

# Unmanned Aerial System

## 606.1 PURPOSE AND SCOPE

The purpose of this directive is to establish guidelines and procedures governing the utilization of the Crestwood Police Department's unmanned aircraft system (UAS) and for the storage, retrieval and dissemination of images and data captured by the UAS.

### 606.1.1 DEFINITIONS

1. Digital Multimedia Evidence (DME): Digital recording of images, sounds, and associated data.
2. Unmanned Aircraft (UA), Drone, or Unmanned Aerial Vehicle (UAV): An aircraft that is intended to navigate in the air without an on-board pilot.
3. Unmanned Aircraft System (UAS): A system that includes the necessary equipment, network, and personnel to control an unmanned aircraft.
4. Unmanned Aircraft Systems Coordinator (UASC): Sworn member of the Crestwood Police Department responsible for overseeing the Unmanned Aircraft System Program.
5. UAS Flight Crew member: A visual observer or other person assigned duties for a UAS for the purpose of flight or training exercise.
6. Remote Pilot in Command (RPIC): A person exercising control over a UA/UAV/UAS during flight.

## 606.2 POLICY

It is the policy of the Crestwood Police Department that, a UAS may be utilized to enhance the department's mission of protecting lives and property when other means and resources are not available or are less effective. Any use of a UAS will be in strict accordance with constitutional and privacy rights and Federal Aviation Administration (FAA) regulations. Only duly trained and authorized agency personnel may deploy and pilot small unmanned aircraft system(s) when such use is appropriate in the performance of their official duties or training, and where deployment and use, and the collection and use of any audio/video recordings or other data originating from or generated by the small unmanned aircraft system(s), conform with the policy provisions provided herein and applicable law (Freedom from Drone Surveillance Act (725 ILCS 167)).

## 606.3 PRIVACY

The use of the UAS potentially involves privacy considerations. Absent a warrant or exigent circumstances, operators and observers shall not intentionally record or transmit images of any location where a person would have a reasonable expectation of privacy (e.g., residence, yard, enclosure). Operators and observers shall take reasonable precautions to avoid inadvertently recording or transmitting images of areas where there is a reasonable expectation of privacy. Reasonable precautions can include, for example, deactivating or turning imaging devices away from such areas or persons during UAS operations.

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#### **606.4 PROGRAM COORDINATOR**

The Chief of Police will appoint a program coordinator who will be responsible for the management of the UAS program. The program coordinator will be licensed in accordance with FAA regulations and ensure that policies and procedures conform to current laws, regulations, and best practices and will have the following additional responsibilities:

- A. The maintaining and renewing of any FAA Certificate of Authorization (COA) shall be the responsibility of the USAC.
- B. The UASC shall ensure that officer's equipped with small unmanned aircraft system device(s) utilize them in accordance with policy and procedures defined herein.
- C. The UASC will audit flight documentation at regular intervals.
  - 1. The results of the audit and any changes to the flight time counter will be documented by memorandum. All official flights will be documented in a case or supplemental report by the RPIC pilot.
- D. The UASC will be responsible for conducting semi-annual inspections of the equipment and report any damage discovered, missing equipment, and the need for maintenance or replacement parts to the Division Chief of Patrol Division.
- E. The UASC shall report in writing on an annual basis and by April 1 of each year to the Illinois Criminal Justice Information Authority of the number of small unmanned aircraft systems that the Crestwood Police Department owns (725 ILCS 167/35).

#### **606.5 USE OF UAS**

- A. The Crestwood Police Department shall obtain applicable authorizations, permits, or certificates required by the Federal Aviation Administration (FAA) prior to deploying or operating the small unmanned aircraft system, and these authorizations, permits, and certificates shall be maintained and current by the department UASC.
- B. The small unmanned aircraft system will be operated only by RPIC Aircraft Pilot(s) who have been licensed, trained and certified in the operation of the system.
- C. Only certified personnel shall inspect and test small unmanned aircraft system equipment prior to each deployment to verify the proper functioning of all equipment and the airworthiness of the device.
- D. The unmanned aircraft system equipment is the responsibility of RPIC Flight Crew member and will be used with reasonable care to ensure proper functioning.
  - 1. Equipment malfunctions shall be brought to the attention of the Unmanned Aircraft Systems Coordinator (USAC).
  - 2. Damage to UAS will be reported by department memorandum to the USAC and Commander of Patrol Division within 24 hours of such damage occurring.

