

Eagle Mountain City

Unmanned Aerial Vehicle Systems Operational Use Policy

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I. INTRODUCTION

a. Background

Despite their popularity among recreational and commercial users, the use of Small Unmanned Aerial Systems (sUAS or “Drones”) by public agencies is uncommon and fairly untested. This creates some challenges for Eagle Mountain City as it implements these tools into our tasks.

Eagle Mountain City saw the potential in sUAS vehicles and acquired its first sUAS to assist with a number of applications including economic development, field inspections, GIS map development, recreation and tourism, planning, infrastructure and facility inspections, and more.

The use of a sUAS comes with a number of risks in an as-of-yet unclear and uncontrolled airspace (under 400 ft.). Additionally, experienced pilots are few and far between and the use of a sUAS by an inexperienced individual can result in damage to the sUAS, other property, or even individuals. Finally, concerns of privacy, transparency, and otherwise appropriate use for a sUAS that is fitted with a camera or video recording device need to be addressed.

b. Purpose

In cooperation with the Federal Aviation Administration (FAA), State regulations, and in the interest of its residents, Eagle Mountain City has seen fit to establish a policy regarding the operational use of sUAS vehicle to help mitigate risk, address concerns of privacy and transparency, and generally maintain proper operational control over its sUAS vehicle(s).

c. Definitions

1. Control Station (CS): An interface used by the remote pilot or the person manipulating the controls to control the flight path of the small UA.
2. Corrective Lenses: Spectacles or contact lenses.
3. FAA: Federal Aviation Administration.
4. GPS: Global Positioning System.
5. Remote Pilot in Command (Remote PIC or Remote Pilot): A person who holds a remote pilot certificate with a sUAS rating and has the final authority and responsibility for the operation and safety of a sUAS operation conducted under part 107.
6. Small Unmanned Aircraft System (sUAS): A small UA and its associated elements (including communication links and the components that control the small UA) that are required for the safe and efficient operation of the small UA in the NAS.
7. Unmanned Aircraft (UA): An aircraft operated without the possibility of direct human intervention from within or on the aircraft.

8. Visual Observer (VO): A person acting as a flight crew member who assists the small UA remote PIC and the person manipulating the controls to see and avoid other air traffic or objects aloft or on the ground.

II. GENERAL PROVISIONS

a. Permitted Uses

The sUAS may be only used for the following purposes. Operation of the sUAS outside of this list must be authorized by the Senior Remote PIC. The Senior Remote PIC must consult with the City Attorney and City Recorder's office when a new use case is presented to identify any new liabilities and records management practices that may be necessary. Additionally, the Remote PIC must coordinate with the Communications Director to address any required additional notifications to the public that may be necessary.

1. Inspections of Developments
2. Inspections of City-owned property and assets
3. Filming for City productions *
4. Identifying and monitoring code enforcement violations on public property
5. Inspecting private properties under construction or adding assets such as solar panels that require inspection**
6. Aerial photography for the following purposes
 - a. Reporting on development progress
 - b. GIS Mapping projects
 - c. Economic Development initiatives*
 - d. City Events*
 - e. Inspection of City owned property and assets
7. Monitoring traffic & transportation infrastructure
8. Disaster recovery operations
9. Search and Rescue***

Notes:

*Please see in-flight requirements for certain restrictions to these uses

**Requires property owner fill and sign sUAS Operations Permission Form.

***Must only be at the request of a recognized public safety agency such as the Utah County Sheriff's Office or Unified Fire Authority.

b. Operator Training

1. Remote Pilot in Command

To be certified as a Remote PIC, an individual must be certified through the FAA according to Title 14 of the Code of Federal Regulations (14 CFR) part 107.

Certification with a sUAS rating requires the successful completion of an airman knowledge test conducted by an authorized third party and coordinated locally by CATS.

Under the Part 107 rule in which Eagle Mountain City operates, every operation requires a Remote PIC be present. Eagle Mountain City shall have on staff at least one 14 CFR Part 107 certified Remote PIC. For continuity purposes, departments that desire to operate UASs should certify at least one Remote PIC.

2. Training Program

Any employee who intends to, on an ongoing basis, pilot a City sUAS must certify as a Remote PIC. Eagle Mountain City will retain a Senior Remote PIC which will assist employees with completing the certification process.

