

Cobb County Police Department

Policy 3.20

Unmanned Aircraft System Operations

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Rescinds: N/A	Page 1 of 6
The words “he, his, him,” which may appear in this policy, are used generically for clarity and ease of reading. These terms are not meant to imply gender and relate to all employees of the Department.	

The purpose of this policy is to establish the use and operational guidelines for Unmanned Aircraft Systems (UAS) for the Cobb County Police Department. This policy is designed to minimize risk to people, property, and aircraft during the operation of the UAS while continuing to safeguard the rights and privacy of all persons.

I. DEFINITIONS

As used in this policy, the following words and terms shall have the meaning ascribed.

- A. Pilot:** The individual exercising control over the UAS during flight.
- B. Pilot in Charge (PIC):** The individual responsible for the overall flight operations for a specific mission.
- C. Observer:** The individual trained to maintain the line-of-sight and 360-degree hazard awareness around the UAS during flight and assist the PIC in carrying out all duties required for the safe operation of the UAS.
- D. Certificate of Authorization (COA):** COA is an authorization issued by the Federal Aviation Administration (FAA) to a public operator for UAS operations.
- E. Defined Incident Perimeter:** A defined perimeter to be determined based on the scope of the operation.
- F. Unmanned Aircraft System/ Vehicle (UAS/UAV):** An aircraft without a human pilot. Its flight is controlled either autonomously by computers in the vehicle or under remote control of a pilot on the ground.
- G. Temporary Flight Restrictions (TFRs):** A restriction on an area of airspace due to the movement of government VIPs, special events, natural disasters, or other unusual events.
- H. Night Flight:** Flight of a UAS that occurs between the hours of one half hour after sunset and one half hour before sunrise. The time of sunset and sunrise are determined by the National Oceanic Atmospheric Administration (NOAA).

- I. Visual Flight Rules (VFR):** All flights with the UAS will be conducted under VFR conditions. VFR is established as a three-mile visibility and a cloud ceiling of 1,000 feet for day operations and five-mile visibility with a cloud ceiling of 2,000 feet for night.
- J. Program Coordinator (PC):** The individual responsible for overseeing the administrative functions related to the UAS program to include the following:
- A current list of certified Pilots and Observers.
 - Training records for all Pilots and Observers.
 - Maintenance and flight records for all UAV's owned and operated by the Cobb County Police Department.
 - A list specific to what capabilities each UAV has and what unit operates that UAV.

II. PROCEDURES

A. Pre-Flight Briefing

A briefing led by the PIC will be conducted prior to every flight, which includes, but is not limited to:

1. Review of the mission's goal and expected outcomes
2. Review of current and forecasted weather
3. Review of current Temporary Flight Restrictions (TFR's) that have been issued for the purposed flight area.
4. Identification of mission limitations and safety issues such as battery charge, GPS strength, and potential radio interference.
5. Review of proposed flight area, including maximum ceiling and floor.
6. Review of communication procedures between PIC, Observer, and others used to support the mission. Including verifying contact information for Air Traffic Control in the event of a fly-away or other flight emergency.
7. Review of emergency procedures.
8. Execution of a pre-flight check list.

B. Approved Uses and Missions

Prior to any mission being launched, all parties will be notified that may be impacted by the UAS operation. UAS operations will be utilized in support of public safety missions to include but not limited to the following:

1. Gathering photographic evidence over crime and traffic accident scenes;
2. Explosive Ordinance Disposal missions;
3. Response to hazardous material spills;
4. Search and rescue missions;
5. Public safety life preservation missions;
6. Gathering photographic and video images over disaster scenes;
7. Surveillance operations;
8. Training missions;
9. Other legal and law enforcement related missions as approved through Special Operations or Special Investigations Commander

C. Launch and Recovery Procedures

Typical operations entail launch and recovery from and to open ground. A common alternative is to launch and recover the UAS in the hand of a second person, who is assisting the PIC. These are referred to as “hand launch” and “hand recovery” respectively.

D. Emergency Procedures

The safety of persons on the ground and other airborne aircraft during operations will be the priority of the PIC. The following emergency procedures and will be documented with an emergency checklist for the crew to review.

1. Fire

UAS will be flown away from people and property until a safe landing location can be found. A fire extinguisher and first aid kit will be located at the mission site.