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E. The small unmanned aircraft system equipment and all data, images, video, and metadata captured, recorded, or otherwise produced by the equipment is the sole property of the department and will be stored in the departments digital images drive.

F. Official deployments will be documented in an applicable written report, and all flight time shall be accurately recorded.

1. Each deployment of the small unmanned aircraft system shall include information regarding the reason for the flight; the time, date, and location of the flight;
2. The name of the supervisor approving the deployment and the staff assigned; and
3. A summary of the activities covered, actions taken, and outcomes from the deployment.
4. Training deployments will be logged in the UAS training logged book maintained by the UASC.

G. Except for those instances where officer safety or investigation could be jeopardized and where reasonably possible and practical, the department will notify the public in the general area of the deployment. This may be accomplished by the Crestwood Police Department social media presence or reverse 911.

#### 606.5.1 DEPLOYMENT PROCEDURES

A. All deployments of small unmanned aircraft system must be specifically authorized by the Chief of Police, his designee or a sworn supervisor.

B. The small unmanned aircraft system shall be deployed and used only to support official law enforcement and public safety missions.

C. In accordance with Freedom from Drone Surveillance Act (725 ILCS 167), the Crestwood Police Department use of a small unmanned aircraft system to gather information is prohibited unless it meets one or more of the following criteria:

1. To counter a high risk of a terrorist attack by a specific individual or organization if the United States Secretary of Homeland Security determines that credible intelligence indicates that there is that risk.
2. The department has first obtained a search warrant based on probable cause issued under 108-3 of the Code of Criminal Procedure of 1963.
  - a. The warrant must be limited to a period of 45 days, renewable by the judge upon a showing of good cause for subsequent periods of 45 days.
3. The department possesses reasonable suspicion that, under particular circumstances, swift action is needed to prevent imminent harm to life, or to stall the imminent escape of a suspect or

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the destruction of evidence. The use of a small unmanned aircraft system is limited to a period of 48 hours. Within 24 hours of the initiation of the use of a small unmanned aircraft system, the Chief of Police must report in writing the use of a small unmanned aircraft system to the local State's Attorney,

4. To assist missing person investigations, AMBER Alerts, Silver Alerts and is not undertaking a criminal investigation.

5. The department is using a small unmanned aircraft system solely for crime scene and traffic crash scene photography. Crime scene and traffic crash photography must be conducted in a geographically confined and time-limited manner to document specific occurrences.

a. The use of a small unmanned aircraft system under this paragraph (5) on private property requires either a search warrant based on probable cause under Section 108-3 of the Code of Criminal Procedure of 1963 or lawful consent to search.

b. The use of a small unmanned aircraft system on lands, highways, roadways, or areas belonging to this State or political subdivisions of this State does not require a search warrant or consent to search.

c. The department shall make every reasonable attempt to only photograph the crime scene or traffic crash scene and avoid other areas.

6. The department is using an unmanned aircraft system during a disaster or public health emergency, as defined by Section 4 of the Illinois Emergency Management Agency Act.

a. The use of a small unmanned aircraft system does not require an official declaration of a disaster or public health emergency prior to use.

b. The department may use a small unmanned aircraft system to obtain information necessary for the determination of whether or not a disaster or public health emergency should be declared, to monitor weather or emergency conditions, to survey damage, or to otherwise coordinate response and recovery efforts.

d. The use of a small unmanned aircraft system is permissible during the disaster or public health emergency and during subsequent response and recovery efforts.

7. The UAS video surveillance equipment shall not be used:

a. To conduct random surveillance activities.

b. To target a person based solely on actual or perceived characteristics such as race, ethnicity, national origin, religion, sex, sexual orientation, gender identity or expression, economic status, age, cultural group, or disability.

c. To harass, intimidate, or discriminate against any individual or group.

d. To conduct personal business of any type.

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e. The UAS shall not be weaponized (725 ILCS 167 /18).

#### 8. Privacy

a. Absent a warrant or exigent circumstances, operators and observers shall not intentionally record or transmit images of any location where a person would have a reasonable expectation of privacy (e.g., residence, yard, enclosure). Operators and observers shall take reasonable precautions to avoid inadvertently recording or transmitting images of areas where there is a reasonable expectation of privacy. Reasonable precautions can include, for example, deactivating or turning imaging devices away from such areas or persons during UAS operations.

b. Facial recognition software on board a UAS shall not be used during a flight (725 ILCS 167 /17). Use of facial recognition software to evaluate information gathered by a UAS is permissible only under those circumstances described in 725 ILCS 167/17.

