

Unmanned Aerial System

605.1 PURPOSE AND SCOPE

The purpose of this policy is to establish guidelines for the use of an unmanned aerial system (UAS) and for the storage, retrieval and dissemination of images and data captured by the UAS.

605.1.1 DEFINITIONS

Definitions related to this policy include:

Certificate of Waiver or Authorization (COA) - The terms "certificate of authorization" or "certificate of waiver" mean a Federal Aviation Administration (FAA) grant of approval for a specific flight operation.

Crew Member - A person assigned to perform an operational duty during operations. A UAS crew member includes the remote pilot in command, person manipulating the controls, and visual observers, but may include other people as appropriate or required to ensure safe operation of the aircraft.

Federal Aviation Administration (FAA) - National aviation authority of the United States. As an agency of the United States Department of Transportation, it has the authority to regulate and oversee all aspects of American civil aviation.

Remote Pilot Certificate with a Small UAS Rating - A certificate issued under the Code of Federal Regulations ([14 C.F.R. Part 107](#)) to permit a person to operate a UAS weighing under 55 pounds as a civil aircraft.

Remote Pilot in Command (PIC) - A person who holds a remote pilot certificate with a small unmanned aircraft systems (sUAS) rating and has the final authority and responsibility for the operation and safety of a sUAS operation conducted under 14 CFR Part 107.

Small Unmanned Aircraft System (sUAS) - An unmanned aircraft typically weighing less than 55 pounds. An aircraft, either fixed-wing or rotor-wing, used in law enforcement missions, which flies in the national airspace and is controlled by pilots on the ground. Per Title 14 of the Code of Federal Regulations (14 CFR) Part 107, Small Unmanned Aircraft Systems, the sUAS must be registered with the FAA and have a gross weight of less than 55 lbs. The sUAS will be clearly marked.

Unmanned Aerial System (UAS) - An unmanned aircraft of any type that is capable of sustaining directed flight, whether preprogrammed or remotely controlled (commonly referred to as an unmanned aerial vehicle (UAV)), and all of the supporting or attached systems designed for gathering information through imaging, recording, or any other means.

Visual Line of Sight (VLOS) - The ability of the Remote Pilot in Command to see the aircraft at all times when in flight using the unaided eye with sufficient clarity to determine the aircraft's location, attitude, altitude, and direction of flight, and to avoid other aircraft or hazards.

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Visual Observer (VO) - Visual Observer (VO): A person who is designated by the PIC to supplement situational awareness and VLOS and assist with seeing and avoiding other air traffic or objects aloft or on the ground. The VO must be able to effectively communicate:

- The small UA location, altitude, and direction of flight.
- The position of other aircraft or hazards in the airspace.
- The determination that the UA does not endanger the life or property of another.

605.2 POLICY

Unmanned aerial systems 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.

605.3 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.

605.4 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 ensure that policies and procedures conform to current laws, regulations, and best practices and will have the following additional responsibilities:

- Coordinating the FAA Certificate of Waiver or Authorization (COA) application process and ensuring that the COA is current, and/or coordinating compliance with FAA Part 107 Remote Pilot Certificate, as appropriate for department operations.
- Ensuring that all authorized operators and required observers have completed all required FAA and department-approved training in the operation, applicable laws, policies, and procedures regarding use of the UAS.
- Developing uniform protocols for submission and evaluation of requests to deploy a UAS, including urgent requests made during ongoing or emerging incidents. Deployment of a UAS shall require written authorization of the Chief of Police or the authorized designee, depending on the type of mission.
- Coordinating the completion of the FAA Emergency Operation Request Form in emergency situations, as applicable (e.g., natural disasters, search and rescue, emergency situations to safeguard human life).

