



GREENVILLE COUNTY
SHERIFF'S OFFICE

GO - 253

GENERAL ORDERS

UNMANNED AERIAL SYSTEMS (UAS) (DRONES)

PURPOSE:

The purpose of this policy is to establish guidelines for the use of Unmanned Aerial Systems (UAS), also known as drones, and for the storage, retrieval, and dissemination of images and data captured by the drone.

DEFINITIONS:

Drone - A drone is defined as an unmanned aircraft of any type that is capable of sustaining directed flight, whether preprogrammed or remotely controlled, and all of the supporting or attached systems designed for gathering information through imaging, recording, or any other means.

USE OF DRONES:

Drones may be used at any time when they improve the safety, efficiency, or effectiveness of the sheriff's office in furthering the agency mission of protecting life and property. Drones may be used to assist and support other public safety agencies when requested.

POLICY:

Drones are utilized to enhance the Greenville County Sheriff's Office mission of protecting life and property. Any use of a drone will be in strict accordance with applicable laws and due regard of the constitutional rights and privacy of the public. Unlike state laws covering other vehicles operated by the sheriff's office, the FAA does not allow any violations of their regulations by law enforcement in the performance of their duties. Therefore, all drone operations will strictly comply with the Federal Aviation Administration (FAA) regulations.

Drones will only be operated by deputies that possess their FAA Part 107 Certification and have completed the drone program training. Drones may also be operated directly under the authority of the Remote Pilot in Command (RPIC), provided that the RPIC has met the above requirements. All drones used by the Greenville County Sheriff's Office will be owned by this agency or another law enforcement/public safety agency. No personally owned drones will be flown on behalf of the sheriff's office.

All drones will be operated in DroneSense to maintain flight logs, flight telemetric data, and equipment records. In the event of technical problems, the Drone Program Manager may authorize the use of a different application on a per-flight basis. While flying, all drone video will be recorded.

The combination of DroneSense records and video recordings provides a method to audit flights and show accountability.

**DRONE PROGRAM
MANAGER:**

The Sheriff will appoint a Drone Program Manager who will be responsible for the management of the drone program. The program manager will ensure that policies and procedures conform to current laws, regulations, and best practices including:

1. Ensuring that all authorized operators have completed all required FAA and department-approved training in the operation, applicable laws, policies, and procedures regarding the use of drones.
2. Developing a drone inspection, maintenance, and record-keeping protocol to ensure the continuing airworthiness of a drone, up to and including its overhaul or life limits.
3. Ensuring that established protocols are followed by monitoring and providing periodic reports on the program to the Sheriff.

**DRONE PROGRAM
COORDINATORS:**

Drone Program Coordinators will be recommended for their position by the Drone Program Manager and approved through the chain of command. They will demonstrate proficiency in drone operations and all technical skills required to ensure safe, efficient, and legally compliant drone operations.

1. Ensure compliance with GCSO policies in drone operations.
2. Maintain training, flight, and maintenance records for each operator and individual airframes.
3. Maintain contact with the FAA and stay up to date with regulations.
4. Training and supervision of drone operators.
5. Proper reporting of any issues or accidents.
6. Administer and coordinate a field training program in conjunction with the Drone Program Manager.

**RETENTION
OF DATA:**

Flight logs are maintained in Dronesense. Any time a drone operator receives authorization to use a different application due to technical issues, that flight log shall be provided to the drone program coordinator upon request through the flight application.

Video or photos that are needed as evidence will be downloaded and placed in Property and Evidence in accordance with General Order 203 and all other applicable guidelines.

Video collected by the drone shall be retained as provided in the established video retention schedule consistent with Body-Worn Camera video.

1. Recordings that are non-investigative, non-arrest, and are not part of any internal investigation will be retained for not less than two years.
2. Recordings of any arrests or violations of offenses listed in the S.C. Preservation of Evidence Act, S.C. Code 17-28-320, the expungement statute of S.C. Code 17-1-40, or any other statute, regulation, or case law will be retained for not less than 6 years.

