U.S. Department
of Transportation
**Federal Aviation
Administration**

Office of Airport Safety and Standards

800 Independence Avenue, SW,
Washington, DC 20591

October 26, 2022

Dear Airport Sponsor,

One of the key missions for the Office of Airports Safety and Standards is to ensure that the airport environment operates in a safe manner. Given the increased level of small, unmanned aircraft system (sUAS)[1] activities over the past few years, greater information, and awareness about these types of aircraft and safely conducting operations on airports is warranted.

Operating sUAS i.e., launch and recovery of the aircraft, from on airport property[2] is complex and requires planning and coordination. This letter, and subsequent attachments, provides federally obligated airport sponsors with information about types of sUAS activities, considerations for proposed on airport sUAS operations, and resources to enhance operational safety and situational awareness for the related activities.

FAA organizes small, unmanned aircraft operators into three general categories:

1. *Government, Public Safety, and Law Enforcement*
   Government functions for authorized public aircraft operations[3] often occur with a certificate of authorization (COA).
2. *Certificated Remote Pilots (Business, Commercial Enterprise, Non-profit Operators)*
   Most operations comply with Part 107 rules while operations for package delivery are regulated by Part 135 and operations for dispensing of chemicals or agricultural products are regulated by Part 137.
3. *Recreational/Model Aircraft or for Higher Education Research*
   Operations strictly for enjoyment, fun, or education and research are permissible under USC 44809 - Exception for Limited Operation of Unmanned Aircraft. Recreational sUAS operations[4] are considered a non-aeronautical activity for the purposes of airport access under the Airport Improvement Program (AIP) Grant Assurances.

Operators flying sUAS in categories #1 and #3 above that do not meet the defined requirements for these types of operations will likely be conducted under Part 107 rules. The FAA UAS Help Desk is available to answer general questions and address comments via email at UAShelp@faa.gov or phone at 844-FLY-MY-UA for flight requirements and airspace authorizations.

Additionally, airspace access should not be construed as access to the airport. Physical access to the airport is an approval granted by the airport sponsor and governing authority. For example, considerations in terms of security and badging to access secure areas on an airfield may be applicable if the proposed activity is intended to originate or terminate within the airport's property line, as depicted on a current Exhibit A or Property Map, represented as part of the approved Airport Layout Plan (ALP).

[1] sUAS is an unmanned aircraft weighing less than 55 pounds on takeoff, including everything that is on board or otherwise attached to the aircraft.
[2] The FAA considers on airport operations as UAS operations occurring within the airport's property line.
[3] Public Operations-Manned and Unmanned defined under Title 49 USC (49 U.S.C.) §§ 40102(a)(41) and 40125
[4] See 49 USC 44089, Exception for limited recreational operations of unmanned aircraft.

As the owner/operator of the airport property, airport sponsors have the authority to approve or disapprove a sUAS operation requesting access to operate on an airport. In September 2021 the FAA's Air Traffic Organization (ATO) updated JO 7200.23, Processing of Unmanned Aircraft Systems Requests, which now requires verification that the airport sponsor approves of a request for on airport sUAS operation(s) under USC 44809, Part 107, and Part 91 COAs. Proposed denials of access to an airport should be discussed with a Regional Office of Airports UAS Point of Contact (POC) to ascertain compliance with a sponsor's federal obligations.

Any sUAS operator, including the airport authority or a contractor working on their behalf, proposing to fly on an airport must submit the authorization request through the DroneZone website at https://faadronezone-access.faa.gov/#/; LAANC cannot be used to request authorization for on airport operations.

Furthermore, it is the responsibility of sUAS operators to be aware of systems on the airport that may produce high intensity radiated fields (HIRF), and other impacts to unmanned aircraft, which may require mitigation prior to unmanned aircraft operations occurring. Examples include, but are not limited to, control link degradation or radio frequency interference.

Although current policy does not require prior communication for sUAS operations in Class G airspace, airport sponsors and operators are encouraged to begin planning and coordination well in advance of a proposed activity. The airport may elect to issue a temporary Notice to Airmen (NOTAM)[5] during a sUAS operation as a means of increasing situational awareness and enhancing safety for flights at their facility.

