Idaho Unmanned Aircraft Systems (UAS) Situational Awareness Workshop

BOISE, IDAHO

JUNE 5TH, 2019
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.

**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

Contact:

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Visit us at www.pnwer.org,
www.regionalresilience.org, join our mailing list or follow us at @PNWER or @C_RDR
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
UAS Survey
[bit.ly/1Ddronesurvey](bit.ly/1Ddronesurvey)

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

- **Very important or important**
- **Somewhat Important**
- **Little importance or not important**

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Very Important or Important</th>
<th>Somewhat Important</th>
<th>Little Importance or Not Important</th>
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<tbody>
<tr>
<td>Legal requirements</td>
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<td>Organization Hesitancy</td>
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<td>Lack of information on operating UAS</td>
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<td>Public Opposition</td>
<td>14</td>
<td>12</td>
<td>8</td>
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<tr>
<td>Finding Use Cases</td>
<td>12</td>
<td>6</td>
<td>6</td>
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</tbody>
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What resources would be useful to greater employ UAS?

- **Best practices in developing policy** | 46
- **Legal and regulatory clarity** | 51
- **Technical resources/guidelines** | 45
- **Funding for equipment/training** | 46
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.
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


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.
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
Introductions
Thank you for attending!

UAS Survey & Drone Users Group

bit.ly/IDdronesurvey

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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/1Ddronesurvey

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