**AIRFRAME
MAINTENANCE:**

1. Drone operators will maintain the airframes in accordance with manufacturer specifications.
2. Any deficiencies will be immediately reported to the Drone Program Manager/Coordinators.
3. Propellers will be replaced as per manufacturer instructions, but any other repairs will be completed by a facility approved by the drone manufacturer. All repairs will be documented in the maintenance section in DroneSense.
4. Monthly inspections will be completed and appropriately documented on all drones.

**DRONE VISUAL
OBSERVER:**

The FAA requires that the operator and/or flight crew member of a drone operation maintain a visual line of sight with the drone. The requirement to use a visual observer may be waived by a drone program coordinator for situations where the pilot will not be occupied with the video feed, such as testing equipment, training, or other scenarios when the pilot is not distracted and visually observing the drone.

**DRONE PROGRAM
TRAINING:**

Drone Operators must complete a basic training session with the Drone Program Coordinators. Before being authorized to operate a drone without direct supervision, drone operators must complete the following tasks:

1. Obtain their FAA Part 107 certification for Drone operators
2. Trainees will be required to successfully demonstrate the following skills:
 - a. Set up and power on the drone and establish a solid link between the transmitter and the drone.
 - b. Complete a pre-flight checklist in DroneSense

- c. Create a mission in Dronesense and establish a broadcast of the flight
 - d. File a LAANC and explain the FAA Special Government interest (SGI) process
 - e. Calibrate the compass of the drone
 - f. Manually take off from a specified location
 - g. Manually land the drone at a designated spot without assistance
 - h. Fly the drone approximately 1000ft in distance and record a 20-second video of a specified object, and then take 5 photos of a specified location
 - i. Be able to pan/tilt the gimbal from the transmitter as well as adjust camera settings.
 - j. Manually fly the drone back to the operator's location and land safely
 - k. The operator must fly a set course created by the training officer and be able to utilize the return-to-home function
 - l. The operator must be able to accurately read the data on the screen display when requested
 - m. Successfully land the drone, remove/change the battery, and charge the batteries.
 - n. Remove the SD card and download pictures and videos as appropriate
 - o. Demonstrate the ability to use Sartopo to coordinate with Search and Rescue
 - p. Show proficiency in the use of DroneSense (creating missions, waypoint flights, media sharing, etc.)
3. Drone Operators must complete a total of four hours of daytime drone operations and two hours of nighttime drone operations. These minimal training hours should be completed during the forty-hour internal agency training after obtaining the Part 107 certificate.
 4. The drone operator must be able to demonstrate proficiency in indoor flying and building clearing.
 5. Drone operators must complete a scenario that includes deploying a drone as carried in a patrol vehicle, creating a mission in Dronesense, filing a LAANC, setting up all equipment required to broadcast the flight properly, and flying the mission required for the scenario. This scenario will replicate a typical use of patrol drones.


Once the drone operator is deemed proficient and authorized for solo missions, they will be required to attend monthly training for six months. This will consist of eight hours of team training designed to enhance the pilot's skills in general drone operations, building clearing, and Search and Rescue flights.

Quarterly Training will be required of all drone-certified employees of the Greenville County Sheriff's Office to maintain proficiency. The quarterly training will be a four-hour supervised training session with the Drone Program Coordinators. At least one hour of the quarterly training shall include nighttime flight operations. Failure to complete this mandatory recurring training may result in the suspension of their authority to operate a drone.

**REMOVAL FROM THE
DRONE PROGRAM:**

The safe operation of a drone requires a level of proficiency and an understanding of evolving technology, laws, and FAA regulations. Drone operators may be removed from the Drone Program, and lose their authorization to fly drones for the sheriff's office in any of the following cases.

1. Failure to successfully obtain and maintain their Part 107 certification
2. Demonstrating unsafe, reckless, unethical or illegal behavior with the drones
3. Failure to attend mandatory training
4. Failure to satisfactorily complete the required skills of a drone operator after one year in the program.



Hobart Lewis, Sheriff