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- Developing protocols for conducting criminal investigations involving a UAS, including documentation of time spent monitoring a subject.
- Implementing a system for public notification of UAS deployment.
- Developing operational protocols governing the deployment and operation of a UAS including but not limited to safety oversight, use of visual observers, establishment of lost link procedures, and secure communication with air traffic control facilities.
- Developing a protocol for fully documenting all missions.
- Developing a UAS inspection, maintenance, and record-keeping protocol to ensure continuing airworthiness of a UAS, up to and including its overhaul or life limits.
- Developing protocols to ensure that all data intended to be used as evidence are accessed, maintained, stored, and retrieved in a manner that ensures its integrity as evidence, including strict adherence to chain of custody requirements. Electronic trails, including encryption, authenticity certificates, and date and time stamping, shall be used as appropriate to preserve individual rights and to ensure the authenticity and maintenance of a secure evidentiary chain of custody.
- Developing protocols that ensure retention and purge periods are maintained in accordance with established records retention schedules.
- Facilitating law enforcement access to images and data captured by the UAS.
- Recommending program enhancements, particularly regarding safety and information security.
- Ensuring that established protocols are followed by monitoring and providing periodic reports on the program to the Chief of Police.
- Maintaining familiarity with FAA regulatory standards, state laws and regulations, and local ordinances regarding the operations of a UAS.

605.5 USE OF UAS

All deployments of UASs 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.

- (a) Restrictions on the use of a UAS:
 - 1. Only authorized operators who have completed the required training shall be permitted to operate the UAS.
 - 2. Use of vision enhancement technology (e.g., thermal and other imaging equipment not generally available to the public) is permissible in viewing areas only where there is no protected privacy interest or when in compliance with a search warrant or court order. In all other instances, legal counsel should be consulted.
 - 3. UAS operations should only be conducted consistent with FAA regulations.

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4. Authorized agency/department/office personnel shall only deploy a UAS for a public safety purpose.
 5. Authorized agency personnel shall not deploy a UAS carelessly or recklessly or in violation of FAA rules governing use of UAS by governmental agencies or any other applicable state or federal law.
 6. No authorized agency personnel shall operate more than one UAS at a time.
- (b) Use of UAS: UASs may be used for the following purposes, which may be updated:
1. Training: To assist remote pilots and aircrews in maintaining proficiency in operation skills of UASs.
 2. Community Engagement: To educate the public regarding the law enforcement use of UAS.
 3. Agency assistance: To assist another government agency with situational awareness, search and rescue, tactical deployment, visual perspective, or scene documentation.
 4. Scene documentation: To document a crime scene, accident scene, or other major incident scene.
 5. Visual perspective: To provide an aerial perspective to assist officers with suspect searches, directing crowd control, traffic, special circumstances, and temporary perimeter security.
 6. Operational Support: To support the positioning of officers and equipment in emergencies, such as incidents involving hostages and barricades, and other temporary perimeter security situations.
 7. Search and rescue: To assist in missing person investigations and other search and rescue missions.
 8. Situational awareness: To assist decision-makers in understanding the nature, scale, or scope of an incident and for planning and coordinating an effective response.

605.6 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.
- The UAS shall not be weaponized.

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605.7 RETENTION OF UAS DATA

- (a) Data collected by the UAS shall be retained as provided in the established records retention schedule.
- (b) Data captured or recorded by UASs shall be the sole property of the agency.
- (c) Only data that is necessary for law enforcement purposes will be gathered and stored.
- (d) Information gathered from the use of a UAS will be protected in accordance with policy.
- (e) Requests for information gathered through the use of a UAS will be handled in accordance with policy.
- (f) Information gathered from a UAS will only be shared with other agencies for law enforcement purposes.
- (g) Retention of Records:
 - 1. Authorized personnel shall handle and store captured data in accordance with the public records policy for storing digital files and applicable statutes regarding, but not limited to, evidence, discovery, and disclosure pursuant to the Ohio Public Records Act at Ohio Revised Code (ORC) Section 149.43. Any requests for data disclosure should be reviewed by legal counsel.
 - 2. Authorized agency personnel shall securely download all captured data after each mission. Each data file shall be given a unique label, according to the agency's file classification system. The associated report shall include, but not be limited to, report and/or call number, date, time, location, involved personnel, and other mission identifiers.
- (h) Permitted Review of Data:
 - 1. Access to captured data must be specifically approved by authorized supervisory personnel and documented.
 - 2. Access records are to be audited regularly to ensure that only approved users are accessing the data for authorized purposes.
 - 3. Review of data will be authorized under the following terms:
 - (a) The Chief of Police or authorized supervisory personnel shall be permitted to review a copy of captured data for purposes of investigating alleged misconduct reports or meritorious conduct; whenever such data would be beneficial in reviewing the performance of the personnel who captured the data, or were involved with the incident depicted; and to determine whether data is of value as a training tool.
 - (b) The Chief of Police and other members of the department will be permitted to review a copy of captured data for purposes of conducting a criminal investigation; preparing for courtroom testimony or courtroom presentation; providing testimony pursuant to an administrative inquiry; assisting the officer in professional development; or to inform strategy related to the administration of the UAS.