Once the employee is certified, the employee must complete the sUAS training certification and policy agreement form found at the end of this document.

c. Privacy & Transparency

Eagle Mountain City employees must respect the privacy of residents, visitors, and business owners. Because of the capabilities of sUAS vehicles, extra precautions must be exercised to avoid deliberate or inadvertent breaches of privacy.

Due to the ever-changing nature of privacy laws and lack of specific Federal or even State regulation regarding sUAS operations as it relates to privacy, Eagle Mountain City can only create policy that is likely to fit expectations of all affected parties. Eagle Mountain City has established the following policies help to meet those expectations.

1. Notification of Flights

Eagle Mountain City shall provide sufficient notification of flights no less than 24- hours prior to a flight of the sUAS. Notification will be provided via the City website and shall describe the location, date and time, duration, and purpose of the sUAS operation.

2. Proximity

As per Utah S.B. 111 signed into law March 24, 2017, 76-6-206 Criminal Trespass, employees are not permitted to operate a drone on private property without the express permission of the property owner. Furthermore, sUAS operator may not intend to cause annoyance, fear, and injury, commit any crime, and so forth.

Operators may not trespass with the intent to eavesdrop or other surveillance, or use camera equipment to record, amplify, broadcast, or otherwise infringe upon the privacy of an individual or group on private property.

As defined in 76-6-206, operators may also not engage in voyeurism which is defined as intentionally using any type of technology to secretly or surreptitiously record video of a person for the purpose of viewing any portion of the individual's body regarding which the individual has a reasonable expectation of privacy, whether or not that portion of the body is covered with clothing.

Eagle Mountain City strongly wishes to protect the privacy of residents, visitors, and business owners in the city and further adds to State legislation by requiring all employees maintain a distance from private residences of 25 feet or greater and

private individuals 50 feet or greater. Employees who violate this requirement will be prohibited from operating a sUAV for six months. Employees who violate regulations defined in S.B. 111 will be subject to the full consequences found therein.

3. Law Enforcement

As per S.B. 111 signed into law March 24, 2017, law enforcement agencies will not be provided any data obtained from the sUAS unless the data is obtained pursuant to a warrant, in accordance to judicially recognized exceptions to warrant requirements, or the data pertains to an imminent or ongoing emergency involving danger of death or serious bodily harm to an individual and disclosing the data would assist in remedying the emergency.

4. Handling Saved Recordings and Photos

One of the primary reasons for obtaining and operating a sUAS is to capture video and still footage from an elevated vantage point that might otherwise be difficult to obtain. However, knowing that this ability creates a potential avenue of abuse, Eagle Mountain City requires tracking of any recordings or photos obtained by the sUAS.

Under no circumstances are employees permitted to store video recordings or photos to personal computers, hard disks, personal internet storage (cloud) solutions, or other personal data storage devices or services. Original copies of photos or videos may not be manipulated, edited, or otherwise modified in any way. Original copies of photos or videos will be retained on Eagle Mountain City servers only and be subject to standard retention schedules. If an employee wishes to modify the footage or images, a copy of the file must be made, maintained on City servers, and the original must be kept intact and stored.

Eagle Mountain is committed to an ongoing effort to preserve the privacy of residents, visitors, and business owners and maintain significant transparency in its use of sUAS. This policy will be updated as any new privacy concerns arise, technology changes, or means of transparency become available.

III. PRE-FLIGHT REQUIREMENTS

1. Intent to Operate

At least 24-hours prior to the sUAS operation, the intended operator of the sUAS shall make the public aware of an intent to operate by providing proper notice of flight(s) on the Eagle Mountain website, and by obtaining proper permissions from any private properties that the sUAS will be flying over. Operations must be performed according to the posted flight notification. Any desired variation requires a submission of a new notice of flight to the Eagle Mountain City website.

2. Flight Authorization

The Remote Pilot in Command (PIC) must verify adherence to Part 107 rules regarding the following conditions prior to a sUAS operation:

1. Location of operation

2. Time of operation
3. Duration of operation
4. Operator and Visual Observer
5. Purpose of Operation
6. Whether video or imagery will be captured and stored
7. Any known risks

The Remote PIC of the operation will then check weather, airspace, property details, and proceed with or cancel/postpone the operation based on information collected and known risks.

