

Unmanned Aircraft Systems (UAS) for Public Safety



Federal Aviation
Administration



Presented to: American Mosquito Control Assn

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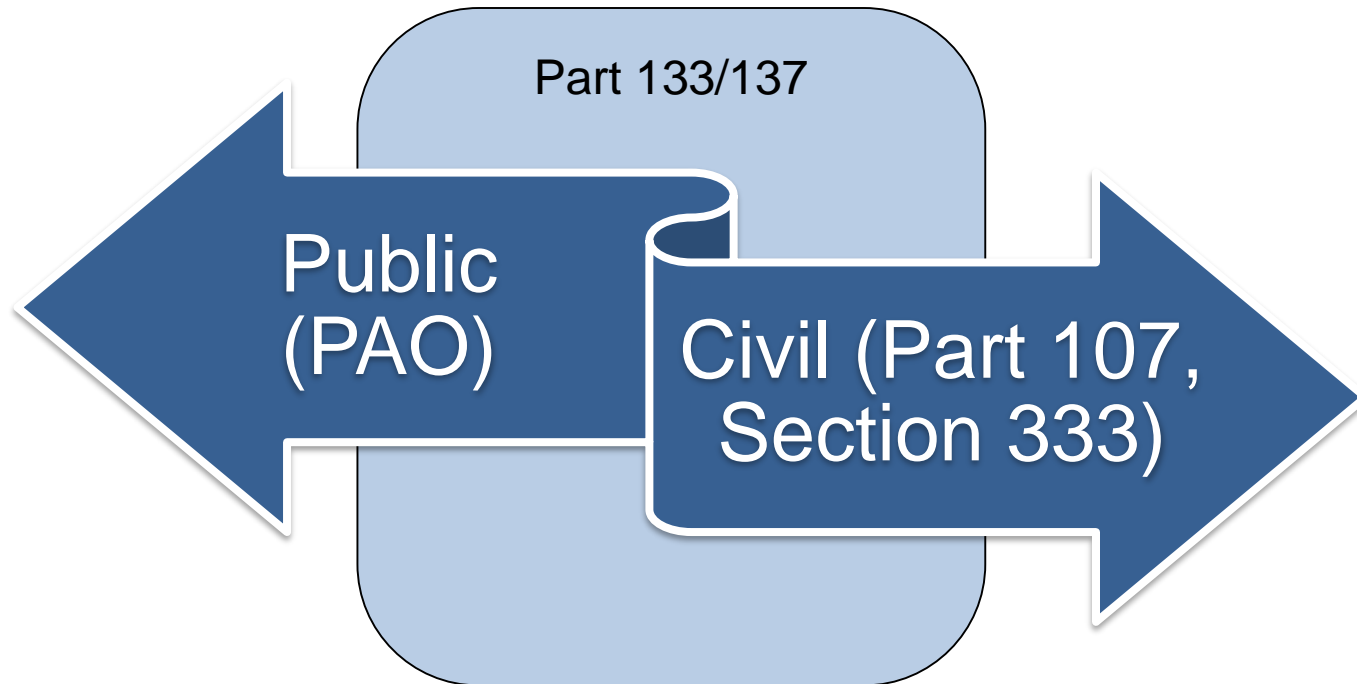
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FAA Mission

The FAA's continuing mission is to provide the safest, most efficient aerospace system in the world.



How Will Your Department Operate?



Assess each mission, plan ahead, and understand the rules

Which is Best for Your Department?

- Public Declaration Letter required
- NOTAM required for each flight
- Monthly report required
- Night ops allowed
- Emergency ops over people allowed
- No aircraft weight restriction
- Blanket and/or Jurisdictional COA options
- Part 137 license not required (but still must comply with portions of it)

Public Aircraft



- Civil pilot certificate required
- Weight of aircraft and payload matters
- Written authorization through the DroneZone or LAANC required to operate in controlled airspace
- Exemption required for HAZMAT
- Part 137 certificate required for Ag Ops

Civil (Part 107, Section 333)



Getting Started

- **Start with the end in mind**
 - Use cases
 - What do you want your UAS to do for you? What can be approved?
- **Learn about the legal frameworks**
 - Public: Title 49 U.S.C. §§ 40102(a)(41) and 40125
 - Civil: Part 107, Section 333, Experimental, Type Certificated
- **Must fully comply with applicable flight rules**
- **Each mission must be flown under one or the other set of rules**



How to Get Started as a Civil (Part 107) Operator

- UAS up to 55 pounds = Part 107
- Get all UAS pilots Part 107 certificated
- Register all UAS on DroneZone
<https://faadronezone.faa.gov/#/>
- HAZMAT not permitted without exemption
- If waivers to regulations are needed, complete the online waiver request on DroneZone
- Authorizations to operate in Class B, C, D, and E surface area airspace, requested in DroneZone or through LAANC