The Office of Airports (ARP), Airport Technology Research and Development Branch (ATR) is researching applications for UAS in airport environments (e.g., Obstruction Surveys, Pavement Inspection, Perimeter Surveillance, Wildlife Hazard Management, Aircraft Rescue and Firefighting (ARFF) Situational Awareness, Foreign Object Debris (FOD) Detection). Findings of the research are expected to be shared in 2022 and early 2023. Until research is complete, and guidance and standards for use of sUAS in these applications are formalized, sUAS cannot be used as a sole means of compliance with federal regulations and requirements and must be supplemented by traditional methods.

Subsequent attachments expand on the preceding information with tools and resources available regarding the safe operation of sUAS on airports.

The FAA encourages airport sponsors to work with their ARP Regional UAS POC if there are any questions regarding sUAS operations on airports. Contact information for the Regional UAS POCs can be found at the following website https://www.faa.gov/airports/new_entrants/on_or_near/.

If you have any questions, please feel free to contact Mike Branum at 817-222-5669 or michael.branum@faa.gov.

Sincerely,

JOHN DERMODY

Digitally signed by JOHN DERMODY
Date: 2022.10.26 15:49:13 -04'00'

John R. Dermody, P.E.
Director
Office of Airport Safety and Standards

[5] The FAA NOTAM website includes a primer for airports with associated best practices.

ATTACHMENT 1: INFORMATION FOR ON AIRPORT SMALL-UNMANNED AIRCRAFT SYSTEMS OPERATIONS

1. Related Publications

- *Title 14 Code of Federal Regulations (CFR) Part 77, Objects Affecting Navigable Airspace.*
- *Title 14 CFR Part 91, General Operating and Flight Rules.*
- *Title 14 CFR Part 107, Small Unmanned Aircraft Systems.*
- *Title 14 CFR Part 139, Certification of Airports.*
- *Title 49 United States Code Section 44809, Exemption for Limited Recreational Operations of Unmanned Aircraft.*
- *FAA Order 5190.6, FAA Airport Compliance Manual.*
- *FAA Order 7930.2, Notices to Airmen (NOTAM).*
- *FAA Job Order 7200.23, Processing of Unmanned Aircraft Systems (UAS) Requests.*
- *FAA Advisory Circular (AC) 91-57, Exception for Limited Recreational Operations of Unmanned Aircraft.*
- *FAA AC 107-2, Small Unmanned Aircraft Systems.*
- *FAA AC 150/5200-28, Notices to Airmen (NOTAMs) for Airport Operators.*
- *FAA AC 150/5210-5, Painting, Marking, and Lighting of Vehicles on an Airport.*
- *Series 150 (Airport) Advisory Circulars for Airport Projects.*
- *Airport Improvement Program Grant Assurances.*
- *FAA-H-8083-25, Pilot's Handbook of Aeronautical Knowledge.*
- *FAA Aeronautical Information Manual.*
- *Policy Guidance on Approach and Departure Surface Protection:* https://www.faa.gov/airports/engineering/pg_apch_dep_surface_protection
- FAA National Part 139 CertAlert No. 21-04, *Updated Guidance for Airport Emergency Plans*

2. General FAA UAS Resources

- FAA UAS Website: https://www.faa.gov/uas
- DroneZone and UAS Registration: https://faadronezone-access.faa.gov/#/
- B4UFLY App: Recreational users who only fly their drone for fun, can utilize the app to better understand where they can and cannot fly with interactive maps. https://www.faa.gov/uas/getting_started/b4ufly
- Low Altitude Authorization and Notification Capability (LAANC): LAANC is a result of a collaboration between FAA and Industry to supports UAS integration. https://www.faa.gov/uas/programs_partnerships/data_exchange
- UAS Facility Maps: UAS Facility Maps show the maximum altitudes around airports where the FAA may authorize part 107 UAS operations without additional safety analysis. https://www.faa.gov/uas/commercial_operators/uas_facility_maps
- Recreational UAS Safety Test (TRUST): TRUST is The Recreational UAS Safety Test. It provides education and testing for recreational flyers on important safety and regulatory information. If an operator flies recreationally under the Exception for Recreational Flyers they must pass the test before flying.