3. Maintenance & Safety Checks

Immediately prior to a sUAS operation, the sUAS must undergo a maintenance & safety check. Eagle Mountain City makes use of manufacturer pre-flight check lists such as the A.U.T.E.L. pre-flight check for its Autel Robotics sUAS. Remote PICs will regularly perform a comprehensive maintenance inspection and perform maintenance as needed on a monthly basis for each sUAS. Pre-flight maintenance and safety checks will identify any breaks, weaknesses, or any other abnormalities that may be present.

4. GPS Calibration

Prior to every flight, GPS must be calibrated. This ensures that a GPS malfunction does not occur in flight.

IV. IN-FLIGHT REQUIREMENTS

a. Precedence of FAA Regulations

The FAA has established a number of requirements and regulations regarding the operation of a sUAS flying under the 14 CFR Part 107 rule. Except where State statute may enhance these regulations, Eagle Mountain City defers to the FAA regulations as found in Title 14 of the Code of Federal Regulations (14 CFR) part 107. Eagle Mountain City offers no exceptions to these rules and agrees to adhere to the restrictions set forth by the FAA under part 107. Employees will be introduced to part 107 during their training and must agree to read the entirety of part 107 and follow it per this policy. The following rules and regulations found in this section add to the rules and regulations in part 107 and in no way remove responsibility for adherence to part 107.

b. Flight Rules

Under no circumstances will the below flight rules be disregarded or suspended. Employees who are found to be violating these in-flight rules will be suspended from flying a sUAS for six months and retrained.

1. Time & Weather Conditions

sUAS operations may only be performed between dawn and dusk. Under no circumstances can a sUAS be operated at night. Additionally, a sUAS may not be operated in the rain, snow, or in winds over 10 MPH at ground level. When the sun

is uninhibited, sUAS operators must ensure that their control stations are fully visible and not impeded by glare, dust, or any other obstructions at all times.

2. Locations

Operations may only take place in public locations or locations where property owners have provided explicit authorization in written form (authorization submitted via e-mail is satisfactory). This rule applies no matter where the sUAS lifted off. Employees may not impede traffic in public roads to operate or track the sUAS.

Operations are not permitted above groups of people including at City-sponsored events.

3. Speeds

sUAS vehicles are not permitted to surpass speeds of 30 MPH at any elevation.

4. Operator Requirements.

Any sUAS operation shall be performed with two employees. The employee who is not piloting the sUAS will be the visual observer. Visual observers are responsible for keeping a VLOS (visual line of sight) with the sUAS at all times, watch for any safety hazards, and assist the operator as needed.

Employees shall never lose sight of the drone. If a greater travelling distance is required the drone must be returned, landed, and the operator must relocate before flying the sUAS again.

While the sUAS is airborne, the operator and visual observer shall not operate the sUAS from a vehicle, must remove all distractions, and remain focused on the operation of the sUAS at all times. In accordance with FAA regulations, operators or visual observers shall not be impaired by alcohol or any other substance at any time. Please see FAA 14 CFR Part 107 for complete list of requirements in pilot conditions including fatigue, stress, and so forth. Furthermore, operators and visual observers are not permitted to eat or perform other actions that may distract them from their responsibilities at any time while the sUAS is airborne.

V. POST-FLIGHT REQUIREMENTS

a. Maintenance

At the conclusion of a sUAS operation, the operator shall perform an inspection of the sUAS and note any damage or defects and notify the Senior Remote PIC of any required maintenance as a result of the operation. All systems must be powered down and battery packs recharged.

b. Recordings and Photos

As per the requirements of handling photo and video obtained by a sUAS in section II, photo and video recordings must be removed from the data storage card and handled appropriately.

c. Accident Reporting

Eagle Mountain City will adhere to FAA requirements when an accident is caused by the operation of a sUAS. Should an accident occur, response will depend upon the nature of the accident. If there are injuries, first responders should be contacted immediately as necessary. Any injury to persons must be reported to the Senior Remote PIC immediately. Damage to any public or private property or the sUAS must also be reported to the Senior Remote PIC immediately. Employees should not accept responsibility or commit statements that would suggest responsibility for any incident until the appropriate City personnel have been consulted.

1. sUAS Damaged

If the sUAS is damaged in any way, it must be reported to the Senior Remote PIC. Damage as a result of uncontrollable circumstances will carry no consequences. If damage is due to negligent behavior or behavior that is not in accordance with this policy or training received, the operator and visual observer will be prohibited from operating a sUAS for six months and must be retrained.

