

Calumet City Fire Department Standard Operating Guidelines	
Section 10: Responses 10.16 UA Response	EFFECTIVE DATE: Click here to enter text.
APPROVED BY: Chief Glenn Bachert	Last Evaluation Date: May 1, 2024

I. PURPOSE:

This guideline shall provide the personnel of the Calumet City Fire Department (CCFD) with policies to follow when operating the department’s unmanned aircraft (UA) or “drone.”

II. DEFINITION

A UA is defined as a system utilizing a small unmanned aircraft (UA) and a control station (CS) by a remote pilot. Sensors capable of transmitting video feedback to the CS will be utilized as payloads attached to the UA. This system can be requested when the Incident Command (IC) determines its use will assist in completing the strategic goals of the incident. The CCFD has one unmanned aircraft for various emergencies where the IC deems it necessary. Capabilities include:

- Live video feed to the controller on the ground
- High-resolution video and infrared cameras
- Fly 200’ above ground
- Spotlight and Speaker (weather permitting)
- Flight time 40 minutes

III. REQUESTS

Requests for the UA will be made by the IC through Dispatch.

Considerations for a UA request:

- May not operate UA over unprotected persons
- May not operate in restricted airspace
- May no conduct surveillance or photograph areas where there is an expectation of privacy.
- May only be operated by trained personnel who have be cleared by fire department administration.

IV. ON SCENE PROCEDURE

Upon arriving at the requested location, the UA operator shall report to the Incident Command and receive a briefing on the mission requested. The UA operator shall will make an on-scene determination of the ability of the UA to perform the requested mission safely and within department and FAA policies and procedures. If the RPIC determines that the use of the UA would violate department or FAA policy, then the UA operator will inform the IC of the potential conflict along with recommendations for modifying the requested mission to conform to the department or FAA policies. The UA operator responsibility and discretion for declaring safety or FAA rule violations.

If the UA operator determines that the requested mission will potentially damage the UA or its associated equipment, the UA operator shall inform the IC of their concerns. If the IC orders

the mission, the UA operator shall document to the deviation to the Fire Chief Office.

V. TRAINING

All UA operators shall complete the necessary training set forth by the Calumet City Fire Department. Training shall include but not limited to:

- UA operations, abilities, and limitation
- FAA regulations regarding Calumet City's Certification of Authority (COA)
- Completion of flight log

VI. FLIGHT LOG

Any time that a UA is put into flight, a flight log shall be completed. Flight logs are completed to ensure that:

- Mission and weather are noted
- Any FAA restrictions to noted
- The UA is determined to be airworthy (pre-flight checks)
- A flight check is performed

If conditions that are marked NO during pre-flight check, the flight mission shall cancel be aborted.

VII. EMERGENCY PROCEDURES

Personnel flying the UA will be first and foremost trained to understand that in any emergency situation, the safety of persons on the ground and in the air is our number one priority. The following are emergency procedures, and each will be documented with an incident report submitted to the Deputy Fire Chief.

- **FIRE:** UA will be flown away from people and property until a safe landing location can be established. A fire extinguisher and first aid kit will be located at the mission site.
- **MALFUNCTIONING/LOSS OF COMMUNICATION WITH RC:**
Communications with the UA will be attempted. If the Personnel flying the UA is unable to re-establish connection, announcement will be made to anyone in the area to prevent harm, etc. Personnel will maintain visual line of sight and will record the events (incident report) and will remove UA from operations until repairs can be made.

VIII. LOST LINK / LOST COMMUNICATIONS

If the Home Point was successfully recorded and the compass is functioning normal, the Failsafe Return to Home (RTH) will be automatically activated if the remote controller signal is lost for more than 3 seconds. The RTH process may be interrupted and the operator may regain control of the aircraft if the remote controller signal connection is re-established.

The UA cannot avoid obstructions during RTH when the Obstacle Sensing System is disabled. Therefore, it is important to set a suitable failsafe altitude before each flight.

If the UA is flying under 65 feet and failsafe RTH is triggered, the UA will first automatically ascend to 65 feet from the current altitude. You can only cancel the ascending by existing the failsafe, refer to RTH button for more information on how to exit the failsafe and regain the control of the remote controller.

The UA automatically descends and lands if the RTH is triggered when the UA flies with 65-foot radius of the Home Point. The UA will stop ascending and immediately return to Home Point if you move the throttle stick if the UA reaches a 65 feet altitude or beyond during a failsafe.

The UA cannot return to the Home Point when GPS Signal is weak, displays grey, or is unavailable.

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If you move the throttle stick after the UA rises about 65 feet but below the pre-set failsafe RTH altitude, the UA will stop ascending and immediately return to the Home Point.

