Clayton County Police Department

PROCEDURES

Subject **Unmanned Aircraft Systems / Vehicles / Drones**			Procedure # **D33**
Authorizing Signature	Effective **06-12-2020**	☒ New ☐ Amended ☐ Rescinds	Total Pages **12**

I. PURPOSE

The purpose of this policy is to establish the authorized use and operational guidelines for Unmanned Aircraft Systems / Vehicles / Drones (UASs / UAVs) program that is a function of the Special Enforcement and Training Division.

II. POLICY

This policy is designed to minimize risk to people, property, and aircraft during the operation of the UAS / UAV while continuing to safeguard the right to privacy of all persons. The purpose of the UAS / UAV is to provide air support to the Clayton County Police Department and other county departments as needed and in applications where traditional air support from the Aviation Unit may not be practical. Because of continually evolving FAA Rules and Regulations, this Order is subject to change to comply with State and Federal laws.

III. DEFINITIONS

Certificate of Authorization (COA): COA is an authorization issued by the FAA to a public operator for a specific UAS. After a complete application is submitted, the FAA conducts a comprehensive operational and technical review. If necessary, provisions or limitations may be imposed as part of the approval to ensure the UAS can operate safely with other airspace users. The Clayton County Police Department has been issued a Nationwide / Jurisdictional COA (application pending).

Defined Incident Perimeter: A defined perimeter to be determined based on the scope of the operation and a defined operational ceiling at or below 400 feet Above the Ground (AGL).

Federal Aviation Administration (FAA): A governmental body of the United States with powers to regulate all aspects of civil aviation in that nation as well as over its surrounding international waters.

Fly-Away: A drone flyaway occurs when the radio link between the drone and the flight controls and pilot is interrupted or completely lost, making it difficult or impossible to control the drone. Possible outcomes are the drone may either crash into a structure, tree or ground or fly away out of sight of the pilot.

Night Flight: Night flight is defined as the flight of a UAS between the end of evening civil twilight and the beginning of morning civil twilight. This is approximately 30 minutes after sunset and approximately 30 minutes before sunrise. The times of sunset, sunrise and civil twilight are determined by the National Oceanic and Atmospheric Administration (NOAA)

Pilot in Command (PIC): The individual responsible for the overall flight operations for a specific mission.

Pre-Flight Briefing: A briefing led by the PIC prior to aircraft launch.

Program Coordinator (PC): The individual responsible for assisting the Special Enforcement and Training Commander with administrative functions related to the UAS program, including maintaining a current list of all certified crewmembers to include Pilots and Observers. The PC is responsible for maintaining the training records for crewmembers. The PC is also responsible for the condition, maintenance, and flight records of the UAS(s) and its associated equipment as required by the FAA. The Aviation Unit Commander, or his designee, will serve as the PC.

Unmanned Aircraft System / Vehicle (UAS / UAV) / Drone: An aircraft without the possibility of direct human intervention from within or on board the aircraft. Its flight is controlled either autonomously by computers in the aircraft or under the remote control of a pilot on the ground or in another vehicle. The terms UAS, UAV and Drone are used interchangeably throughout this policy.

Visual Observer: The individuals trained to maintain the line-of-sight and 360 degree hazard awareness around the UAS at all times and assist the PIC in carrying out all duties required for the safe operation of the UAS.

IV. TRAINING

A. FAA Training Requirements

Training will comply with FAA requirements for both Pilots In Command (PIC's) and Visual Observers (VO's). All PIC's shall obtain training from the UAV Program Coordinator or their designee and the training shall be documented for FAA reporting purposes. All VO's should complete sufficient training to communicate to the PIC any information required to remain clear of conflicting traffic, terrain, and obstructions, maintain proper cloud clearances, and provide navigational awareness. Someone that holds a Part 107 Remote Pilot certificate and is a POST certified instructor shall provide all training. This training for both the PIC's and VO's, at minimum, must include knowledge of the responsibilities in complying with the requirements of:

