UAS in the Mix at Non-Towered Airports

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HEAT MAP OF FAA sUAS REGISTRATION

704,767 hobby and commercial
43,588 commercial

UAS Registrations, FAA Source, as of Feb 14, 2017
Academy of Model Aeronautics
http://amablog.modelaircraft.org/amagov/drone-legislation/
Classifications of UAS

sUAS Operation

UAS Operations and Airports
CLASSIFICATIONS OF UAS

How much does your UAS weigh?

If it goes up in the air, it is included in the weight.

0.55 lbs. (250 grams)

55 lbs. (25 kg)

Source: adapted from FAA https://registermyuas.faa.gov/
sUAS

0.55LBS – 55LBS

Registration
sUAS must be registered at https://registermyuas.faa.gov/

If it the UAS is not registered but should be, then the owner/operator will be subject to civil and criminal penalties.

Accidents and Unsafe Operation
Must report sUAS accidents per Part 107.9 through online form https://www.faa.gov/uas/report_accident/

Unsafe sUAS operation should be reported to local law enforcement and FAA Regional Operations Center (Great Lakes Region 847-294-8400)
FAA Great Lakes Regional Operations Center, Joint Security and Hazardous Materials Safety Office

24-hour operation center: 847-294-8400

Source: FAA https://www.faa.gov/about/office_org/headquarters_offices/arc/
REPORTED SIGHTINGS

Factoid: FAA receives more than 100 reports each month

FAA Source from November 2014 to September 2016

2616 reported sightings
FAA Airspace Restrictions
https://www.faa.gov/uas/where_to_fly/airspace_restrictions

Rules for stadiums or sporting events, wildfires, restricted or special use airspace, national parks, military areas, airports, and TFRs

source: FAA
https://www.faa.gov/uas/where_to_fly/no_drone_zone
WHERE TO FLY A DRONE
WEBSITES OFFER FREE MAPS OF RESTRICTED AIRSPACE (NO DRONE ZONE)

Smithsonian

Air Map
https://www.airmap.com/

FAA Temporary Flight Restrictions
FAA has a mobile app to help drone operators: B4UFLY
https://www.faa.gov/uas/where_to_fly/b4ufly/
WHERE TO FLY A DRONE

Understand the airspace before you fly!

source: FAA www.faasafety.gov
https://www.faasafety.gov/gslac/ALC/course_content.aspx?cID=42&sID=505&preview=true
WHERE TO FLY A DRONE

I FLY SAFE

All drones are aircraft—even the ones at the toy store. So when I fly a drone I am a pilot. Before I fly I always go through my pre-flight check list. I regularly check the safety guidelines at faa.gov/uas

FEDERAL AVIATION
ADMINISTRATION

knowbeforeyoufly.org | faa.gov/uas

FLY SMART, FLY SAFE, AND HAVE FUN!

FAA developed a safety checklist for flying a drone

https://www.faa.gov/news/uploads/?newsId=84326
WHAT ARE THE EFFECTS OF UAS OPERATIONS FOR AIRPORTS

Potential Cost
• Funding new UAS facilities
• Special emergency equipment

Potential Benefits
• Fuel flowage fees
• Landing fees
• Ramp space rent and tie downs
• Repurpose office space and hangar space for rent
• Operations or communications center rent or use fees
• Industrial park space rent or use fees
• Special emergency equipment and staff standby or response

(ACRP Report 144)
COMMUNITY INVOLVEMENT

Airports might consider ways to engage local residents, general public and stakeholders

Coordinate with local communities to hold outreach on UAS topics:
- Communicating with ATCs and airports.
- Understand the changing UAS rules
- Who is doing the flying
- Benefits to the community
- Status of regulation
- The future of UAS

For more information, see ACRP Report 144

Conduct or coordinate UAS training courses:
- Generate Revenue
- Test preparation
- Commercial – Remote Pilot
- Recreational
- K-12 teacher workshops
Missions, aircraft type, number, and operations
Communication requirements to include radio frequencies
Data collection and storage
Hangar space or aircraft storage space
Ramp space and aircraft preparation areas
Runway use and length requirements (to include time required on the runway prior to takeoff)
Launch areas (if different from a runway)
Recovery areas (if different from a runway)
Ground control station space (office space or mobile office space)
Ground support equipment area (equipment space necessary within close proximity to the UAS launch site or runway end)
Fuel type and storage requirements
Maintenance and parts storage areas
Classroom and briefing space
Drone Detection System – SkyTracker

- Using strategically located radio frequency sensors to detect common UAS frequencies and triangulate the location of the device and the operator
- http://www.caci.com/Skytracker/

Geo-fencing

- An alert or text messages will be sent to user.
- Or Keep the drone out from some particular areas.
THEN, THERE ARE GOLDEN EAGLES...

EAGLES BEING TRAINED TO CAPTURE DRONES NEAR AIRPORT IN FRANCE

http://fortune.com/2017/02/22/drones-eagles-france/
1. FAA UAS webpages (https://www.faa.gov/uas/)
2. FAA sUAS registration (https://registermyuas.faa.gov/)
3. FAA B4UFLY (https://www.faa.gov/uas/where_to_fly/b4ufly/)
6. AC 91-57A Model Aircraft Operating Standards
8. AAAE’s source for UAS integration (http://www.uashub.org)
RESEARCH ON UAS OPERATION AT AIRPORTS

ACRP Reports

3. Integrating UAS into Airports (pending)
4. Evolving Law on Airport Implications by Unmanned Aerial Systems Operations (pending)
**FAA CENTERS OF EXCELLENCE**

**THREE CENTERS THAT MAY BE OF PARTICULAR INTEREST FOR UAS INFORMATION**


PEGASAS - Partnership to Enhance General Aviation Safety, Accessibility and Sustainability. https://www.pegasas.aero/

https://www.youtube.com/watch?v=bWUAa7QTJ6k
DRONES AND THE AIRPORT MANAGER

- Pay attention to the rules today
- Keep paying attention to the rules as they are modified
- Help the community understand the UAS
- Engage the community
- See this an opportunity

“The fact is, aviation has never stood still. And the pace of change is only going to keep accelerating. That means we need to get comfortable with always being a little uncomfortable.”

QUESTIONS?