

# ELIZABETH POLICE DEPARTMENT GENERAL ORDERS



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**SUBJECT: UNMANNED AERIAL SYSTEMS (UAS)**

**EFFECTIVE DATE:**

**April 1, 2020**

**ACCREDITATION STANDARDS:**

**N/A**

**BY THE ORDER OF:**

**Deputy Chief Giacomo Sacca**

**BY AUTHORITY OF:**

**Police Director Earl J. Graves**

**PURPOSE** The deployment of Unmanned Aerial Systems (UAS), commonly referred to as "drones," have become more commonplace in law enforcement. These systems offer strategic and tactical insight into ongoing critical events that may assist in reducing injuries or death to those involved and more efficient handling of a variety of situations. The purpose of this policy is to guide the agency and set parameters for the proper use of UAS equipment.

**POLICY** It is the policy of the Elizabeth Police Department to establish a UAS unit utilizing trained UAS pilots to assist in police operations and general public safety missions. Safety above all else, is the primary concern in each activity, regardless of the nature of the task. Only trained and authorized personnel may deploy an Elizabeth Police Department UAS in the performance of official duties.

**PROCEDURE**

## I. DEFINITIONS

- A. Unmanned Aerial Vehicle (UAV) - any powered aerial vehicle that does not carry a human operator, uses aerodynamic forces to provide vehicle lift, can be programmed to fly autonomously or can be piloted remotely, may be expendable or recoverable and can serve as a platform for devices or systems which are capable of:
1. Photographing persons, objects or mapping surface or geological formations and storing or transmitting captured images;
  2. Tracking or detecting persons or objects using infrared, thermal or any similar storing or transmitted the captured information;
  3. Engaging in a real-time video recording of the movements of persons or objects and storing or transmitting the captured information; and
  4. Detecting and capturing aural, digital and other forms of communication and storing or transmitting the captured communications
- B. Unmanned Aircraft System (UAS) – An all-encompassing description that encapsulates the aircraft or UAV, the ground-based controller, the system of communications connecting the two and the personnel who operate the UAV itself, maintain the UAV and who supervise the staff involved in the operation of the UAV.
- C. Small Unmanned Aircraft Systems (sUAS)- UAS systems that utilize UAVs weighing less than 55 pounds and are consistent with the Federal Aviation Administration (FAA) regulations.
- D. Digital Media Evidence (DME)- Digital recordings or images taken with a camera affixed to the UAS.
- E. UAS Flight Crewmember- A pilot, visual observer, payload operator, or other person assigned duties for a UAS for the purpose of a flight or training exercise.
- F. Pilot in Command (PIC)- An individual who is solely responsible for all aspects of the UAS operations, including but not limited to safety, flight operation, flight planning, and reporting. The Pilot-In-Command is the final authority to determine if a specific mission can/will be flown.
- G. Unmanned Aircraft Pilot- An adequately trained individual who operates the UAS under the general supervision of the Pilot-In Command.
- H. Visual Observer (VO)- Individuals assigned to maintain constant observation of the UAS during flight operations and report any safety issues or concerns that may affect the flight of the UAS. Concerns can include birds, aircraft, utility poles, towers, or any unforeseen circumstances.
- I. Routine Law Enforcement Purpose- Any law enforcement activity that does not require judicial approval under the statutory or decisional law of the jurisdiction or the State of New Jersey.

- J. Public Safety Agency- Any local, state, or regional agency or entity that must enforce the law, respond to or plan response to emergencies.
- K. Certificates of Waiver or Authorization (COA)- An authorization issued by the Air Traffic Organization to a public operator for a specific unmanned aerial activity.
- L. Federal Aviation Administration- More commonly known as the FAA, a National Authority with powers to regulate all aspects of civil aviation.

## **II. Organization**

- A. The Chief of Police designates the person to serve as the UAS Unit supervising officer. The UAS Unit supervisor shall be responsible for the overall management and supervision of all unmanned aircraft operations.
- B. Police Captains and Chiefs may authorize UAS flights along with the UAS Unit Supervisor. In the absence of a Captain, Chief, or UAS Unit Supervisor, the highest-ranking officer on duty may authorize a UAS flight.
- C. The Chief of Police shall also name a Chief Pilot who shall report to the UAS Supervisor. The Chief Pilot responsibilities include UAV registrations, updates, and the general upkeep of all UAVs. All UAV pilots are required to cooperate with the Chief Pilot to maintain UAS efficiency, effectiveness, and safety. The Chief Pilot shall run monthly training for all UAV pilots and verify to the Chief of Police individual pilot capabilities.
- D. The Chief of Police shall name all agency authorized UAV pilots, the UAS Unit Supervisor, and the Chief Pilot in a Personnel Order, posted on the agency document management system. Captains and Chiefs shall verify a UAV pilot's name on the most current order posted, before granting flight authorization.

