Portland Police Bureau - Investigations Branch

Small Unmanned Aerial System (sUAS)
Pilot Project
City Council Presentation
March 2023

What is an sUAS?

sUAS is the term used for <u>Small Unmanned Aerial Systems</u>, also commonly referred to as "Drones". sUASs are widely used in the public sector, including nearly every jurisdiction within the Portland Metro area. The regulated use of sUASs by the PPB Investigations Branch will provide improvements in safety for both officers and community members. Additionally, the use of sUAS technology in crime / major crash scene events reduces inconvenience to the public by minimidocumentation time at a scene.

PPB sUASs are exact or slightly modified versions of commercially available products and will be clearly marked with City of Portland or Portland Police logo.





I-5 closed in North Portland (near Rosa Parks Way) Monday, December 6, 2021

I-5 NB & SB lanes were shut down from 10:30 AM to 5:30PM (7 hours) for crime scene investigation.



I-5 traffic re-routed: WSDOT re-routed I-5 SB traffic across Oregon to I-205. ODOT rerouted I-5 N traffic to parallel routes.





WSDOT officials reported 10-mile back-ups on I-205 SB during early PM rush hour traffic



20,900 hr (+95%)



\$618k (+90%)



90-95% increased in **vehicle-hours of delay** and **delay cost** on the day of the incident vs normal Mondays



25,700 hr (+430%)



\$809k

(+430%)

Clark County

430% increased in **vehicle-hours of delay** and **delay cost** on the day of the incident vs normal Mondays

Investigations Branch sUAS Pilot Project Summary

TRAFFIC DIVISION

- Document scenes of Major Crash Team activations
- Document post-crash vehicle damage
- Conduct traffic flow / pattern studies of high crash roadways
 - Provide sUAS support during Search and Rescue Operations

Metro Explosive Disposal Unit

- Quickly gather information on suspicious items from a distance
- Search immediate area for secondary devices
 - Visually clear potential blast area of community members
- Confirm location of items following render safe operations
 - Provide sUAS support during tactical events upon request of Critical Incident Commander (CIC)
 - Provide immediate support during disasters, building collapse, ie. Safeway Roof Collapse

Investigations Branch sUAS Prohibited Uses

3.6. Prohibited Use

- 3.6.1. UAS equipment shall not be used to:
 - 3.6.1.1. Conduct random or indiscriminate mass surveillance activities.
 - 3.6.1.2. Target a person based solely on individual characteristics, such as, but not limited to race, ethnicity, national origin, religion, disability, economic source or status, housing status, gender or sexual orientation.
 - 3.6.1.3. Harass, intimidate or discriminate against any individual or group.
 - 3.6.1.4. Conduct personal business of any type.
 - 3.6.1.5. Crowd control / crowd management, unless a life safety critical incident occurs.
- 3.6.2. The UAS shall not be weaponized (ORS 837.365).
- 3.6.3. The UAS will not be used in conjunction with any type of facial recognition technology

All data for example purposes only. These are not projections, but rather an example of data that can be tracked by the UAS Units

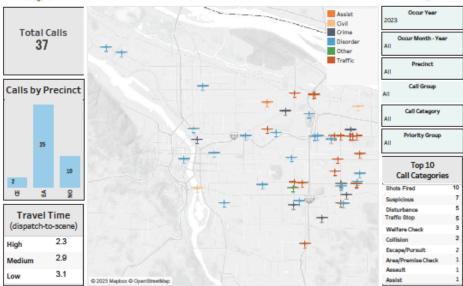


PORTLAND POLICE BUREAU UNMANNED AIR SUPPORT

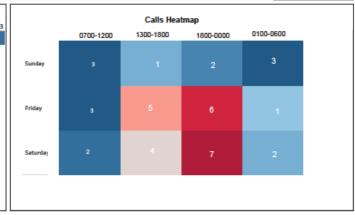
METRICS DASHBOARD MOCK-UP

1/1/2023 - 1/14/2023





Monthly Heatmap				
	2020	2021	2022	202
January			187	37
February			127	
March	187	177	259	
April	408	217	215	
May	154	215	264	
June	77	117	120	
July		170	235	
August		173	261	
September	25	161	136	
October		91	167	
November	45		134	
December	62	55	47	



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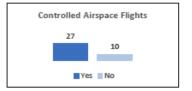
PORTLAND POLICE BUREAU UNMANNED AIR SUPPORT INTERNAL METRICS DASHBOARD MOCK-UP