3. Other Considerations

Communication

- The airport sponsor is encouraged to engage other airport stakeholders (e.g. local air traffic control (ATC) facility, the Transportation Security Administration Federal Security Director, tenants, law enforcement, military, UAS detection equipment operators, etc.) during the pre-planning and coordination of the proposed operation, as necessary. Awareness of the proposed operation will afford affected stakeholders an opportunity to communicate critical or sensitive areas of the airport.
- Airport sponsors should work with the FAA (ARP Regional UAS POC) for any unique operating requirements or infrastructure needs.
- The airport sponsor and sUAS operator are encouraged to establish a procedure to ensure timely notification to the airport sponsor of any airport incident, risk of foreign object debris on the airport, or other safety issue related to the sUAS operation.
- The airport sponsor should cancel the NOTAM(s) associated with sUAS operations if the sUAS operation concludes earlier than anticipated.

Airport Access

- Careful consideration should be given prior to closing any portion of the airport solely to accommodate sUAS operation(s). Coordination with the regional ARP UAS POC or ADO is recommended prior to closing an area e.g. movement area(s), of the airport for any extended periods to permit sUAS operations to ensure there will not be a violation of federal grant assurances.
- The sUAS operator(s) and support personnel (e.g. visual observer(s)) must meet the security/driving/access requirements of the airport, or, be escorted by the airport sponsor or their designee.
- The sUAS operator must be familiar with the local airport/air traffic operating environments (e.g. traffic pattern, traffic flows, procedures, etc.), prior to conducting the sUAS mission.
- The FAA suggests that the airport sponsor and/or sUAS operator conduct an inspection of the sUAS operations area(s) upon completion of the mission to minimize the possibility of any FOD.
- When reviewing on airport requests, airport sponsors are reminded of their obligations under the FAA Airport Improvement Program (AIP) Grant Assurances[6] including ; Grant Assurance 19, Operation and Maintenance; Grant Assurance 20, Hazard Removal and Mitigation and Grant Assurance 22, Economic Nondiscrimination.

Items to Review for Proposed On Airport sUAS Activity

- Type of sUAS Activity: Determine if the proposed operation is categorized under recreational sUAS per USC 44809, Part 107, or a Public COA.
- Location: Determine if the sUAS operation will be located within the airport property lines as depicted by the most current, approved Airport Layout Plan's (ALP) Exhibit A or Property Map.
- Common Flight Information: The following flight related details may be useful to airport sponsors when evaluating a proposed request to access the airport for on airport sUAS operations.
    - Responsible Party
    - Details of Operation
        - Start date and end date;
        - Timeframe (sunrise to noon; noon to 4pm; 4pm to sunset; night);
        - Frequency (daily, weekly, bi-weekly, or monthly);
        - Local time zone;
        - Proposed location(s) of operation;
        - Proposed maximum altitude above ground level (AGL);
        - Latitude (degrees, minutes, seconds, direction);
        - Longitude (degrees, minutes, seconds, direction);
        - Radius of operational area (1/10 nautical miles (NM); ¼ NM; ½ NM; ¾ NM; 1 NM;1-2 NM; 2-3 NM; or larger);
        - Description of the proposed operation;
        - Attachments (e.g., other pertinent information pertaining to the operation such as graphical depiction of the operation location(s));
        - Proof of FAA Airspace Authorization
    - Type of sUAS
        - Fixed wing, vertical takeoff and landing, or hybrid;
        - sUAS manufacturer;
        - sUAS model;
        - Proof of registration; and
        - Whether the sUAS broadcasts FAA remote identification information.

[6] The Office of Airports publishes the current version of grant assurances online at: https://www.faa.gov/airports/aip/grant_assurances/.

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DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

CERTIFICATE OF WAIVER OR AUTHORIZATION

ISSUED TO [redacted] POC PHONE NUMBER [redacted]

ATTN: [redacted]

This certificate is issued for the operations specifically described hereinafter. No person shall conduct any operation pursuant to the authority of this certificate, except in accordance with the standard and special provisions contained in this certificate, and such other requirements of the Federal Aviation Regulations not specifically waived by this certificate.

OPERATIONS AUTHORIZED

Operations under this certificate of authorization (COA) are limited to the maximum altitude listed below. This altitude is an absolute value and it shall not be added to the height of any structures.
Class of Airspace: **D**
At or Below: 400 Feet Above Ground Level (AGL)
Location: Sectors 1-5 as defined and depicted in Attachments 1 & 2
Under the Jurisdiction of: [redacted]
Airport Identifier: [redacted]

LIST OF WAIVED REGULATIONS BY SECTION AND TITLE

N/A

STANDARD PROVISIONS

1. A copy of the application, made for this certificate, shall be attached and become a part hereof.
2. This certificate shall be presented for inspection upon the request of any authorized representative of the Federal Aviation Administration or of any State or municipal official charged with the duty of enforcing local laws or regulations.
3. The holder of this certificate shall be responsible for the strict observance of the terms and provisions contained herein.
4. This certificate is nontransferable.