1. FAA Section 91.3, Responsibility and authority of the pilot in command.
2. FAA Section 91.13, Careless or reckless operation.
3. FAA Section 91 .17, Alcohol or drugs.
4. FAA Section 91 .103, Preflight actions.
5. FAA Section 91.111, Operating near other aircraft.
6. FAA Section 91.113, Right-of-way rules: Except water operations.
7. FAA Section 91 .115, Right-of-way rules, Water Operations.
8. FAA Section 91 .119, Minimum Safe altitudes: General.
9. FAA Section 91 .123, Compliance with ATC clearances and instructions.
10. FAA Section 91.133, Restricted and prohibited areas.
11. FAA Section 91 .137, Temporary flight restrictions in the vicinity of disaster/ hazard areas.
12. FAA Section 91 .145, Management of aircraft operations in the vicinity of aerial demonstrations and major sporting events.
13. FAA Section 91 .151, Fuel requirements for flight in VFR conditions.
14. FAA Section 91.155, Basic VFR Weather Minimums.
15. FAA Section 91.159, VFR cruising altitude or flight level.
16. FAA Section 91.209, Aircraft Lights.
17. FAA Section 91.213, Inoperative instruments and equipment.
18. FAA Section 91.215, ATC transponder and altitude reporting equipment and use.
19. Appendix D to part 91- Airports/ Locations: Special Operating Restrictions.
20. FAA Part 107
21. Air Traffic and radio communications, including the use of approved air traffic control (ATC) / pilot phraseology.
22. Appropriate sections of the Aeronautical Information Manual. (AIM)

Each PIC will conduct at least three (3) takeoffs and three (3) landings every 90 days to maintain currency. In the event that a PIC loses his currency, he will perform three (3) takeoffs and three (3) landings before participating in a mission. Training flights shall be documented and kept on file for review/inspection by the FAA.

UAS Unit Training: Training will be as needed to maintain currency and proficiency.

B. Pilot-In-Command (PIC) Training

Initially, all personnel selected to be pilots that will be flying law enforcement missions shall be properly trained utilizing the FAA approved materials. This training includes videos produced by the manufacturer to include flying/operating the UAS. All approved department pilots shall hold and maintain a current Remote Pilot certificate with a small unmanned aerial systems rating issued by the FAA under part 107.

Any pilot that does not have documented training or flight time for 180 days or more is required to be retrained by a department UAS instructor. This training shall include a minimum of one (1) hour of ground instruction and flight time, including making three (3) take-offs and landings to demonstrate proficiency.

C. Visual Observer (VO) Training

If able, all VOs should receive annual in-service training in the requirements of acting as an observer on UAS flights (Training, Paragraph A). If a previously trained VO is not available for a flight, the PIC has the discretion to provide the minimum training to another officer on scene to act as an observer for that UAS operation. This shall include, at a minimum, the requirements for communicating to the PIC any traffic conflicts, weather or cloud conflicts, minimum safe altitudes or any other item that relates to the safety of that operation. If the PIC is not satisfied that the VO can safely assist the PIC with the operation, the PIC shall not operate the UAS.

V. PRE-FLIGHT

A. Weather and NOTAMS

1. Pre-Flight review of current and forecast weather conditions will be conducted by the PIC prior to every launch of the UAV. Visibility must be at least (3) three statute miles. This data can be obtained by visiting the website: **https://www.1800wxbrief.com**/. The four (4) letter airport code will be KATL (Atlanta International Airport) for flights in the north end of the county or KHMP (Henry County airport) for flights in the south end of the county.

2. The PIC must also check notices to Airmen (NOTAMs) and temporary flight restrictions (TFRs). This information can be obtained from the website: https://notams.aim.faa.gov/notamSearch/nsapp.html#/

B. Flight Parameters

1. Review of the flight's goals and expected outcomes.

2. Identification of mission limitations and safety issues such as battery strength, GPS strength, and potential for radio interference.

