). (Washington drill scheduled for Sept.)
- Drill will be open to observers from other infrastructures & state emergency management officials.
- Long-term goal is to demonstrate this UAS to EOC situational awareness feed at scale in real-time during the 2022 Cascadia Rising II.

Montana, Oregon Workshops in Development

Oregon Workshop
June 26th
8:00am to 1:00 pm
Portland, OR

Montana Workshop - September

Establish a users group of public and private sector UAS customers, consultants, owners and operators, manufacturers

Share uses, needs, experiences, and questions as we learn together about the latest federal and regional updates from private sector, government, and academic experts.

Register: regionalresilience.org

UAS/DRONE

Unmanned Aircraft Systems: Public and Private Sector Use, Networking, and Future Needs



Introductions



Thank you for attending!

UAS Survey & Drone Users Group
bit.ly/IDdronesurvey

Contact:

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Table Discussion: UAS Adoption and Data Sharing

- **Has your organization started a UAS plan/program? What resources are useful to setting up a UAS program for beginners? Recommendation for how to go about setting up a program.**
- **What are Barriers to UAS adoption: Privacy issues? Resource sharing? Joint training? Setting protocols? Funding? Public negative perception? How to overcome them?**
- **Describe current local disaster zone access protocols for your jurisdiction.**
- **Can prioritized critical infrastructure be pre-identified for quick access? How to apply for a waiver from FAA?**
- **Methods of obtaining situational awareness of infrastructure?**
- **Data Format and Transmission Issues to Consider when sharing info?**
- **What UAS applications would be valuable to your organization?**

Thank you for attending!

UAS Survey & Users Group
bit.ly/IDdronesurvey

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