## **III. UAV Minimum Specifications**

- A. All UAS acquired by the Police Department shall meet specifications required by the Federal Aviation Administration.
- B. All UAVs acquired by the agency must have an application that allows the UAV to autonomously fly back to a pre-determined takeoff point upon losing controller contact.
- C. UAV pilots shall not operate equipment in an unsafe manner or in violation of FAA rules.

## **IV. Certification**

- A. The Elizabeth Police Department shall obtain all necessary Certificate(s) of Authorization(s) and/or Waivers (COA) from the Federal Aviation Administration before the use of a UAS. The Chief Pilot and Unit Supervisor are responsible for maintaining all records and verifying agency compliance to the Chief of Police and Police Director.
- B. The Elizabeth Police may also operate a UAS under the provisions of 14 CFR Part 107 of the Federal Aviation Regulations.
- C. Before operating an agency UAS, pilots must be certified through the Elizabeth Police UAV training program and demonstrate a working knowledge of the agency policy, procedures, and provisions of the FAA COA issued to the agency.
- D. During operations, UAS pilots may only fly the specific UAV model in which they are trained and received Police Department certifications.

## **V. Pilots**

- A. The Chief of Police will select the appropriate number of agency pilots necessary.
- B. The pilot's primary duty is the safe and effective operation of the agency's UAS. Pilots must always operate following manufacturer's recommendations, FAA regulations, COA conditions, New Jersey State Law, and agency policy.
- C. For independent operations, pilot certifications require the logged completion of a minimum of three (3) currency events within the previous 90 days. Currency events include but are not limited to landings, takeoffs, and emergency procedures.
- D. Pilots can be temporarily or permanently removed from active flight status at any time by the Chief of Police. The UAS Unit supervisor shall document the removal of the pilot's operational status, and the Chief shall update the agency document system to reflect the change.
- E. All agency Pilots are responsible for ensuring that UAS operations abide by the provisions of the Certificate of Waiver of Authorization issued to the agency. If a COA is invalid, the pilot is responsible for ensuring that the UAS operation abides by the provisions of 14 CFR Part 107 of Federal Aviation Regulations.

## **VI. Visual Observers**

- A. All Pilots shall designate a visual observer responsible for assisting the pilot in scanning the airspace surrounding the UAS operational area.
- B. The visual observer can be any sworn police officer. The visual observer role is always to keep the UAV within line-of-site and scan the area for potential hazards.

- C. No UAS outdoor operations will be conducted without a designated visual observer. Generally, visual observers and pilots will remain within vocal communication distance. However, a pilot and visual observer may communicate via cellular phone or police radio if necessary. If communications between pilot and observer are not established, the pilot shall terminate the flight immediately.
- D. The visual observer will immediately notify the pilot of any obstructions, objects, and other aircraft in the airspace surrounding the UAS operations.
- E. A visual observer is not required on flights that are conducted indoors, such as when the UAS is used to clear the inside of a structure or when operating under 14 CFR Part 107 of Federal Aviation Regulations.

## **VII. Chief Pilot**

- A. Documents and stores all records for agency UAS.
- B. Provides training to all agency UAS pilots, ensuring all personnel involved with flight operations understand applicable regulatory requirements along with safety precautions, policies, and procedures.
- C. Ensures all flight logs, pilot currency records, UAS maintenance records, and other related records are up to date and kept in a central file with the UAS Unit Supervisor.
- D. Ensures firmware on all agency UAS and ground control units are up to date.
- E. Ensures the manufacturer's recommended maintenance is performed on each agency UAS.