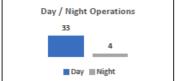


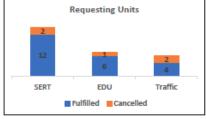
1/1/2023 - 1/14/2023

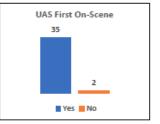
Flight Hours by Type						
Investigation	Patrol Support	Search & Rescue	Tactical	Training	Maintenance	Total Flight Hours
12	34	3	6	4	1	60

Personnel Hours			
Personnel Type	Straight Hours	Overtime Hours	% Overtime
Pilot	54	6	10%
Visual Observer	6	0	0%

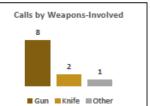










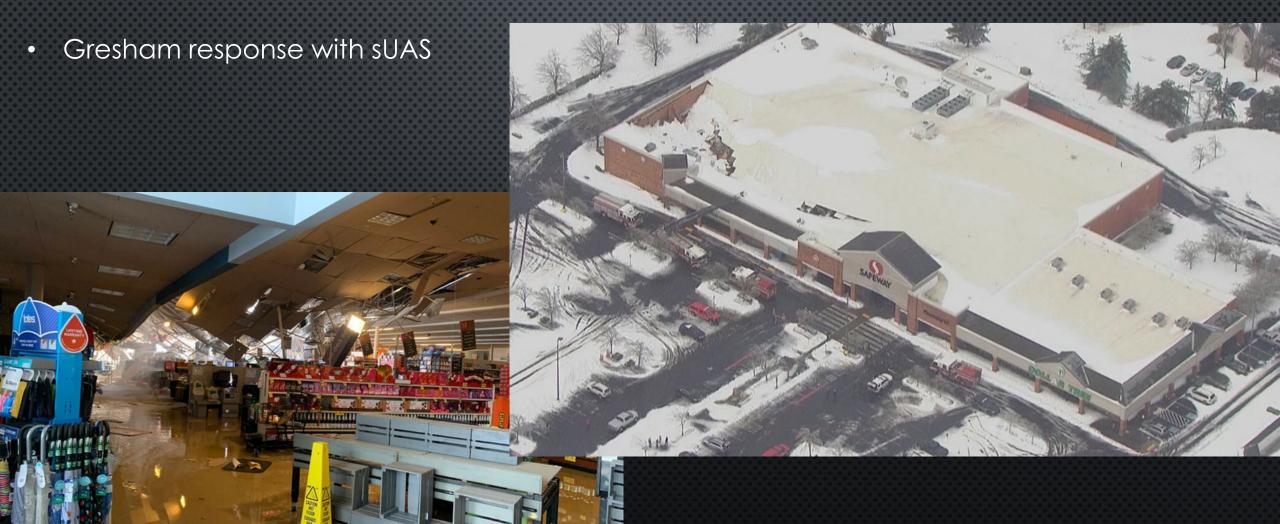


Surveillance		
Video Calls	Video Hours	
2	3.4	

Maintenance		
Firmware Last Update	Mechanical Update	
02/01/2023	02/04/2023	

Use Case #1 – Safeway Roof Collapse 2/8/2021

MEDU response with robot



<u>Use case #2 - FARO system vs. sUAS</u>





FARO – 3 hours, 24 minutes

sUAS – 30 minutes

<u>Use Case #3 – SE Division / SE 171st Hostage situation</u>

- 4th story location multiple shots fired at police
- Utilized Gresham sUAS as de-escalation tool



30 shots fired during ongoing SE Portland standoff





by: Jennifer Dowling

Posted: Nov 21, 2021 / 06:32 PM PST / Updated: Nov 22, 2021 / 01:06 PM PST

Editor's note: Authorities early Monday morning announced a woman was found dead and a man is in custody. Latest details are here.

POPTI AND Ore (KOIN) - A standoff remains underway after shots were fired by an unknown suspe

CVPD UAS VIDEO

PPB sUAS Program Recommendations

Recommendation	Timeline	Responsible Unit
Develop Investigation Branch SOP and authorized use events	Complete	ASU
Reinstate sUAS Pilot Program on Major Crash Team activations when appropriate	30 days	Council / MCT
Train and license pilots and operators including training on ORS, SOP's, FAA and internal reporting requirements	60 days	ASU
Identify equipment needs, test and procure sUAS platforms	60 days	MEDU
Begin Pilot Project for tactical/potential explosive incidents	60-90 days	MEDU
Pilot Project Review with statistics, reports, recommendations	Spring 2024	ASU/MEDU/MCT