#### **606.6 NIGHT TIME OPERATIONS**

A. The primary takeoff/landing area will have a perimeter marked with four (4) illuminated orange cones or flares in a perimeter of 30 feet surrounding the illuminated landing pad.

B. During any flight operations that take place during the night, the flight crew will consist of a PIC (pilot-in command) and a VO (visual observer).

C. No persons are to be inside of the perimeter without the authorization of the RPIC.

D. The UAS will be flown within line-of-sight by the RPIC for the entire duration of the flight.

1. The RPIC and VO will maintain communication by direct contact, police radio systems, or cellular telephone at all times.

2. At no time will the RPIC continue flight operations if the UAS is not in the line of sight and are unable to determine its position, orientation, altitude or the environment around the UAS.

3. The RPIC and VO will be familiar with the minimum safe altitudes and weather conditions and determine any structures or hazards prior to flight operations taking place.

4. Safe alternate landing area will be identified in the event the UAS cannot be recovered to the takeoff point.

5. The UAS shall be equipped with lights that are visible 360 degrees for a minimum of 3 statute miles at night.

E. The RPIC will utilize a visual camera when operating an illuminated area, or when operating with an installed spotlight system that illuminates the ground, or FLIR camera when so equipped.

F. All UAS drone operators will be briefed on and familiar with night vision physiology and common night vision illusions:

1. Darkness adaptation: 30-45 minutes to adapt, loss of adaptation with exposure to momentary bright light.

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2. Central blind spot: Understand of the importance of off-centered viewing of objects at night.
3. Visual scanning techniques: Deliberate pausing at each direction and importance of peripheral vision to detect motion.
4. Empty-field myopia: Loss of detail acuity due to lack of objects to focus on beyond 20 feet.
5. Auto kinesis: Apparent movement of an object when the object is stared at for a length of time.
6. Flicker vertigo: Disorientation due to flashing light stimulus in fog or haze conditions.

G. In the event of a lost control link, the UAS is equipped with a GPS enabled return-to-home (RTH) system that will record the initial takeoff location for automated return, and landing if required.

H. If another aircraft, UAS or manned, is encountered during flight operations occurring at night, the UAS will immediately be maneuvered by the PIC to position that does not cause hazard to the other aircraft, persons or vehicles on the ground or any structure.

I. Prior to being authorized to conduct night operations, the UAS drone pilot must satisfactory complete a training program.

#### **606.7 FEDERAL AVIATION ADMINISTRATION (FAA) OPERATIONAL LIMITATIONS**

A. Flight operations shall be visual line-of-sight (VLOS) only.

1. At all times, the small unmanned aircraft must remain close enough to the operator or visual observer (VO) to see the aircraft with vision unaided by any device other than corrective lenses.

B. The small unmanned aircraft may not operate over any person(s) not directly involved in the operation.

C. Daylight operations (official sunrise to official sunset, local time) are only authorized unless nighttime waiver acquired.

D. The small unmanned aircraft must yield right-of-way to other aircraft, manned or unmanned.

E. The use of a VO is authorized but not required.

F. First-person view camera cannot satisfy "see-and-avoid" requirement but can be used as long as requirement is satisfied in other ways.

G. The small unmanned aircraft shall not exceed a maximum airspeed of 100 mph (87 knots).

H. The small unmanned aircraft must remain below an altitude of 400 feet above ground level.

I. The small unmanned aircraft system shall only operate when the minimum weather visibility is 3 miles or greater from the control station.

J. No UAS Flight Crew member may operate more than one unmanned aircraft operation at one time.

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K. A preflight inspection of the small unmanned aircraft by a UAS Flight Crew member is required before flight.

L. UAS Flight Crew members must stay out of airport flight paths and restricted airspace areas, and obey any FAA Temporary Flight Restrictions (TFRs) (<http://tfr.faa.gov/tfr2/list.html> or 1-800-WX-BRIEF).

M. All UAS operations shall take place in In Class G Airspace; and

N. Shall not operate within five (5) nautical miles (NM) from an airport having an operational control tower; or

O. Three (3) NM from an airport having a published instrument flight procedure, but not having an operational control tower; or

P. Two (2) NM from an airport not having a published instrument flight procedure or an operational control tower; or

Q. Two (2) NM from a heliport.

#### **606.8 PROHIBITED USE**

The UAS video surveillance equipment shall not be used:

- To conduct random surveillance activities.
- To target a person based solely on actual or perceived characteristics such as race, ethnicity, national origin, religion, sex, sexual orientation, gender identity or expression, economic status, age, cultural group, or disability.
- To harass, intimidate, or discriminate against any individual or group.
- To conduct personal business of any type.