3. Review of proposed flight area, including maximum ceiling and floor.

4. Review of communication procedures between PIC, VO, and other personnel used to support the mission. PIC, VO, and any other personnel used in the support of the mission will keep cell phones on hand with the phone number of local Air Traffic Control in the event of a fly-away or other flight emergency.

5. Review of emergency/contingency procedures including aircraft system failure, flight termination, divert, and lost link procedures.

C. Aircraft Safety Inspection

1. Ensure that all blades are secure and in condition for flight.

2. Check to ensure that landing gear is not damaged. If the landing gear is damaged, the UAS will not be flown.

3. Check battery status. If the battery is not sufficiently charged for the flight, UAS will not be flown.

4. Once in the air, the UAV will only be flown until battery power is at 20 percent. Once the power is lower than 20 percent, the UAV must be landed and battery pack swapped out for a fully charged battery.

5. UAV will be set up in automatic landing mode at all times.

VI. OPERATION OF THE UAV

A. Visual Flight Rules

All flights with the UAV should be conducted under visual flight rules (VFR) conditions and at an altitude below 400 feet AGL. VFR is defined as a three (3) statute miles of surface visibility and a cloud ceiling of 1,000 AGL. The

PIC may operate the UAV in less than VFR conditions if he/she determines the flight can be operated safely in the existing conditions.

B. Administration and use of UAV: All deployments of UAVs shall be authorized by **supervisory** personnel, be in state and federal legal and regulatory compliance, as well as in compliance with the policy and procedures defined herein. UAVs may be used for the following purposes, which may be updated:

1. Situational awareness: To assist decision-makers in understanding the nature, scale or scope of an incident and for planning and coordinating an effective response.

2. Search and rescue: To assist in missing person investigations and other search and rescue missions.

3. Tactical deployment: To support the positioning of officers and equipment in emergency situations, such as incidents involving hostages and barricades, and other temporary perimeter security situations.

4. Visual perspective: To provide an aerial perspective to assist officers with directing crowd control, traffic, special circumstances, and temporary perimeter security.

5. Scene documentation: To document a crime scene, accident scene, or other major incident scene.

6. Agency assistance: To assist another government agency not possessing a UAV, with situational awareness, search and rescue, tactical deployment, visual perspective, or scene documentation.

7. Public demonstration: To educate the public regarding the law enforcement use of UAV.

8. Training: To assist remote pilots and aircrews in maintaining proficiency in operation skills of UAS's.

C. All missions will be flown in accordance with FAA regulations 14 CFR Part 107 or as specified in the COA and current FAA National Policy regarding UAS Operational Approval.

D. Maintenance: UAS maintenance is the responsibility of the Program Coordinator in accordance to manufacturer recommendations. If maintenance outside of routine is performed, a test flight shall be conducted and documented prior to the UAV being returned to service.

E No Payloads: No payload will be used on a UAS, other than equipment approved and installed by the manufacturer, operated by Clayton County Police. Weapons and dispersal payloads will not be used.

F Storage: UAS shall be assigned to approved pilots and kept in the provided carrying case when not in use.

G. Operations within the vicinity of any airport or heliport shall be conducted under Part 107 or as specified in our COA.

H. No flights will be attempted when:

1. In violation of FAR Part 107 or as specified in our COA.

2. Sleet, hail, freezing rain and/or snow is present or forecasted, winds over 20 mph.

3. During severe thunderstorms.

4. UAV will not be operated at less than 200 feet below or at less than 2000 feet horizontal from clouds.

I. No PIC or VO may engage in, or allow, any activity during a critical phase of flight which could:

1. Distract any crewmember from the performance of his/her duties.

2. Interfere in any way with the proper conduct of those duties.

J. The use of cell phones or other electronic devices is restricted to communications pertinent to the operational control of the UAV and any required communications with Air Traffic Control.