## **VIII. Training**

- A. All UAS pilots will receive the following training before serving in an operational capacity:
  - 1. Agency UAS policy / COA contents and provisions
  - 2. UAS ground training
  - 3. UAS hands-on flight training to include flying at night. Pilots must complete a minimum of 4 hours of training with an agency instructor before qualifying as a solo practitioner.
- B. Before operational capacity, pilots must satisfactorily complete a practical UAV flight test given by the Chief Pilot or the UAS Unit Supervisor. Testing requires the pilot to demonstrate flight safety, proficiency, and emergency operations.

- C. Annual certification is required for pilots to maintain operational status. The Chief Pilot is responsible for organizing and documenting annual recertification sessions.
- D. The Chief Pilot shall organize monthly training sessions for all agency pilots to cover safety, FAA rules and regulations, and any relevant case law about UAV use by law enforcement personnel.
- E. Pilots must complete at least three (3) currency events every 90 days utilizing the make and model of the UAS to be deployed. Currency events include takeoffs, landings, and emergency procedures. Lapsed currency flights will prohibit the pilot from flying in any public safety mission. Pilots who experience a lapse of currency must perform their currency events under the supervision of the UAS Supervisor. A pilot shall record proficiency flights in their UAS logbook with an endorsement from the UAS Unit Supervisor.
- F. A Part 107 Remote Pilot certification issued by the FAA is not required, provided that the pilot is operating under a valid COA issued to the agency in an official law enforcement capacity.

## **IX. Missions**

- A. Requests for the use of the UAS must follow the guidelines outlined within this order. Acceptable UAS missions include:
  - 1. Search and Rescue- To assist in missing person investigations, Amber Alerts, Silver Alerts, missing swimmers, suicidal persons, lost persons, and other search and rescue missions.
  - 2. Situational Awareness- To assist officials in understanding the nature, scale, and scope of the incident, and for the planning and coordinating of an effective response.
  - 3. Tactical Deployment- To support the tactical deployment of law enforcement personnel and equipment in emergencies (e.g., incidents involving hostages and barricades, support for large scale tactical operations, and perimeter situations)
  - 4. Visual Perspective- To provide an aerial visual perspective to assist law enforcement personnel in traffic incident management, crowd control, temporary perimeter security, assessing suspicious packages or other unusual circumstances
  - 5. Fleeing/Hiding Suspects- To assist with locating fleeing or hiding suspects in wooded areas or other public areas.

6. Scene Documentation- To document a crime scene, a crash scene, fire scene, natural disaster scene, or other incidents.
  7. Aerial Photography- To obtain still photography or video when appropriate to be used for agency press releases or social media posts or other purposes as directed by the Chief of Police or his/her designee.
  8. Routine Safety Deployment- To assist with an aerial visual perspective of densely populated pedestrian areas (e.g., river trail, waterfront, marina, and parks) or to make public safety announcements.
  9. Medical Calls - To assist medical personnel with situational awareness.
  10. Other Incidents - Any other incident approved by the Chief of Police or his/her designee that would benefit the law enforcement objective by providing an aerial visual perspective.
- B. Before approving the use of a UAS, Commanders must consider the practical application and likely successful benefit of a deployment.
  - C. Ultimately, the UAS pilot has the final authority to determine whether conditions and circumstances are safe to conduct the flight.
  - D. When there are reasonable articulable grounds to believe that a Police UAS will collect evidence of criminal activity and the UAS may intrude upon a reasonable expectation of privacy, police personnel must obtain a search warrant before conducting the flight. Exceptions to the warrant requirement shall mirror that of case law or where missions are taking place, which the exigency to protect the safety of the public negates the practicality of obtaining a search warrant.
  - E. All deployments of the UAS and flights will be documented on the appropriate log, including but not limited to: the name of the deploying officer, who authorized the deployment, date, time and location and reason for implementation.

## **X. Minimum Flight Crew Requirements**

- A. The minimum crew on all UAS operations will be a pilot and a visual observer unless the pilot is conducting the activity under 14 CFR Part 107 of Federal Aviation Regulations.
- B. The pilot and the visual observer will work together to accomplish the objectives of the mission safely.

## **XI. Digital Media Evidence Retention and Management**

- A. Pilots shall process all evidence obtained through a UAS in the same manner as all digital evidence prepared by the Elizabeth Police Department.

- B. All images recorded by agency UAS are the sole property of the Elizabeth Police Department. The sharing of pictures, videos, and collected data shall be per agency orders, rules, and regulations.
  
- C. All digital media evidence shall be handled per the provisions of the New Jersey Division of Archives and Records Management