2. sUAS Damages Property

Property damaged by the sUAS whether owned by the City or another party must be immediately reported to the Senior Remote PIC. Damage as a result of uncontrollable circumstances will carry no consequences. If damage is due to negligent behavior or behavior that is not in accordance with this policy or training received, the operator and visual observer will be prohibited from operating a sUAS for six months and must be retrained.

3. sUAS Injures Person(s)

Every injury caused by sUAS operations shall be reported to the Senior Remote PIC immediately. Medical assistance shall be rendered and first responders contacted as necessary if persons are injured due to the operations of a sUAS. If the injured persons are the operator and/or visual observer, both shall be retrained. If the injured persons were not involved in the sUAS operation, but the injury was not due to negligence of the operator or visual observer the operator and visual observer shall be prohibited from sUAS operations for six months and undergo retraining. If other parties are injured as a result of negligent behavior or deliberately operating outside the rules of this policy and training, the operator shall be permanently prohibited from sUAS operations and the visual observer prohibited for one year and must undergo retraining.

Senior Remote PIC will report injuries requiring hospitalization over 48 hours to the FAA within 10 days of the accident occurring.

4. Violation Exceptions

The visual observer is responsible only for monitoring the operation to observe and report any risks to the sUAS. Therefore exceptions can be provided at the discretion of the Senior Remote PIC and City Attorney to the visual observer if only the sUAS operator was negligent.

VI. GENERAL sUAS OPERATIONS REQUIREMENTS

- a. sUAS shall not exceed 400 vertical feet AGL (above ground level)
- b. Operations shall remain 500 vertical feet below the lowest cloud layer.
- c. Operations shall not take place in the rain, snow, hail, or other precipitous weather or winds exceeding 10 MPH at ground level.
- d. Visibility shall be at a minimum 3 statute miles.
- e. No visual observer may act as a visual observer for more than one sUAS at one time.
- f. Employees may not operate a sUAS if he or she knows of any physical or mental condition that would interfere with the safe operation of a sUAS.
- g. sUAS may not be operated from a moving vehicle
- h. sUAS may not fly over people.
- i. sUAS must fly at a minimum distance of 25 feet from an obstacle in all directions.
- j. A sUAS may only land on the ground.
- k. Visual line of sight must be maintained at all times.
- l. Operators must be capable of presenting authorization to fly at any time (can be a printed email from the Remote PIC).
- m. Flights on private property require signature of the property owner on the sUAS Operations Permission Form.
- n. Operators shall not be fatigued, under a great deal of stress, have consumed alcohol within the past 8 hours, or under the influence of drugs or medication.
- o. Sufficient time shall be provided to the operation so as to prevent rushing the operation and risking mistakes.
- p. sUAS flights shall be ended immediately when five minutes of battery life remains.

VII. Agreement

By signing below, you affirm that you have read this policy and agree to adhere to this policy in its entirety, to obtain necessary training prior to operating a sUAS, and adhere to the reporting and records management practices of this policy. By signing you also affirm that you understand the regulations and guidelines established by the State of Utah and the Federal Aviation Administration as part of 14 CFR Part 107. Finally, by signing, you also affirm that you understand the consequences of failing to adhere to this policy and that Eagle Mountain City cannot defend you when you are found in negligence to the rules of this policy, 14 CRF Part 107, and Utah State law.

Employee Signature: _____

Printed Name: _____

Date: _____

sUAS Operations Permission Form

Name of Operator: _____

Will Video or Photography be used?

Date: _____

Y / N

Address of Property: _____

Known Risks: _____

Duration of Operation: _____

Description of Operation:

Signature of Property Owner:

Printed Name of Property Owner:

sUAS Operations Permission Form

Name of Operator: _____

Will Video or Photography be used?

Date: _____

Y / N

Address of Property: _____

Known Risks: _____

Duration of Operation: _____

Description of Operation:

Signature of Property Owner:

Printed Name of Property Owner:

EAGLE MOUNTAIN CITY

CERTIFICATE

OF COMPLETION

THIS CERTIFICATE IS PRESENTED TO

SUAS OPERATOR TRAINING

THE INDIVIDUAL LISTED ABOVE HAS SATISFACTORILY COMPLETED THE REQUIRED TRAINING AND FLIGHT TIME REQUIREMENTS TO OPERATE A SUAS FOR APPROVED USES. THIS CERTIFICATION IS GOOD FOR TWO YEARS AND MUST BE RENEWED AT THAT TIME.

DATE



SIGNATURE

