

Drone Safety Protocol: Great Balloon Race 2024

Date/s: September 6th - 8th, 2024 Location: Rancho San Rafael Regional Park Company: LoadedTV Pilot In Command: Matthew Andrew

Flight Operations Checklist

- Depending on what is agreed upon with local authorities, a Notice to Airmen (NOTAM) and coordination will be required a predetermined number of hours prior to operations (check with local authorities to confirm requirements).
- Email internal team members with details 24 hours prior to operations
- Ensure aircraft is labeled with valid unmanned aerial system (UAS) registration and serial numbers

Pre-Flight Preparation

- UAS should be visually inspected for damage.
- Visually check flight controls for damage.
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- Safety switch or battery disconnect prevents aircraft propellers from rotating.
- Aircraft and remote control batteries must be sufficiently charged for planned operation.
- Protective gear for personnel involved in testing include hard hats, gloves and safety glasses.

Flight Phase

- Pilot in Command (PIC) must gain clearance from local Air Traffic Control (ATC) authorities through assigned frequency, if available, and positioned next to active ATC radio during the entire flight operation.
- Visual Observers (VO) connected via two-way radio and positioned at various transition points where there is high pedestrian traffic while keeping an eye on airspace.
- A UAS Safety Officer is assigned to monitor the aircraft logs (e.g. battery, height, exact location) and can serve as an additional visual observer in communication with the team.

Post Flight

- Notify that operations have ended and cancel NOTAM.
- Only personnel wearing protective equipment should retrieve the UAS inside a controlled zone.
- Aircraft must be turned off and batteries disconnected.
- Turn off controller/transmission.
- Visually check aircraft for signs of damage and/or excessive wear.
- Update UAS pilot log book, if available, and log flight information such as deviations from the original plan, mistakes, and test results.
- Keep record of UAS monthly reports, including UAS type and model, number of flights, total aircraft operational hours and equipment malfunction for future performance monitoring.

Lost Communication and Lost Link Emergency Procedures

- ATC must be immediately notified in the event of any emergency, loss and subsequent restoration of command link, loss of PIC or observer visual contact, or any other malfunction or occurrence that would impact safety or operations or as agreed upon with local authorities.
- In the event of a lost link, the UAS pilot should immediately notify assigned frequency, state pilot intentions, and comply with the following or as agreed upon with local authorities.`
- Lost Link between UAS and GPS If the UAS reports lost at GPS, the aircraft should be programmed to be flown back to the home point and landed by the PIC
- Observer loses sight of the UAS If the observer loses sight of the UAS it should be navigated back to the pilot/observer location until site is regained or pilot selects "return to home" function and the UAS will perform a flight to home point and land vertically
- In the event of loss of communications, the UAS should be piloted to the home point and land vertically. The UAS should remain on the ground until the pilot and observer communications are restored.

Operational Safety Procedures

- UAS related injury to personnel Assess injury and for serious injuries, call 911 immediately.
- For superficial injuries (i.e. scratches, cuts, etc.) use onsite first aid kit.
- Present the injured party with insurance details as required.
- UAS operations team to document the event and contact the insurance company.

UAS related damage to property

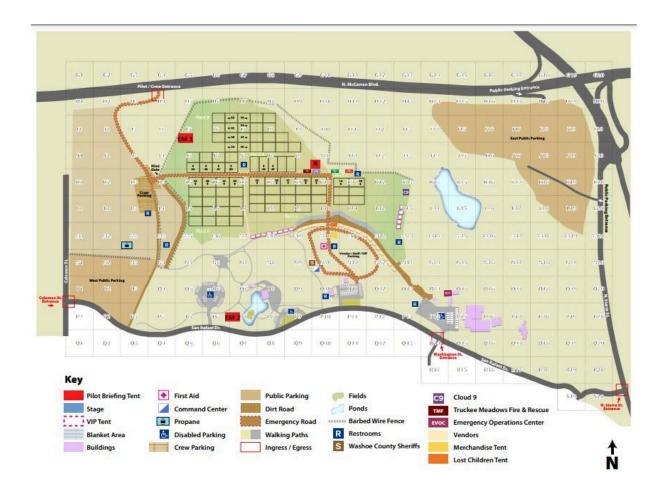
- Photograph and document the event and damage to the area.
- Obtain the contact information of the property owner.
- Present the property owner with insurance details as required.
- UAS operations to document the event and contact insurance as soon as possible.

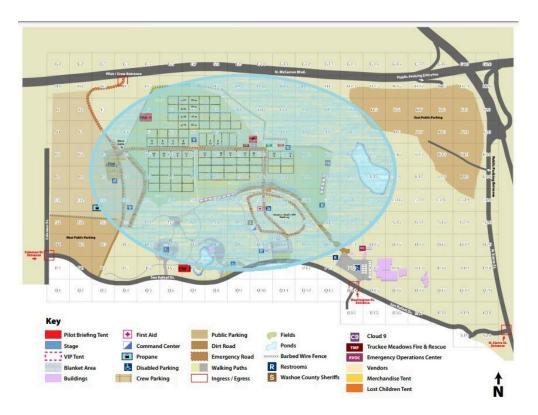
Location Grid Map: Landing Zones

Each LZ will measure 6x6 feet, clearly marked, lit, cordoned off and manned by one spotter.

- Primary Launch and Landing Zone: Lower left corner of J10
- Emergency Landing Zone #1: Lower right corner of J4.
- Emergency Landing Zone #2: Lower left corner of P7.

Please refer to map below:





2024 GRBR General Geo Fencing Drone Map

Geo Fencing will be limited to the following area at Rancho San Rafael.

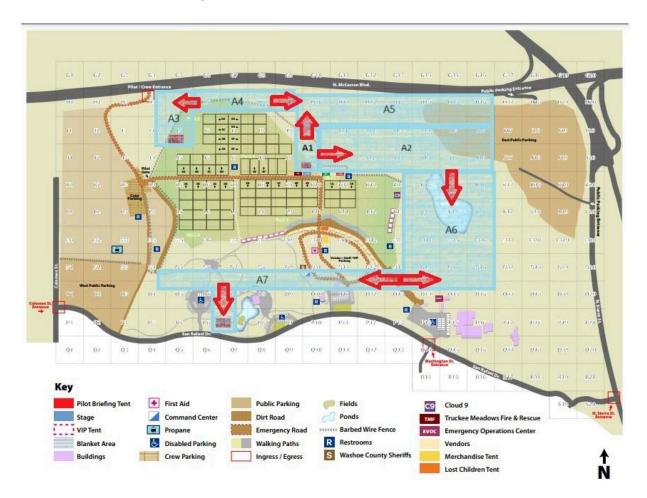
North as far as H11

East as far as L16

South as far as P11

West as far as L2

2024 GRBR UAS Operating Areas:



Areas boxed in blue listed <u>A1 through A7</u> are the UAS areas of operations for the 2024 GRBR.

Each box allows for corridors of access to the next area of operation (indicated by the red arrows).

Each area of operation allows for access to the main LZ (located behind the stage) and the two emergency LZ's (located at J4 & P7)

Contact Details:

Pilot In Command: Matthew Andrew - (775)-391-5616

LoadedTV & Lead Spotter: Stewart Campbell - (530)-448-3297