



UW-Madison Police Department

Policy: 41.15

SUBJECT: UNMANNED AIRCRAFT SYSTEMS (UAS OR DRONES)

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POLICY:

The UW-Madison Police Department shall recognize an Unmanned Aircraft System (UAS), more commonly known as “Drone”, program to assist in law enforcement and emergency operations by providing increased situational awareness, enhanced safety and operational efficiency. The UAS program will operate the aircraft in coordination with patrol, investigative and special events operations as guided by the Federal Aviation Administration (FAA) Part 107 license. This policy is designed to minimize risk to people, property, and aircraft during the operation of the UAS while continuing to safeguard the right to privacy of all persons.

DEFINITIONS:

AGL: Above Ground Level

Airworthiness Certificate: An FAA document which grants authorization to operate an aircraft in flight. Airworthiness of the UAV will be certified by the Pilot.

Beyond Visual Line-of-sight: Operation of the UAV when the Visual Observer (VO) responsible for controlling the trajectory of the UAV cannot maintain direct visual contact with the UAV unaided other than by corrective lenses, sunglasses or both.

Defined Incident Perimeter: An area or location identified by the incident command. The location has a defined perimeter based upon the scope of the operation and a defined operational ceiling at or below 400 feet above ground level (AGL).

UAV Flight Log: A system or database used to log information concerning all UAV missions, including training flights.

Markings: The UAV shall be marked with the FAA Registration Number as required by federal and local law and further may, depending on the size of the UAV, be identified as belonging to the UW-Madison Police Department. The UW-Madison Police Department UAV may also be marked with red and blue LED lights to further identify the UAV as a law enforcement UAV.

National Air Space: The air space owned and regulated by the Federal Government specifically the FAA. From the ground upward (no defined height limit) is within the jurisdiction of the FAA.

Part 107: FAA regulation that allows for the commercial, non-recreational use of small unmanned aircraft systems (I-JAS) weighing less than 55 pounds. FAA Part 107 eliminates the need for a COA or 333 exemptions in most cases. A remote pilot in command certification is required.

Pilot in Command: The person in charge of all flight operations and responsible for the safe and lawful operation of the UAV.

Primary Visual Observer (PVO): means a person who is designated to “see and avoid” other air traffic or objects aloft or on the ground. The PVO will also maintain communications with all VO’s assigned to the operation. The PVO may act as a backup to the PIC or may be designated by the PIC to act as the PVO in order to complete the mission.

Registration: Is considered to be the UAV registration marking with FAA Registration Number in accordance with 14 CFR Part 45.

Remote Pilots Certificate: Certification required for all UAV operators who operate a UAV under Part 107.

Team Coordinator: A Team member designated by the Team Commander to assist with the administrative functions related to the UAV program. The Team Coordinator will maintain an inventory of the equipment which could be added to the UAV during a specific operation. The Team Coordinator is also responsible for the maintenance and operating condition of the UAV.

TFR: The FAA defines a Temporary Flight Restriction (TFR) as “a regulatory action issued via the U.S. Notice to Airmen (NOTAM) system to restrict certain aircraft from operating within a defined area, on a temporary basis, to protect persona or property in the air or on the ground.” There are different types of TFR’s, and they are listed out in the Federal Aviation Regulations (FARs).

University Lands: University lands means all real property owned by, leased by, or otherwise subject to the control of the Board of Regents.

Unmanned Aerial Systems (UAS): The entire package of components, to include the aerial vehicle, the associated support equipment, control station, data links, operating systems, telemetry, communications and navigation equipment, etc. for flight operations.

Unmanned Aircraft Vehicle (UAV): A UAV is an aircraft piloted remotely, with no human control from in or on the aircraft. A UAV may have a variety of names including drone, unmanned aircraft, quadcopter, quadrotor, etc. FAA regulation applies to UAV regardless of size or weight.

Visual Line of Sight (VLOS): The ability to see the UAV with the unenhanced eye (naked eye) of the PIC or Visual Observer.

Visual Observer: The VO is a critical component to the success of each flight event. The VO’s primary duty is to scan the airspace for airborne and ground hazards. These hazards include manned platforms (fixed-wing aircraft, rotary aircraft, balloons, etc.) and other aerial environment phenomena (birds, weather, animals, bystander, etc.). The VO immediately notifies the PIC of an airborne hazard and the PIC shall conduct the appropriate action to avoid the airborne hazard safely.

PROCEDURE:

41.15.1 ADMINISTRATION OF UAV UNIT

- A. All members of the UAV Unit shall be properly trained and pilots shall possess a valid Remote Pilot Certificate.
- B. The UAV Unit Commander shall be a Patrol Lieutenant selected by the Field Services Captain. The Commander shall be responsible for budget oversight and maintenance of the unit.
- C. The UAV Unit Coordinator shall be selected by the UAV Unit Commander. The coordinator shall be responsible for flight log oversight, annual report data, and training hours.