How to Get Started as a Public Aircraft

- **Confirm Public Aircraft eligibility 49 USC 40102(a)(41)**
- **Review Advisory Circular 00-1.1A Public Aircraft Operations**
- **Obtain Public Declaration Letter (PDL) from City, County, State Attorney**
 - Suggested guidance available
 - Send copy of PDL to FAA by email and snail mail
- **Register each UAS in DroneZone**
- **Complete COA Application online (CAPS)**



Authorizations for PAO and Section 333 Exemption Holders

- **Request User ID and password for online Public COA application (CAPS) from FAA**
- **Complete COA application online in CAPS**
 - Start a New Public COA if PAO
 - PDL must be accepted first
 - Ensure UAS already registered
 - Start a New Civil COA if 333 exemption holder
 - Need 333 exemption number first



Public Aircraft Operations or Section 333 Exemption Certificate of Authorization (COA)

- **Blanket Area (US Airspace) COA**

- Operations in Class G, day and night
- Typically processed in 10 business days

- **Jurisdictional (Area Boundary) COA**

- Defines a specific operating area where UAS operations may take place (size of city, county, state) needs to be coordinated with Flight Standards and Air Traffic
- Processing time 60 business days or more



Emergency Authorizations & Waivers

Special Governmental Interest (aka SGI or e-COA) Amendment/Authorization/Waiver

- Requires prior approved active COA for PAO, or Part 107/Section 333 for Civil
- Enables operations outside of approved COA provisions or civil rules
- For actual emergencies only



When Do You Need a SGI Authorization

Need additional operational provisions



Flying in a Temporary Flight Restriction (TFR)



Flying in controlled airspace



If you checked any of these boxes, call the FAA System Operations Support Center (SOSC) at 202-267-8276

You will need to provide information about your proposed flight, including:

- Location (lat/long) and maximum altitude
- Your Part 107 remote pilot certificate number or COA information
- Take-off and landing times
- The nature of the mission, and who is being supported

Online UAS Registration

- **Commercial or Public Aircraft Operators flying under part 107 or a COA must register online**
 - You will need to provide an email address, physical address, and the make, model, and serial number (if available) of each sUAS
- **UAS over 55 lbs. must use the paper-based registration process**

Go
here

FAADroneZone

Welcome to the FAADroneZone

Fly sUAS under Part 107

I need to register my small unmanned aircraft for recreational, commercial, governmental, or other purposes under [Part 107](#). Each drone must be registered at a cost of \$5.00 and registration is valid for a period of 3 years. Also use this option to apply for a waiver/authorization, or reporting an accident under Part 107.

Register

Fly Model Aircraft under Section 336

I need to register my small unmanned aircraft to fly with an aero-modeling club and following all requirements of the [Special Rule for Model Aircraft](#).

Register

Already registered? [Log In](#) to your existing account.

For general information about drones, [rules for flying](#), and how to [become a drone pilot](#), visit the [FAA website](#).

[Register a drone that weighs 55 lbs. or more.](#)

Handy Tools and References

Help with Operations

- **B4UFLy App:** https://www.faa.gov/uas/where_to_fly/b4ufly/
- **Part 107 Waivers:** <https://faadronezone.faa.gov/#/>
- **NOTAM Entry:** <https://www.1800wxbrief.com/Website/uo>

Understanding Regulations

- **AC 00-1.1A:** Public Aircraft Operations
- **14 CFR Part 107:** Small Unmanned Aircraft Systems
- **AC 107-2:** Small Unmanned Aircraft Systems (sUAS)
- **AC 137-1B** Agricultural Aircraft Operations
- **14 CFR Part 133, Part 137, Part 135**

General Information

- **FAA UAS Webpage:** <https://www.faa.gov/uas/>

Emergency Operations

- **Sys Ops Sec:** (202) 267-8276, 9-ator-hq-sosc@faa.gov
https://www.faa.gov/uas/getting_started/emergency_approval/

UAS Aerial Spraying Operations

- **Civil spraying operations conducted with UAS require additional coordination**
 - Public Aircraft Operations are not subject to hazmat requirements under 49 CFR 171.1 (d) (5)
- **UAS <55 pounds = Part 107, and need an exemption from 107.36**
- **UAS >55 pounds = Section 333 exemption plus exemptions from several sections of the CFR, including Part 61, Part 91, and Part 137**



Aerial Spraying Operations

- **Must obtain a Part 137 certificate through their local Flight Standards District Office**
- **CSOP (Certification Services Oversight Process) – takes at least 6-9 months, and requires petitioning for relief from certain parts of Part 137**
 - By the start of the formal *application phase* the operator must have petitioned for an exemption
 - By the start of the *demonstration phase*, they must have been granted exemption
- **Certification Process (3rd Option)**

Low Altitude Authorization Notification Capability (LAANC)

- **Industry-developed application with FAA airspace data**
- **Provides access to controlled airspace near airports through near real-time processing of airspace authorizations below approved altitudes for part 107 operators.**
- **Provides FAA's ATC visibility into where and when planned UAS operations will take place.**
 - DoD and Contract towers not currently included
- **Rolling out in waves regionally**



Questions?