K. The PIC is responsible:

1. To remain clear and give way to all manned aviation operations and activities at all times.

2. For the safety of persons or property on the surface with respect to the UAV operation.

3. For ensuring that there is a safe operating distance between aviation activities and the UAV at all times.

4. For operating in compliance with CFR parts 91.111 and 91.113.

5. For ensuring all paperwork pertaining to the mission (both police department and FAA) is completed and logged.(If an incident report is generated by UPD, CID, SWAT, etc., the case number assigned to that report can be utilized by the PIC).

A. The PIC is responsible to ensure that any visual observer (VO):

1. Can perform their duties.

2. Are able to see the UAV and the surrounding airspace throughout the entire flight.

3. Are able to provide the PIC with the UAV's flight path and proximity to all aviation activities and other hazards (e.g., terrain, weather, structures) sufficiently for the PIC to exercise effective control of the UAV to prevent the UAV from creating a collision hazard.

B. A visual observer must be used at all times and must maintain instantaneous communication with the PIC. Electronic messaging or texting is not permitted during flight operations.

C. Visual observers must be able to communicate clearly to the PIC any instructions required to remain clear of conflicting air traffic.

D. The UAV must not be operated in restricted areas, prohibited areas or special flight rule areas or in temporary flight restrictions (TFRs). Such areas are depicted on charts available at https://tfr.faa.gov/tfr_map_ims/html/

E. The UAV will be registered prior to operations in accordance with Title 14 of the Code of Federal Regulations.

VII. UAV ACTIVATION

A. Typically, activation of DRONE/UAV will be requested by an on-scene supervisor through chain of command and authorized by the concerned Division Commander.

B. A supervisor or officer on the scene of a critical and/or high-risk incident may activate DRONE/UAV without the authorization of the concerned Division Commander, but only when exigent circumstances dictate that the chain of command would be immediately detrimental to the safe resolution of the incident.

C. Notifications

Upon activation of DRONE/UAV, the E911/Communications Center will make all required notifications.

VIII. DOCUMENTATION

A. Documentation of all UAS training and mission flight time shall be documented by completing a flight log and it will be kept on file for review /inspection by the FAA. At a minimum, the log shall include the date, time, location, PIC's name, Observer's name, flight time, and whether the flight is a training or mission flight. The log must also include the PD case number of the report related to the mission. Mission flights will be categorized by the type of mission such as missing person or call out. If the UAS is used for a mission with an outside agency, it will be documented as such on the flight log. The PIC will be responsible for insuring all police reports (incident reports/supplemental reports) pertaining to in county and out of county missions are documented.

B. Video data/mobile recording shall be at the discretion of the PIC. All recordings shall be managed, documented and stored in accordance with, *CCPD SOP B21, Vehicles – Equipment Maintenance & Specialized*.

C. Reporting Requirements

1. Documentation of all operations associated with UAV activities is required regardless of the airspace in which the UAV operates. This will include Training Missions and Investigative Missions.

2. The PC or designee will be responsible for ensuring all required information is submitted to the FAA as required by the COA. The Clayton County Police Department must submit the following information on a monthly basis to 9-AJV-115-UASOrganization@faa.gov:

   a. Name of the pilot and aircraft registration number
   b. UAV type and model
   c. All operating locations to include city name and latitude/longitude
   d. Number of flights (per location, per aircraft)
   e. Total aircraft operation hours
   f. Takeoff or landing damage
   g. Equipment malfunction. Required reports include but are not limited to, failures or malfunctions to the:
      i. Control station
      ii. Electrical system
      iii. Fuel system
      iv. Navigation system
      v. On-board flight control system

vi. The number and duration of lost link events (control, performance and health monitoring, or communications) per UAV, per flight.

3. All in flight accidents and incidents involving fatalities, injuries, property damage, and fly-a-ways shall be reported to the PC or his designee immediately. Any FAA reporting shall be completed as required by regulation.