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- (c) When a third party is authorized by the agency to capture data pursuant to a current COA or emergency COA, or any other method as an agent of the agency, the agent shall not be permitted to keep, independently access, edit, alter, erase, duplicate, share, or otherwise distribute a copy of captured data without the written consent of the Chief of Police or authorized supervisory personnel.
 - (d) The department shall be notified of data, as set forth previously, concerning any criminal investigation, and shall be permitted to review a copy of captured data as it pertains to that investigation.
 - (e) Retained data shall be stored in accordance with the minimum standards for such records required by the Ohio Public Records Act, ORC 149.43
 - (f) Non-evidentiary data, not relevant to a criminal investigation, emergency management, or mapping, shall be retained for a minimum of six months or in accordance with the records retention policy of the department.
- (i) If no extension of data retention is required, the data and any copies may be destroyed in accordance with the department's record retention and destruction procedures. Authorized supervisory personnel shall review all data scheduled for destruction. Data may be retained beyond the retention period if it contains significant historic information or may be beneficial to law enforcement in the future. If data is deemed useful as a training tool by authorized supervisory personnel, data can be retained for as long as needed and in compliance with the applicable records retention schedule.
- (j) No agency personnel may edit, alter, erase, duplicate, share, or otherwise distribute captured data in any manner externally, without prior written authorization and approval from authorized supervisory personnel. When approval is granted:
 - 1. Personnel shall document on a form or database designed for that purpose the requesting party and the rationale for determining whether to release a copy of captured data.
 - 2. Personnel shall document any changes or edits made to a copy of captured data and the rationale for doing so on a written form or database designed for that purpose. Changes or edits to a copy of captured data may be made to preserve the privacy of third-party individuals. The original data shall be stored and maintained in an unaltered state to maintain its integrity and metadata. Any alterations, erasures, redactions, or sharing of data shall be done using a copy of the original data file.
 - 3. A copy of captured data disclosed to a member of the public may only be edited upon advice of agency/department/office legal counsel for any reason, including preserving the privacy of individuals that are captured in the data when they have a reasonable expectation of privacy or for their safety.

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605.8 PROCEDURES

Officers certified to deploy the UAS should be aware of any Fourth Amendment protections before deploying the UAS. Officers will abide by all search and seizure regulations and search warrant requirements while deploying the UAS.

- (a) Procedures for use of a UAS: All deployments of UASs shall incorporate the following procedures to assure authorized use, safe operation, secure storage, and documentation:
 - 1. The agency shall consult with legal counsel regarding any search warrant. Authorized agency personnel shall obtain a search warrant when there is reasonable belief that the flight of a UAS or the collection of data may intrude upon a place and time when a person has a reasonable expectation of privacy, as assured by the U.S. Constitution and the Ohio Constitution.
 - 2. The agency must obtain applicable authorizations, permits, or certificates required by the FAA prior to deploying or operating the UAS, and these authorizations, permits, and certificates shall be maintained and current.
 - 3. UAVs shall be operated solely by authorized personnel duly trained and certified as a remote pilot by the FAA.
 - 4. Authorized agency personnel shall inspect and test UAVs prior to each deployment to verify general airworthiness and mission specific equipment functionality.
 - 5. Authorized agency personnel shall inspect crew fitness, lighting, line-of-sight, altitude, and weather conditions prior to each deployment to verify suitability for flight. Inspections shall conform to the following:
 - (a) Crew fitness: Authorized agency personnel shall conduct a preflight briefing at which they shall review the mission, goals, methods and procedures; UAV battery charge and Global Positioning System (GPS) strength; personnel communication procedures; emergency/contingency procedures, including but not limited to, UAV malfunction/failure, flight termination, flight diversion, and lost link procedures; contents of the COA, if applicable; radio frequency to be used; and takeoff and landing site, defined incident perimeter, and flight perimeter.
 - (b) Line-of-sight: Authorized agency personnel shall review the intended flight of UAVs for hazards prior to each deployment. Unless otherwise approved through the FAA, authorized agency personnel shall only deploy UAVs within the line of sight of the operator in an attempt to detect and avoid hazards such as aircraft, trees, and property.
 - (c) Altitude: All UAV flights shall be conducted at less than 400 feet above ground level unless otherwise noted in the COA or approved by the FAA in an emergency COA, or as permitted by other FAA regulations.
 - (d) Weather
 - i. Temperature: Authorized agency personnel shall only deploy UAVs when the temperature is within the parameters set forth by the

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operational guidelines of the UAV. Authorized agency personnel shall adjust UAV battery and flight length as necessary according to temperature.

