	Tonto Rim Search and Rescue (TRSAR) **Unmanned Aerial Systems (Drones)** **Standard Operating Procedures** **P.O. Box 357, Pine, AZ 85544**
Approved Date: 04/27/2026	**Pages:** 4
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SECTION I. MISSION

Our mission is to integrate Small Unmanned Aircraft (UAS) into search and rescue operations to enhance situational awareness through thermal imaging, photography and real-time data, ensuring the highest probability of detection while prioritizing the safety of our personnel and the community.

SECTION II. PURPOSE

This standard operating procedure (SOP) is for the use of UAS to enhance the safety and efficiency of search and rescue operations. It applies to all team members, including Remote Pilots in Command (RPICs), Visual Observers (VOs), and support staff.

SECTION III. JOINING THE TEAM AND AUTHORIZATION TO FLY

Search and rescue activities, including training missions, are not recreational. Therefore, anyone who wants to pilot a drone during training or real-world operations must be authorized in accordance with this SOP.

Joining the Team

1. Only persons who are official members of TRSAR may join the Drone Team.
2. All team members who desire to fly drones for TRSAR are encouraged to participate in team training. Team trainings will be held periodically to gain experience and enrich pilot skills.

Authorization To Fly

1. *Training* – any team member may fly drones during training missions under the direct supervision of any drone team lead or team authorized Remote Pilot in Command.
2. *Missions* – only those members who are authorized to fly by the drone team leads and have the FAA Part 107 license may fly during real world missions.

Remote Pilots in Command

1. Be designated by the team leads as an official Remote Pilot in Command.
2. To become a designated Remote Pilot in Command, the operator must:
    a. Pass the FAA Part 107 knowledge exam. Keep current on their FAA Part 107 license by passing the Recurrent Exam every 24 months.
    b. Demonstrate to the team leads that you can update the software (if available) on the battery charging cases (if any), the remote controller, and the drone.
    c. Demonstrate you can charge the batteries and controllers.
    d. Demonstrate you can perform a pre-flight inspection and determine the drone's readiness to fly.
    e. Demonstrate you can determine if there are any Temporary Flight Restrictions or prohibited flying zones in the area you plan to fly and checking if weather

conditions are safe to fly (wind, temperature, visibility, precipitation).

f. Demonstrate you can use the onboard cameras properly and the installed infrared (thermal) imaging system.

SECTION IV. REGULATORY COMPLIANCE (FAA & NDAA)

All operations shall be conducted in accordance with 14 CFR Part 107.

1. Pilot Certification: All pilots must pass the FAA Part 107 knowledge exam to legally fly for search and rescue.
2. Registration & Licensing: Every aircraft must be registered with the FAA via the FAA DroneZone (https://faadronezone-access.faa.gov/#/) and display the registration number externally.
3. Remote ID: All aircraft must broadcast Remote ID information unless operating in a designated FAA-Recognized Identification Area (FRIA).
4. Small UAS operators must have their remote pilot certificate and identification in their physical possession when operating, ready to present to authorized individuals upon request. Pilots must keep their certification current by completing recurrent online training every 24 months.
5. Specific Requirements for Training and Missions:
    a. *Training Missions*: non-licensed pilots operating a drone during a training mission must be performed under the direct supervision of a FAA Part 107 licensed pilot.
    b. *Search, Rescue & Recovery Missions*: All pilots flying during any official Gila County Sheriff's Office search, rescue or recovery missions must be FAA Part 107 licensed pilots.
    c. *Law Enforcement Support*: to support any law enforcement activity, the drone and all its associated components and peripheral equipment must meet the standards set forth in the National Defense Authorization Act (NDAA), Blue List. The pilot must be a FAA Part 107 licensed pilot.

SECTION V. OPERATIONAL LIMITS & REQUIREMENTS

Standard operations will adhere to the following Part 107 limits unless a specific waiver is held:

1. *Altitude*: Maximum 400 feet AGL (Above Ground Level).
2. *Visual Line of Sight (VLOS)*: The RPIC or a VO must maintain constant, unaided visual contact with the aircraft.
3. *Night Operations*: Allowed if the drone is equipped with anti-collision lighting visible for at least 3 statute miles.
4. *Right of Way*: UAS must yield to all manned aircraft immediately.
5. *Weather*: Minimum of 3 statute miles of visibility and 500 feet below/2,000 feet horizontally from clouds

SECTION VI. PRE-FLIGHT SAFETY CHECKLIST

No aircraft shall launch without completing the following:

1. *Airspace Check*: Verify restrictions via LAANC.
2. *Hardware Inspection*: Check props, battery levels, and motor integrity.
3. *Communication*: Establish clear radio protocols between RPIC and VO.
4. *Environmental Scan*: Identify obstacles, power lines, and non-participating people.

SECTION VII. INSURANCE REQUIREMENT FOR AUTHORIZED PILOTS

1. *Training*: Any person in the squad may fly a drone under the direct supervision of a FAA, Part 107, licensed drone pilot. The squad's insurance policy requires Tonto Rim Search & Rescue to follow all FAA rules.
2. *Sheriff's Office Missions*: Only FAA, Part 107 licensed pilots may fly drones during official Sheriff's Office missions. Gila County's insurance policy requires all drone pilots to be licensed under FAA, Part 107.

SECTION VIII. CONTINUING EDUCATION AND LICENSE RENEWAL

Remote pilots must complete the online FAA recurrent training every 24 calendar months. This recurrent training course may be found at https://www.faasafety.gov/gslac/ALC/CourseLanding.aspx?cID=677. The recurrent training is immediately followed by a recurrent test. You must pass the recurrent test every 24 months to keep your remote pilot license current.