- For questions about operations contact the Help Desk:

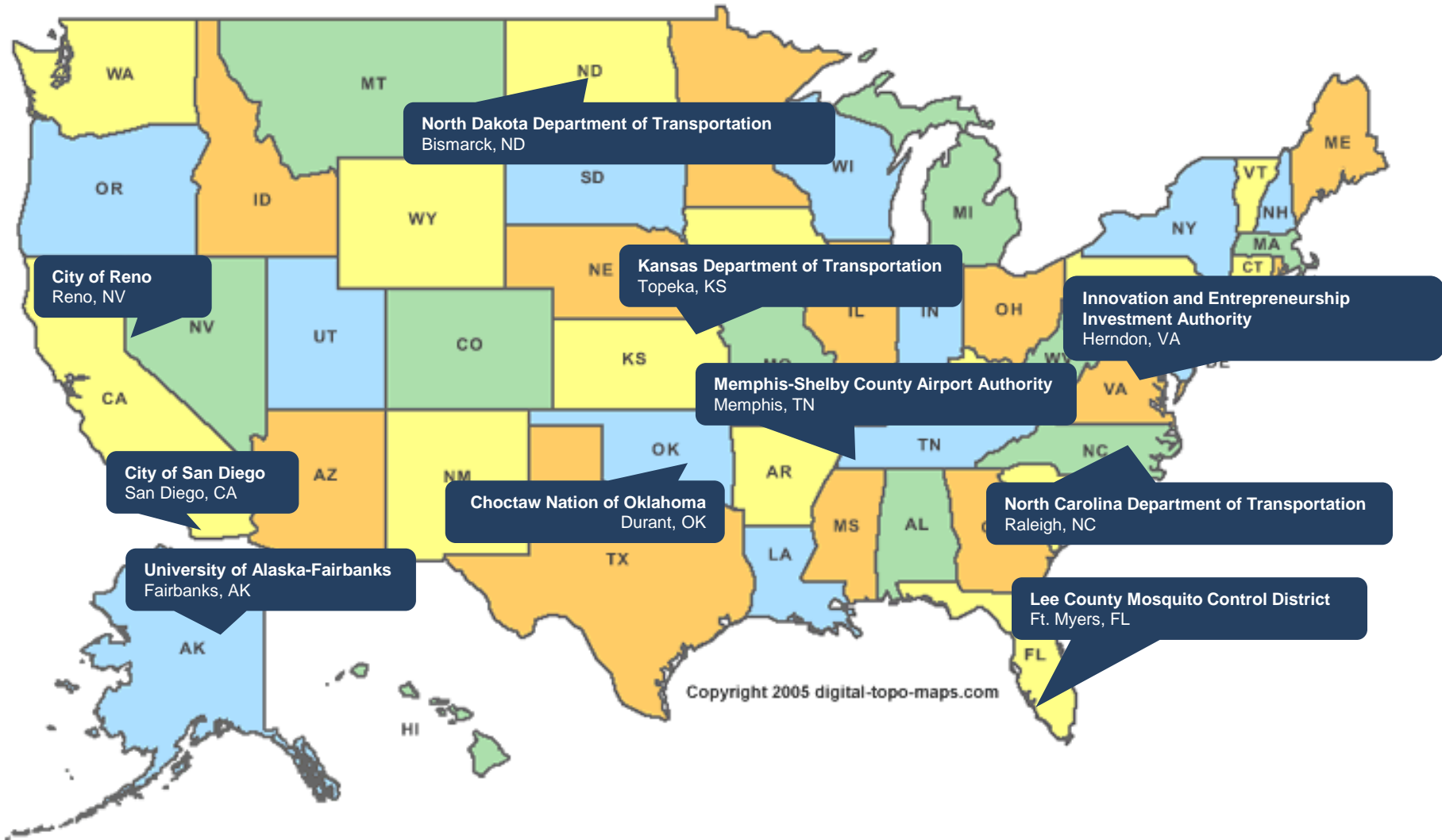
UAShelp@faa.gov or 844-FLYMYUA



Backup Slides



UAS IPP Participants



Aerial Spraying Regulations

14 CFR Regulations for exemption

- **UAS under 55 pounds**
 - **14 CFR 107.36**
- **UAS 55 lbs. +**
 - §§ **61.23(a) (c); 61.101(e)(4) & (5); 61.113(a); 61.315(a)**
 - **91.7(a); 91.119(c); 91.121; 91.151(a)(1)(b);**
 - **91.405(a); 91.407(a)(1); 91.409(a)(1)(2); 91.417(a) & (b)**
 - **137.19(c); 137.19(d); 137.19(e)(2)(ii), (iii), and (v);**
 - **137.31(a); 137.31(b); 137.33(a); and 137.42**