- ii. Wind: Authorized agency personnel shall measure wind velocity prior to each deployment and shall only deploy UAVs when the wind velocity is within the parameters set forth by the operational guidelines of the UAV.
 - iii. Rain, snow, fog: Prior to deployment of a UAV, authorized agency personnel shall ascertain whether rain, snow, or fog may decrease visibility or operator safety. Authorized agency personnel may deploy UAVs if weather conditions do not prevent personnel from adhering to line-of-sight and minimum weather requirements.
6. Authorized agency personnel shall store UAVs in a secure manner as well as maintain and operate UAVs with proper care and in the event of an equipment malfunction, report it to authorized supervisory personnel as soon as possible, cease deployment immediately, and document it in a written report.
7. Authorized supervisory personnel shall coordinate maintenance, repairs, and updates of UAVs as well as coordinate on a regular basis with appropriate agency/department/office information technology staff regarding system-related issues.
8. Per federal regulation, authorized supervisory personnel shall inform local air traffic control, when applicable, of an impending flight or obtain a waiver of notice from local air traffic control at the issuance of the COA.
9. All UAV flights shall be documented on a form or database designed for that purpose and shall include, but not be limited to:
 - (a) The reason or purpose for the flight.
 - (b) Date, time, duration and location of the flight.
 - (c) Name of the supervisor approving the flight.
 - (d) List of staff members assigned to the flight.
 - (e) The summary of actions taken, and the activities and outcomes from deployment.
 - (f) A brief description of captured data and the storage location.

605.9 COMMAND STRUCTURE

- (a) Program Coordinator
 1. Is designated by the Chief of Police and has overall authority and responsibility for matters involving specified sUAS units.
- (b) Remote Pilot in Command (PIC)
 1. Respond to department requests for sUAS.

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2. Keep sUAS and all equipment in deployable working order.
 3. Documentation of all sUAS operations (i.e., training, live operations, maintenance, etc).
 4. Participate in mandatory sUAS training.
 5. Be familiar with applicable case law and rules that apply to the use of sUAS.
 6. Remain certified as a Remote PIC.
 7. Communicate with and submit document to the Program Coordinator, as applicable.
 8. The Remote PIC has the following authority and responsibility:
 - (a) Overall authority of sUAS operations.
 - (b) Initiating the flight only when confident the flight can be conducted safely.
 - (c) May terminate the flight for any reason believed to be hazardous to the operation, personnel, or public safety.
 - (d) Verifying that there is a COA from the FAA to conduct flights in the national airspace and that the flight is in accordance with the COA.
- (c) Visual Observer (VO)
1. The Observer has the following authority and responsibility:
 - (a) Responsible for see-and-avoid operations of the aircraft. The Observer will maintain contact with the Remote PIC and communicate any obstacles that the sUAS may encounter throughout the flight.
 - (b) When the flight becomes a hazard to ground personnel or other aircraft, the Observer will immediately notify the Remote PIC.
 - (c) During any phase of the flight, if the Observer notices a malfunction or emergency situation with the sUAS, the Observer will notify the Remote PIC of the situation and instruct the Remote PIC to immediately terminate the flight.
 - (d) Responsible for all radio communications in relation to the flight.

605.10 EQUIPMENT STANDARDS AND DOCUMENTATION

- (a) The Fairfield Township Police Department will furnish UASs and UAS-related equipment for operation.
- (b) UAS operators are responsible for the care and maintenance of the UAS.
 1. The PIC will be familiar with user-level maintenance.
 2. Only authorized replacement parts will be utilized for repair.
- (c) Any additional maintenance will be referred to the Program Coordinator, who will make the determination of the repair.