NOTE - This certificate constitutes a waiver of those Federal rules or regulations specifically referred to above. It does not constitute a waiver of any State law or local ordinance.

SPECIAL PROVISIONS

Special Provisions 1 to 3 , inclusive, are set forth in this authorization.

This certificate [redacted] is effective from [redacted] to [redacted] , and is subject to cancellation at any time upon notice by the Administrator or his/her authorized representative.

BY DIRECTION OF THE ADMINISTRATOR

FAA Western Service Area

For [redacted]

[redacted]

_____ _____

_____

14 CFR 107.41 Airspace Authorization
FAA Form 7711-1 [redacted]

SPECIAL PROVISIONS

1. CONTACT INFORMATION:

a. [redacted] is the person designated as responsible for the overall safety of Unmanned Aircraft System (UAS) operations under this COA. During UAS operations for on-site communication/recall, the Responsible Person shall be continuously available for direct contact at [redacted] by [redacted] or designated representative.

b. The Responsible Person listed on this COA must maintain a current list of pilots by name and the remote pilot certificate number(s) associated with the COA holder's operation. This list must be presented for inspection upon request from the Administrator or an authorized representative.

2. SCHEDULE OF FLIGHT OPERATIONS:

a. The operator must be aware of systems in the airport environment that produce High Intensity Radiated Fields (HIRF) and ensure that the Unmanned Aircraft (UA) is capable of operating within the HIRF level produced by those systems. Further, the operator must actively monitor the control link for any degradation or radiofrequency interference. When there is an indication that HIRF levels for the UA may be exceeded or that radiofrequency interference exists or may develop, the operator must immediately terminate the operation, report the event, and cease conducting operations at that location until the issues can be mitigated.

b. This COA and the Special Provisions shall be in effect between sunrise and sunset local time, except when complying with the operating requirements in 14 CFR § 107.29(a) while operating at night.

c. **UAS operations are prohibited in conjunction with non-participating manned aircraft.** Non-participating aircraft are defined as those aircraft not operating within the constraints of the Letter of Agreement between [redacted] The Remote Pilot will operate on a "not to interfere" basis; airport aviation traffic and testing has priority. In the event that a manned aircraft requests to take-off or land while UAS operations are in progress, ATC will notify the remote Pilot in Command to suspend UAS operations until cleared.

d. When operating in Sector 1: UAS operations are prohibited while non-participating manned aircraft are taxiing on taxiways Alpha, Bravo, and Juliet that fall within the area defined as Sector 1 and/or taking-off or landing on runways 12/30. UAS must remain within the geo-fenced lateral and vertical limits depicted in Attachments 1 and 2 while conducting flight operations.

e. When operating in Sector 2: UAS operations are prohibited while non-participating manned aircraft are taxiing on taxiways Alpha, Charlie, Delta and Echo that fall within area defined as Sector 2 and/or taking-off or landing on runways 12/30, 4/22, or 8/26. UAS must remain within the geo-fenced lateral and vertical limits depicted in Attachments 1 and 2 while conducting flight operations.

f. When operating in Sector 3: UAS operations are prohibited while non-participating manned aircraft are taxiing on taxiways Alpha, Echo, Foxtrot, and Hotel that fall within area defined as Sector 2 and/or taking-off or landing on runways 12/30, 4/22, or 8/26.

g. When operating in Sectors 4 and 5: UAS must remain within the geo-fenced lateral and vertical limits depicted in Attachments 1 and 2 while conducting flight operations.

h. The facility may disapprove, terminate, restrict, or delay UAS flight operations covered by this COA at any time.

i. The operator is responsible for reviewing the current UAS Facility Map (UASFM) prior to each flight, noting any changes to the area of operations (i.e., airspace modifications, TFRs, etc.). Open the UASFM website at https://udds-faa.opendata.arcgis.com, scroll down and open the "Visualize It" section.