A. The small unmanned aircraft shall not be operated in an unsafe manner, in violation of the Freedom from Drone Surveillance Act (725 ILCS 167/) and/or FAA rules.

B. The small unmanned aircraft shall not be equipped with weapons of any kind.

C. The small unmanned aircraft shall not be modified in any manner from the manufacture's specifications or fitted with additional equipment without the authorization of the Chief of Police or his designee.

#### **606.9 RETENTION OF UAS INFORMATION**

The Office of the Police Clerk supervisor shall destroy all information gathered by the UAS within the timeframe specified by law (725 ILCS 167/20).

Information may be retained by a department supervisor when (725 ILCS 167/20):

- (a) There is reasonable suspicion that the information contains evidence of criminal activity.

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- (b) The information is relevant to an ongoing investigation or pending criminal trial.
- (c) The information will be used exclusively for training purposes and all personally identifiable information has been removed from it.
- (d) The information contains only flight path data, metadata, or telemetry information of the UAS.

#### A. Retention

1. All DME shall be securely downloaded at the completion of each official deployment. The small unmanned aircraft system certified operators will record information for each file that shall include the date; time, location, and case report number(s) and identify the small unmanned aircraft system operator(s) involved in the mission.
2. If the department uses a small unmanned aircraft system the department within 30 days shall destroy all information gathered by the small unmanned aircraft system, except that a supervisor may retain particular information if:
  - a. There is reasonable suspicion that the information contains evidence of criminal activity, or
  - b. The information is relevant to an ongoing investigation or pending criminal trial (725 ILCS 167/20).

#### B. Disclosure

1. If the department uses a small unmanned aircraft system, the department shall not disclose any information gathered by the small unmanned aircraft system, except that a supervisor may disclose particular information to another government agency, if:
  - a. Reasonable suspicion is established that the information contains evidence of criminal activity, or
  - b. The information is relevant to an ongoing investigation or pending criminal trial (725 ILCS 167/25).
- C. Officers shall not edit, alter, duplicate, copy, share, or otherwise distribute in any manner small unmanned aircraft system DME without prior authorization and approval of the Chief of Police or his designee.

### **606.10 TRAINING**

A. Police personnel who are assigned small unmanned aircraft system must complete a department approved training program to ensure proper use and operations.

1. All training flight operations will take place on public property and the recording of any flight data shall be for the sole purpose of gaining an understanding of the features of the unmanned aircraft system.

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B. Additional training may be required at periodic intervals to ensure the continued effective use and operation and proper calibration and performance of the equipment and to incorporate changes, updates, or other revisions in policy and equipment.

C. All department personnel with small unmanned aircraft system responsibilities shall also be trained in the local and federal laws and regulations, as well as policies and procedures governing the deployment and use of the small unmanned aircraft system(s).

#### **606.11 REPORTING**

A. The USAC shall provide an annual report to the Chief of Police outlining the number of deployments in the field, locations of the incidents, applicable case report numbers, and any unusual circumstances surrounding the deployments during the preceding calendar year.

#### **606.12 DISCLOSURE OF UAS INFORMATION**

Information gathered during an inspection of the infrastructure of a designated building or structure shall be given, as soon as practicable, to the requesting local government agency before it is destroyed (725 ILCS 167/20).

The disclosure of information gathered by the UAS is prohibited except (725 ILCS 167/25):

- (a) To another government agency when there is reasonable suspicion that the information contains evidence of criminal activity or the information is relevant to an ongoing investigation or pending criminal trial.
- (b) Pursuant to a court order or subpoena in connection with a criminal proceeding.
- (c) In regard to a completed traffic crash investigation.

Available records of drone usage (e.g., flight path data, metadata, telemetry information of specific flights) may be disclosed subject to the Freedom of Information Act, 5 ILCS 140/1 et seq., and rules adopted under it (725 ILCS 167/25).

#### **606.13 COMPLIANCE WITH THE FREEDOM FROM DRONE SURVEILLANCE ACT**

If a determination is made that a member has violated the Act, the Department shall take prompt and appropriate action (e.g., training, discipline) (725 ILCS 167/45). If a determination is made that a UAS pilot has willfully violated the Act, the Department shall promptly remove the pilot from its UAS program and take other appropriate action (see the Personnel Complaints Policy) (725 ILCS 167/45).