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- (d) At no time will a UAS in need of repair be used for operation flights.
- (e) Operators will complete all required documentation for UAS use (i.e., Drone Flight Log).
- (f) All documentation shall be submitted immediately following the completion of training and/or missions.

605.11 TRAINING

- (a) Authorized agency personnel assigned to operate UASs must complete an agency-approved training program and meet all conditions of the certifications as issued by the FAA. Authorized agency personnel assigned to operate UASs shall also receive additional training at regular intervals to ensure continued effective use, operation, calibration, maintenance, and performance of UASs and to incorporate changes, updates, revisions, and advances in policies, procedures, and regulations in the deployment and use of UASs.
 - 1. UAS remote pilots must have a current remote pilot certificate per 14 Code of Federal Regulations (CFR) Part 107 issued by the Federal Aviation Administration (FAA).
 - 2. All certified remote pilots must complete a required initial training as well as a minimum of eight (8) hours of annual training, which shall be documented.
 - 3. All certified remote pilots and support crew members should engage in applicable skills training no less than once a month in order to retain the knowledge and skills of UAS use.
 - 4. Failure to successfully complete any training or provide training records may be grounds for the officer to discontinue or be removed from all UAS operations.

605.12 FLIGHT AND OPERATIONS

- (a) Authorization for active incidents will not be required. Pre-planned events, such as search warrants and crowd management, will need authorization from the Program Coordinator or their designee.
- (b) No flight will commence until a minimum of one PIC and one visual observer are present. Multiple observers may be used during an operation if deemed necessary.
- (c) Pre-Flight: The Initial Check of the sUAS to ensure that it is in working condition and safe to fly.
- (d) Run-Up: The initial startup of the sUAS to ensure all components are powered and responding appropriately before take-off.
- (e) Take-off: The sUAS leaves the ground and begins the flight mission.
- (f) Emergency: Any instance where the flight has been compromised or an immediately landing is required.
- (g) Landing: The sUAS returns to the takeoff point and begins to power down.

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- (h) Post Flight: Final inspection of the sUAS to check for any damage or issues that may prevent another flight.

605.13 EMERGENCY AND ACCIDENT SITUATIONS

- (a) Any accident involving the operation of the sUAS that results in serious injury/loss of consciousness, or property damage greater than a \$500.00 loss, should be reported to the FAA within ten (10) days.
- (b) Documentation in the form of a report and photographs will be completed to document the injuries, crash incident, and any other information needed.
- (c) The supervisor will conduct a property damage investigation in accordance with SOP.
- (d) In-Flight Emergency Procedures
 - 1. In the event of a fly-away, loss of communications, loss of GPS, or other in-flight emergency, operators shall follow the procedures outlined in the manufacturer's operator's manual and applicable FAA guidance. Any such incident shall be documented and reported in accordance with department policy and FAA reporting requirements, as applicable.
 - 2. Considerations:
 - (a) Check if any other individual has a visual of the aircraft
 - (b) If possible, get others to help as a spotter
 - (c) Consider increasing altitude to clear known obstacles
 - (d) Focus on the video stream and navigate the aircraft home
 - (e) Use map/radar to manually fly the aircraft home
 - (f) Engage Home link procedure on the controller
 - (g) Try to realign antennas to regain contact
 - (h) Keep visual contact with the aircraft and fly home manually
 - (i) If the aircraft is "lost" in a known location, make sure it is safe to attempt recovery
 - (j) Consider getting assistance if the location is deemed inaccessible or unsafe
 - 3. In case of injury
 - (a) Have a medical kit available
 - (b) Request medical professionals to the scene (e.g., EMS)
 - (c) Know where the nearest medical facility is located in case transport is needed.

605.14 AUDITS

- (a) Unmanned aerial vehicle audit protocol:

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1. Supervisory personnel shall annually audit UAS flight documentation and data, authorized access records, and produce a periodic audit report detailing the results of the audit and any changes or corrections made to the flight time counter, captured data, and data access records.
2. Authorized supervisory personnel shall annually audit the policy and procedures and make recommendations for any necessary amendments.

605.15 TRANSPARENCY

The Fairfield Township Police Department is committed to transparency regarding its UAS program. The department may publish aggregate statistics regarding UAS deployments, mission categories, and program activities while protecting information exempt from disclosure under the Ohio Public Records Act and information that could compromise public safety or law enforcement operations.