3. EMERGENCY/LOST LINK/LOST COMMUNICATIONS PROCEDURES:

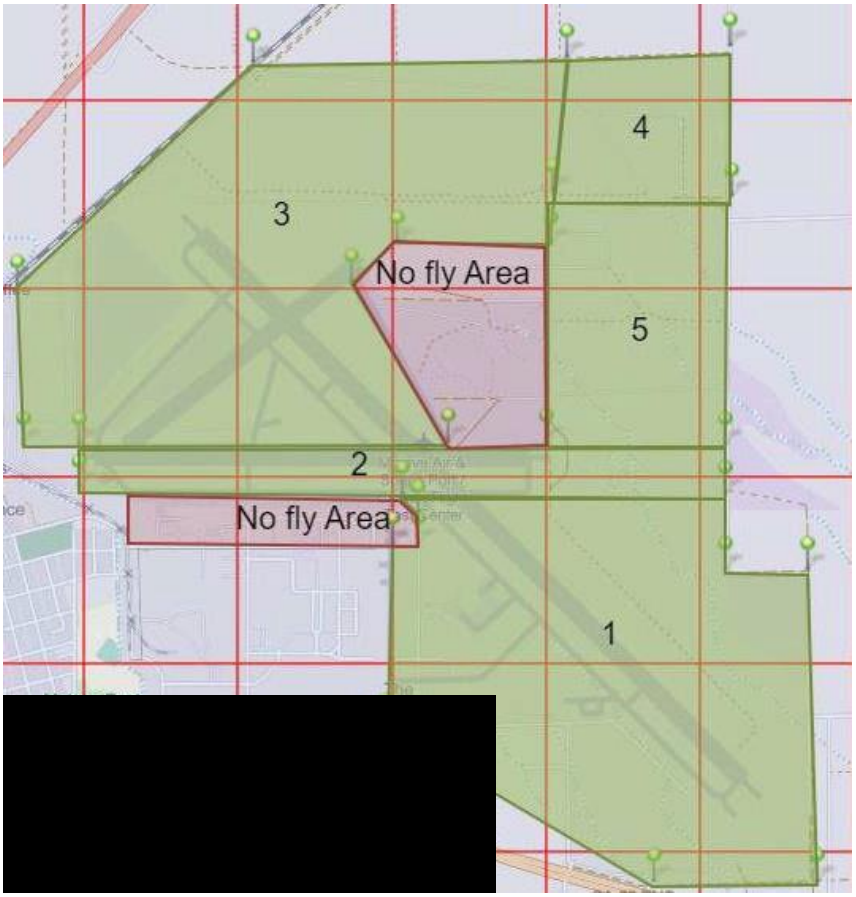
a. If the UAS loses communications or loses its Global Positioning System signal, the Unmanned Aircraft must return to a pre-determined location within the operating area and land.

b. The Pilot in Command must abort the flight in the event of unpredicted obstacles or emergencies.

Attachment 1

Reference OPERATIONS AREA Map

Class of Airspace: D
At or Below: 400 Feet AGL
[redacted] for Airport UASFM
Location: (in Green) See Attachment 2 for Sector Coordinates
Map created as of 6.27.2022
Updates of published UASFM at: https://udds-faa.opendata.arcgis.com



Attachment 2

Sector 1 Location:

[redacted]

Sector 2 Location:

[redacted]

Sector 3 Location:

[redacted]

Sector 4 Location:

[redacted]

Sector 5 Location:

[redacted]