SECTION IX. KEY TERMS

Above Ground Level (AGL): representing an aircraft's or drone's precise altitude relative to the terrain directly beneath it.

Federal Aviation Administration, Part 107 (FAA, Part 107): the Federal Aviation Administration's regulation for commercial drone operations.

Low Altitude Authorization and Notification Capability (LAANC): is an FAA system providing near-real-time, automated airspace authorization for drone pilots (Part 107 and recreational) to fly in controlled airspace (Classes B, C, D, and E) below 400 feet.

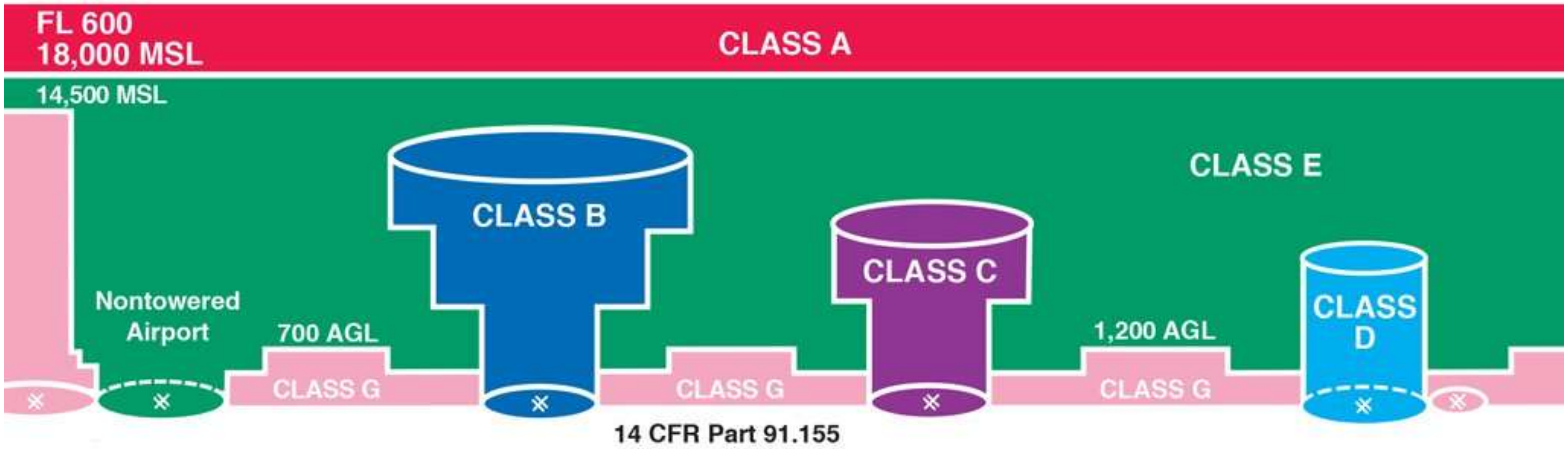
Remote Pilot in Command (RPIC): the FAA-certified individual holding ultimate legal responsibility for the safety, operation, and compliance of a drone flight.

Unmanned Aircraft System (UAS): or drones weighing less than 55 pounds, include the aircraft, communication links, and control stations used for commercial, recreational, and defense applications. Regulated primarily under FAA Part 107, these systems require pilot certification and registration.

Visual Line of Sight (VLOS): operating a drone within the direct, unaided sight of the pilot to ensure safe, legal operation, allowing for collision avoidance.

Visual Observer (VO): is a designated crew member in drone operations who assists the Remote Pilot in Command (RPIC) by maintaining a visual line of sight on the drone. VO is only required if the RPIC is using FPV goggles. FPV's are First Person View goggles that a RPIC may wear to view a live, immersive video feed from a camera mounted on a radio-controlled aircraft.

U.S. Airspace Classes at a Glance



14 CFR Part 91.155

Airspace Class	Entry Requirement	Pilot Certificate or Rating	Two-Way Communication	Altitude Decoding Transponder	VFR Min. Visibility Below 10,000 MSL	VFR Min. Visibility 10,000 MSL and Above	VFR Cloud Clearance Below 10,000 MSL	VFR Cloud Clearance 10,000 MSL and Above
A	ATC Clearance	Instrument	Yes	Yes	N/A	N/A	N/A	N/A
B	ATC Clearance	Private Certificate or student with endorsement	Yes	Yes within 30 nm of the class B primary airport[1]	3 miles	3 miles	Clear of Clouds	Clear of Clouds
C	VFR: Radio Contact IFR: Clearance	Student Certificate	Yes	Yes within C space and above lateral limits of C space[1]	3 miles	3 miles	500 below 1,000 above 2,000 horizontal	500 below 1,000 above 2,000 horizontal
D	VFR: Radio Contact IFR: Clearance	Student Certificate	Yes	No unless required by other airspace	3 miles	3 miles	500 below 1,000 above 2,000 horizontal	500 below 1,000 above 2,000 horizontal
E	VFR: None IFR: Clearance	Student Certificate	IFR only	No unless required by other airspace	3 miles	5 miles	500 below 1,000 above 2,000 horizontal	1,000 below 1,000 above 1 mile horizontal
G	None	Student Certificate	No	No unless required by other airspace	Day: 1 mile Night: 3 miles	5 miles[2]	500 below 1,000 above 2,000 horizontal [2]	1,000 below 1,000 above 1 mile horizontal [2]

[1] An altitude decoding transponder is required above 10,000 MSL.
[2] When flying 1,200 AGL or below: DAY: 1 mile visibility clear of clouds; NIGHT: 3 miles visibility, 500 below, 1,000 above, 2,000 horizontal.

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*** AGL = above ground level | FL = flight level | MSL = mean sea level ***

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