Building Safety Division
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bendoregon.gov

UNMANNED AERIAL SYSTEMS (UAS) OPERATIONS

I. PURPOSE

To establish guidelines for the use of an unmanned aerial system (UAS, drone).

II. POLICY

The intent of the Drone Program is to use available technology to increase inspector safety, increase efficiency and/or provide a higher level of accuracy than typical methods. Use of the drone should fall into one or more of the below categories. Care should be taken that building progress at the site is not unduly affected by use of the drone. Typical uses of the drone will be for inspections that would otherwise require an inspector to wear fall protection safety equipment. These include, but are not limited to:

- Roof shear nailing inspections
- 2+ story shear wall nailing inspections
- Reroof inspections
- Other inspections as deemed necessary in order to verify code compliance

Any use of a UAS will be in strict accordance with constitutional and privacy rights and Federal Aviation Administration (FAA) regulations.

Privacy

Operators and observers shall take reasonable precautions to avoid inadvertently recording or transmitting images of areas where there is a reasonable expectation of privacy.

Program Coordination

Program Coordinator: Brad Mandal

- The Program Coordinator will be responsible for the management of the UAS program. The Program Coordinator will ensure that policies and procedures conform to current laws, regulations and best practices. Employees are to obtain permission from program coordinator before use of UAS.
- Program coordinator is responsible for ensuring that the UAS is registered with the FAA and the Oregon Department of Aviation.

Use of UAS

- UAS deployment requires the approval of the Program Coordinator or Direct Supervisor if not available.
- Only authorized operators who have completed the required training shall be permitted to operate the UAS. Operators must either hold a valid remote pilot airman certificate with a small UAS rating or be under the direct supervision of a person who does hold a remote pilot certificate.
- Each flight must be logged in UAS Flight Log *(see example in appendix A)* used for annual reporting purposes.
- Required preflight inspection by the remote pilot in command *(see appendix B)*
- UAS operations shall only be conducted during daylight hours.
- Operations in Class G airspace are allowed to a maximum 400' AGL without air traffic control permission. Operations in Class B, C, D and E airspace need ATC approval.
  (see appendix C for airspace class identifictations)
- UAS operators will follow all FAA rules.
- An additional Visual Observer to the Operator is encouraged but not required. This should be another City employee or the Job Superintendent, if available.
- UAS must retain visual line of sight between the aircraft and operator, or between the aircraft and the visual observer in direct communication with PIC.
- Written consent must be obtained from property owner or designated agent prior to use at site either with permit issuance or at inspection.
- UAS may not operate over any persons not directly participating in the operation, not under a covered structure, or not inside a covered stationary vehicle.
- UAS may be used for flight training purposes by those who hold a valid remote pilot airman certificate with a small UAS rating
- Maximum altitude of 400 feet above ground level, or if higher than 400 feet AGL, remain within 400 feet of a structure.
- No operations from a moving vehicle.
- Must yield right of way to manned aircraft.
- UAS shall not be used for personal use.
- Report to the FAA within 10 days of any operation that results in at least serious injury, loss of consciousness, or property damage of at least $500.

Retention of UAS Data:

Log books are not required under part 107, however specific information regarding UAS flights will be kept for reporting purposes.

Data (photos, video) resulting from the use of a UAS will not be retained.

Reporting

The Oregon Department of Aviation requires annual reporting that summarizes these topics:

- Frequency of use
- Purpose of use
- Indication of how the public can access the Building Safety Division's policies and procedures regarding the use of data resulting from the use of UAS

The Program Coordinator will be responsible for annual reporting (calendar year).

When to contact the City of Bend Legal Department

- If any injury occurs caused by the UAS or in relation to the UAS by either City employee or public bystander

Document Information			
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Revision History			
Revision Date:	09/05/2019	**Revision Author:**	Catherine Mackenzie
Revision Summary: Per Brad Mandal, additional visual observer is no longer required but encouraged. Modified verbiage to reflect.			
Revision History			
Revision Date:		**Revision Author:**	
Revision Summary:			

APPENDIX A

UAS FLIGHT LOG

DATE	LOCATION	PURPOSE	AUTHORIZED OPERATOR INITIALS	SIGNATURE

APPENDIX B

PRE-FLIGHT CHECKLIST

Before the day of flight

- ☐ Check the weather
- ☐ Update app if needed
- ☐ Obtain required permissions
- ☐ Pre-notification requirements
- ☐ Aircraft batteries charged
- ☐ Controller charged
- ☐ Equipment packed
- ☐ SD Card formatted

Immediately Before Flight

- ☐ All equipment brought
- ☐ Inspect aircraft for faults
- ☐ Warn all spectators
- ☐ Home point set?
- ☐ Lens cover removed
- ☐ Gimbal clamp removed
- ☐ SD card in aircraft
- ☐ Check signal strength
- ☐ Propellers tightened
- ☐ Correct flight mode selected
- ☐ Batteries properly fitted
- ☐ Check the wind speed
- ☐ Double check for obstacles (power lines, trees, buildings, etc.)
- ☐ Flip antenna out

Take off

- ☐ Controller turned on first
- ☐ Turn on aircraft
- ☐ Press record
- ☐ Hover at 15 ft. for 15 seconds to monitor behavior and sound
- ☐ Check all controls are responsive

APPENDIX C

AIRSPACE CLASS IDENTIFICATIONS