4. If there is an accident or mishap involving the UAS and it meets the criteria below, and within 24 hours of that incident, accident or event described below, the pilot must provide initial notification of the following to the FAA via email to: 9-AJV-115-UASOrqanization@faa.qov and via the UAS COA On-Line forms (Incident/Accident). All accidents/mishaps involving UAV operations where any of the following occurs:

   a. Fatal injury, where the operation of the UAV results in death occurring within 30 days of the accident/mishap.

   b. Serious injury, where the operation of a UAV results in:

      i. Hospitalization for more than 48 hours, commencing within seven (7) days from the date of the injury was received.

      ii. A fracture of any bone (except simple fractures of fingers. toes, or nose).

      iii. Severe hemorrhages, nerve, muscle, or tendon damage.

      iv. An injury involving any internal organ.

      v. Involves second-or third-degree burns or any burns affecting more than five (5) percent of the body surface.

   c. Total aircraft loss of UAV.

   d. Substantial damage to the UAV where there is damage to the airframe, power plant, or onboard systems that must be repaired prior to further flight.

   e. Damage to property, other than the UAV.

   f. Any incident/mishap that results in an unsafe/abnormal operation including but not limited to:

      i. A malfunction or failure of the UAV aircraft's on-board flight control system (including navigation).

ii. A malfunction or failure of ground control station flight control hardware software (other than loss of control link).

iii. A power plant failure or malfunction.

iv. An in-flight fire.

v. An aircraft collision involving another aircraft.

vi. Any in-flight failure of the UAV's electrical system.

vii. A deviation from provisions contained in the COA.

viii. A deviation from an ATC clearance and/or Letter(s) of Agreement/Procedures.

g. A lost control link event resulting in:

i. Fly-away

ii. Execution of a pre-planned/unplanned lost link procedure.

5. Initial reports must contain the information identified in the COA On-Line Accident/Incident Report. Follow-up reports describing the accident/incident mishap(s) must be submitted by providing copies of proponent aviation accident/incident reports upon completion of safety investigations. Civil operators and Public-use agencies (other than those which are part of the Department of Defense) are advised that the above procedures are not a substitute for separate accident/incident reporting required by the National Transportation Safety Board under 49 CFR Part 830 830.5.

VII. MAINTENANCE

To ensure that the UAV continues to offer optimal performance and to ensure flight safety, maintenance will be in accordance with manufacturer's specifications and will be documented on the maintenance log to meet any FAA requirements.

VIII. CALL OUTS

A. Pilots and Visual Observers are subject to call outs for the SWAT team, special operations and for mutual aid requests.

B. Pilots and Visual Observers will be subject to call out on a 24 hour, 365 days per year basis.

C. Dispatch will notify the Pilots and Visual Observers on call when a request is made by a Sergeant or above.

IX. SWAT/ SPECIAL OPERATIONS/ MUTUAL AID ASSISTANCE

A. Pilots and Visual Observers assigned to the UAS operations may be utilized to augment SWAT, Special Operations or outside agencies. As such, they will be expected to abide by all applicable Clayton County Police Department policies, procedures and FAA guidelines. As Pilots and Visual Observers act in a support capacity, the on-scene Tactical Commander will assume operational control of any situation requiring the deployment of UAS operations.

B. The Chief of Police, or his/her designee, must approve all requests for mutual aid to other agencies and special requests. When deploying for mutual aid requests, Clayton County Police Department policies, procedures, and FAA guidelines for the UAS operations and not those of the outside agency, will be followed.

X. OPERATIONS CONTROL/ CONFLICT OF ORDERS

A. The PIC of the UAS is directly responsible for and is the final authority as to, the operation of the UAS. If the PIC is requested by a Supervisor or Tactical Commander to deploy a UAS in a manner that the PIC feels is unsafe for flight conditions, the PIC will inform the Supervisor or Tactical Commander of this by stating the reason(s) for concern and then cancel the UAS operation.

B. Under no circumstance will a PIC comply with an order that he/she knows to be unsafe, illegal or violates any FAA guidelines.