ATTACHMENT 3: PATHS TO UAS FLIGHTS TODAY

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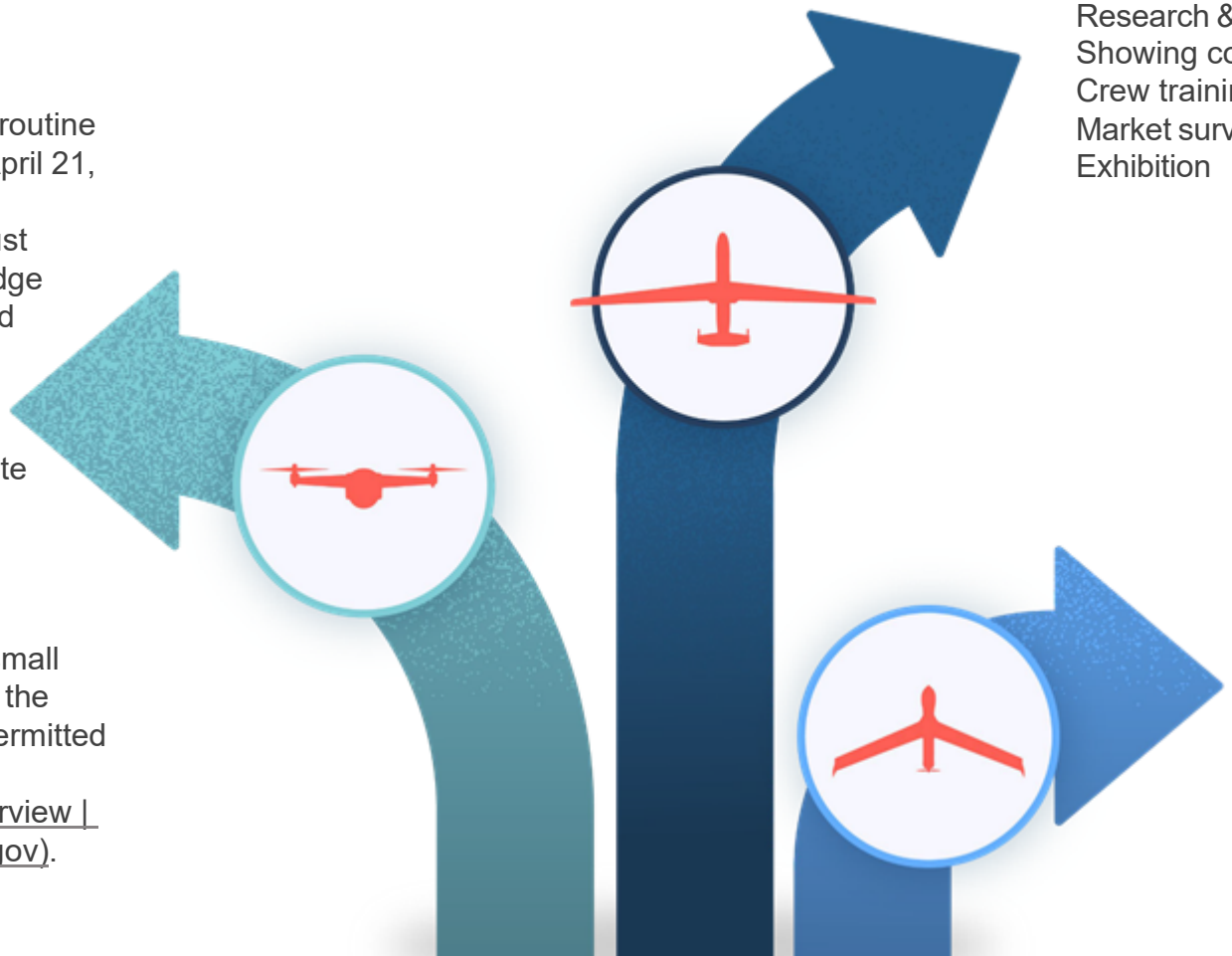
Paths to UAS Flight Today

Multiple ways to fly UAS for non-recreational reasons

Part 107

- UAS < 55 lbs.
- Class G Airspace*
- Visual Line of Sight*
- At or below 400ft*
- Fly during day*
  - a. Night Operations: This rule allows routine operations of small UAS, beginning April 21, 2021, at night under two conditions:
    - i. The remote pilot in command must complete an updated initial knowledge test or online recurrent training, and
    - ii. The small unmanned aircraft must have lighted anti-collision lighting visible for at least three (3) statute miles that has a flash rate sufficient to avoid a collision.
- Fly at or below 100mph*
- No operations over people*
  - a. The ability to fly over people varies depending on the level of risk that a small UAS operation presents to people on the ground. Operations over people are permitted subject to the following requirements: Operations Over People General Overview | Federal Aviation Administration (faa.gov).



Airworthiness & Type Design

- Type certificate required for standard airworthiness certificate
- Standard airworthiness certificate allowed for carrying persons or property for compensation or hire (with appropriate operational approval)
- Experimental Airworthiness Certificate for:
  - Research & Development
  - Showing compliance
  - Crew training
  - Market survey
  - Exhibition

49 USC §44807

- The successor to 333 exemptions
- UAS ≥ 55 lbs.
- Pilot requirements on case-by-case basis
- Requires COA for airspace authorization
- Authority expires in 2023

* May apply for a waiver or airspace authorization to fly beyond requirement