2. Loss of Link

Onboard system will execute lost link protocol by either landing immediately or returning to launch point and land.

3. Line of Sight Lost

In the event that both the PIC and Observer lose sight of the aircraft, the pilot will initiate a Go-Home on the remote control. The Go-Home protocol is identical to the Loss Link protocol. Once visual contact with the aircraft

is re-established the pilot will take back control of the aircraft using the remote control.

4. Loss of Engine

During an engine failure, UAS flight cannot be maintained and the aircraft will make an uncontrolled landing. An announcement will be made to all crew members of the loss of flight of the aircraft and to watch for the landing site. One crew member will bring a fire extinguisher to the landing site.

5. Unusual Altitude

In the event the UAS flight altitude changes without flight control inputs, onboard stabilization gyros will be allowed to level the aircraft before control is resumed by ground control.

E. Lost Communication Procedure

If required, the PIC will communicate with air traffic control through dispatch or by cellular phone based on the agreement between air traffic control and the PIC. In the event the PIC is unable to establish communication; the PIC will immediately land the UAS until communication can be regained. In all cases, when there is concern for persons or property on the ground or in the air, the PIC will immediately land the UAS.

F. The PIC and Observer should attempt to maintain proximity during operations to allow direct communication. However, if the observer and the PIC are separated where verbal communication is not possible, the following communication tools will be utilized:

1. Handheld radio
2. Cellular phone
3. Hand signals (made solely or in conjunction with the communication equipment)

If communication is lost and cannot be re-established the UAS will immediately land until communication can be regained.

G. Accident Notification and Investigation

All in flight accidents and incidents involving fatalities, injuries, property damage, or fly-aways shall be reported to the chain of command immediately. FAA regulations require the FAA to be notified within 24 hours. An incident report shall be completed detailing the incident. The PIC will notify the FAA of the incident and forward all required documentation.

H. Every departmental unit will operate their UAS in accordance with this policy.

- I. All missions will be flown in accordance with FAA regulations 14 CFR Parts 91 and current department Certificate of Authorization (COA). Only aircraft owned or maintained by the Cobb County Police Department will be flown under this policy for any Cobb County Police missions.

III. PILOT AND OBSERVER REQUIREMENTS

A. Pilot Requirements

Initial Training: All personnel selected as pilots to fly Public Safety missions shall be properly trained by a certified department instructor. The pilots will have a current working knowledge of the airspace intended for operations, Air Traffic Control communication requirements, specific UAS aerodynamic factors, and the ability to obtain and interpret weather information. All pilots shall be familiar and proficient with the role and functions of an observer.

Pilot requirements will also include knowledge of all pertinent UAS related matters and understanding of the current COA guidelines.

B. Observer Requirements

Initial Training: UAS observers shall meet all conditions of the most recent COA issued by the FAA. Observers will have a current working knowledge of the airspace intended for operations, specific UAS aerodynamic factors, and the ability to obtain and interpret weather information. The Observer will receive specific training on relevant Code of Federal Regulations (14 CFR Part 91), such as the obligation to see and avoid other aircraft, and the ability to identify position for purpose of relaying position reports to the PIC.

IV. PROFICIENCY TRAINING

To maintain proficiency, all pilots shall conduct at least one training flight to include one take-off and one landing each month. Training flights shall be documented in the pilot's flight log and should be witnessed by a certified UAS pilot. It is the responsibility of each pilot to ensure proficiency is maintained. Pilot proficiency training is not limited to just pilot or observer skills, but also includes knowledge of all pertinent UAS matters and an in-depth understanding of current COA guidelines.

Members who do not have documented training or flight time for 90 days shall demonstrate proficiency to another certified pilot prior to performing pilot or observer duties during a mission.

Any pilot that does not have documented training or flight time within 180 days or more is required to be retrained by a certified UAS instructor. The training shall include a minimum of one hour of ground instruction and flight time and will include making three take-offs and landings to demonstrate proficiency.

Failure to maintain and demonstrate proficiency will result in removal from UAS operations.

V. UAS MAINTENANCE

UAS maintenance is the responsibility of the PC (Program Coordinator) in accordance with manufacturer recommendations. All maintenance and repairs will be documented in the assigned UAS maintenance log. A test flight shall be conducted and documented after any maintenance or repairs are completed on the UAS.