41.15.2 PERSONNEL SELECTION

- A. The selection process for members of the Drone Committee will be completed in accordance with 16.2.2 Specialty Officer(s) Selection Process.

- B. All selected UAV Unit candidates shall successfully acquire a Remote Pilots Certificate prior to becoming a member of the Unit.
 - 1. Each successful candidate shall acquire the license within six (6) months of being selected to the Team. The candidate will locate an FAA testing facility to schedule a written examination demonstrating the understanding of regulations, operating requirements and procedures for safely flying drones.
 - a. The Department shall pay for the candidate to initially take the examination. Should the candidate fail to successfully acquire their license, the candidate shall pay for any subsequent examinations. There is a 14-day wait period before attempting to re-test for a license.
 - 2. Each candidate after successful completion of a Remote Pilots License, shall complete a skills test.
- C. UAV Unit members shall successfully complete all required trainings and in-services in order to remain on the Unit.
- D. Personnel assigned to the UAV Unit are required to commit to the unit for a minimum of four years. Personnel will have the option to extend their rotation on the team for up to two years. The Department shall not differentiate unit members when considering shift changes, special assignments and/or promotional opportunities.

41.15.3 UAS MISSION – OPERATIONAL PLANNING

- A. The UW-Madison Police Department’s Unmanned Aircraft Vehicle Team shall support department operations by providing aerial observation of law enforcement and other public safety incidents. Missions will be accomplished efficiently and safely while respecting the law and the privacy of the citizens we serve.
- B. The UAV may be used to assist in the development and planning of an investigative and/or enforcement operation, to include the use of 360-degree panoramic images.
- C. The UAV may be used to assist in pre-planning a large event where public safety and officer safety may be a concern.
- D. The UAV may be requested by Command Staff or their designee to prepare for an event or operation not listed above.

41.15.4 UAS OPERATIONS

- A. UW-Madison Police Department UAV devices may only be utilized under the following circumstances:
 - 1. To assist in search and rescue operations
 - 2. To provide aerial documentation of crime scenes
 - 3. To provide aerial surveillance of damage caused by natural or manmade events
 - 4. To provide visual perspective to UWPD personnel to aid in managing public safety operations.
 - 5. To provide aerial, visual support – including images – of public safety operations.
 - 6. To provide aerial images in areas considered hazardous for human life (HAZMAT situations).
 - 7. To assist with Special Events or other UWPD personnel with aerial assessment of crowd control situations (to aid in identifying safety issues).
 - 8. To provide support for tactical operations.
 - 9. For training, testing, evaluation, demonstration or maintenance purposes.
 - 10. Other circumstances as approved by the Chief of Police or his/her designee.

- B. Absent a valid search warrant, per WI State Statute 175.55, no UAV will be used to gather evidence or other information from or at a place where an individual has a reasonable expectation of privacy. This restriction does not apply to the following circumstances:
1. UAV deployment in a public place.
 2. During an active search and rescue operation.
 3. To locate an escaped prisoner.
 4. To surveil a place or location for the purpose of executing an arrest warrant.
 5. If reasonable suspicion exists that UAV use is necessary to prevent imminent danger to an individual or to prevent the imminent destruction of evidence.
- C. UW-Madison Police Department UAV systems shall not be used:
1. To conduct random surveillance activities.
 2. To target any person based solely on individual characteristics, such as, but not limited to race, ethnicity, national origin, religion, disability, gender, or sexual orientation.
 3. To harass, intimidate, or discriminate against any individual or group.
 4. Over any correctional institution unless requested by Department of Corrections pursuant to State Statute 114.045(1).
 5. With any type of weapon attached or affixed.
- D. UAV Use (Deployment)
1. The deployment of a UAV shall be determined by meeting criteria of sections A or B above and pursuant to 41.1.3 Special Purpose Vehicles.
 2. If adequate staffing resources exist, two members of the UAV Team shall be deployed to assist. Should a second member of the Team not be available, another department member can be utilized as a VO.
 - i. If only a civilian Pilot is available to assist with a deployment, a sworn department member will be paired with the Pilot to assist with any evidence related items.
 3. Prior to and immediately following a UAV deployment, the pilot shall conduct and document a pre-flight and post-flight inspection in accordance with the pilot checklist.
 4. Should UAV Team members not be available, Mutual Aid shall be requested from neighboring agencies.
- E. Police Dispatcher Responsibilities
1. When a UAV deployment is authorized, the Police Dispatcher shall contact MedFlight Medical Communications prior to a UAV launch.
 2. The Police Dispatcher shall provide the location for launch and the area where the UAV will be utilized.
 3. The Police Dispatcher shall provide a phone number for the MedFlight Medical Communications staff to contact for any incoming or outgoing aircraft near UW or the other downtown Madison area hospitals.

4. At the completion of the UAV deployment, the Police Dispatcher shall contact the MedFlight Medical Communications Unit informing we have finished our operations.

41.15.5 PILOT REQUIREMENTS AND QUALIFICATIONS

- A. The Pilots shall hold a FAA part 107 UAS license. The Pilots will have a current working knowledge of the air space intended for operations, communications requirements, specific UAV aerodynamic factors, and the ability to obtain and interpret weather. All pilots must meet the following flight requirements and be current with their UAV flight log entries.
 1. Basic Flight Operations Training: All pilots must successfully complete and pass the basic flight operations training / curriculum for UAVs as approved by the department or the manufacturer.
 2. Biannual currency training: Pilots shall participate in one-hour flight time training quarterly, at a minimum. Pilots, who will be flying personally owned drones to meet quarterly flight time requirements, shall maintain a log of the flight time training completed to be submitted to the UAV Unit Coordinator on a quarterly basis.
 3. Recurrent training is not limited to actual pilot / observer skills, but includes knowledge of all pertinent UAV and aviation matters. To maintain the FAA license, all UW-Madison Police Department UAV Pilots shall take the required FAA knowledge test every two-years.
 4. All UWPD personnel authorized as UAV Pilots shall maintain proficiency in their operator / observer abilities. Members who do not have documented training or flight time for the proceeding 90-days shall demonstrate proficiency prior to performing pilot / observer duties during a mission.
 5. Failure to maintain / prove proficiency can result in removal from UAV operations and the Team.

41.15.6 UAS MEDIA

- A. Data collected through UAV deployment, including still and/or motion images, shall be stored and retained in accordance with Chapter 82.4 Records Retention Schedule. Copies of files may also be saved for training purposes.
- B. Protection of Privacy
 1. UW-Madison Police Department operates under a set of rules, policies and laws controlling the collection, retention, dissemination and disposition of records that contain personally identifiable information. As with personally identifiable information collected in the course of any investigation, these authorities apply to information collected via UAV. Consistent with applicable existing laws and requirements, UWPD shall adhere to best practices and agency protocols.
 2. Data / imagery collected by UAV operations that is retained will be safeguarded in accordance with agency policy. Use of all agency information systems may be monitored, recorded and subject to audit, and any unauthorized collection, retention or dissemination of data is strictly prohibited. All data / imagery collected during the course of a deployment shall be maintained in accordance with 84.1 Property and Evidence Control and Appendix N UWPD Digital Media Preservation or Processing.
 3. UWPD deployment of UAV shall continue to be used in a manner consistent with the U.S. Constitution and all applicable laws, regulations and policies, including those protecting privacy and Civil Liberties.

41.15.7 REPORTING

- A. A flight log shall be completed following every UAV flight including maintenance checks and training flights. If the situation of the mission does not allow for immediate entry of the flight data, the information can be recorded the following work day.
- B. The UAV Team Coordinator shall maintain an annual report of the UAV data to include:

1. The number of times an UAV was used, organized by date, time, location and types of incidents and types of justification for use.
2. The number of criminal investigations aided by the use of an UAV and a description of how the UAV aided each investigation.
3. The number of times an UAV was used for law enforcement operations other than a criminal investigation, the dates and locations of those operations, and a description of how the UAV aided each operation.
4. The total cost of acquiring, maintaining, repairing and operating or otherwise using each UAV.

C. Accident Notification and Investigation

1. The Pilot must report to University Risk Management and the FAA within 10 days of any operation or airborne mishap resulting in serious injury, loss of consciousness, property damage of at least \$500 (not including damage to UAV).

41.15.8 EQUIPMENT INSPECTION AND MAINTENANCE

A. UAV Commander Responsibilities:

1. Shall maintain an inventory control log of all equipment assigned to the Team.
 - a. All Equipment shall be registered and insured with University Risk Management.
2. Shall ensure all equipment is maintained based on the manufacturer specifications.
3. Equipment maintenance shall be performed by manufacturer personnel or trained unit members at the discretion of the Unit Coordinator.
4. Heat and cold sensitive equipment shall not be stored in vehicles that will be left unattended.
5. Heat and cold sensitive equipment must be stored in climate-controlled storage facilities.
6. At least once per quarter, each UAV will be inspected to ensure it is safe for deployment. The Commander or designee shall also conduct periodic reviews of each pilot, assessing the pilot's flying capabilities and ensuring all mandated training is met.

