

# UAS Integration Activities

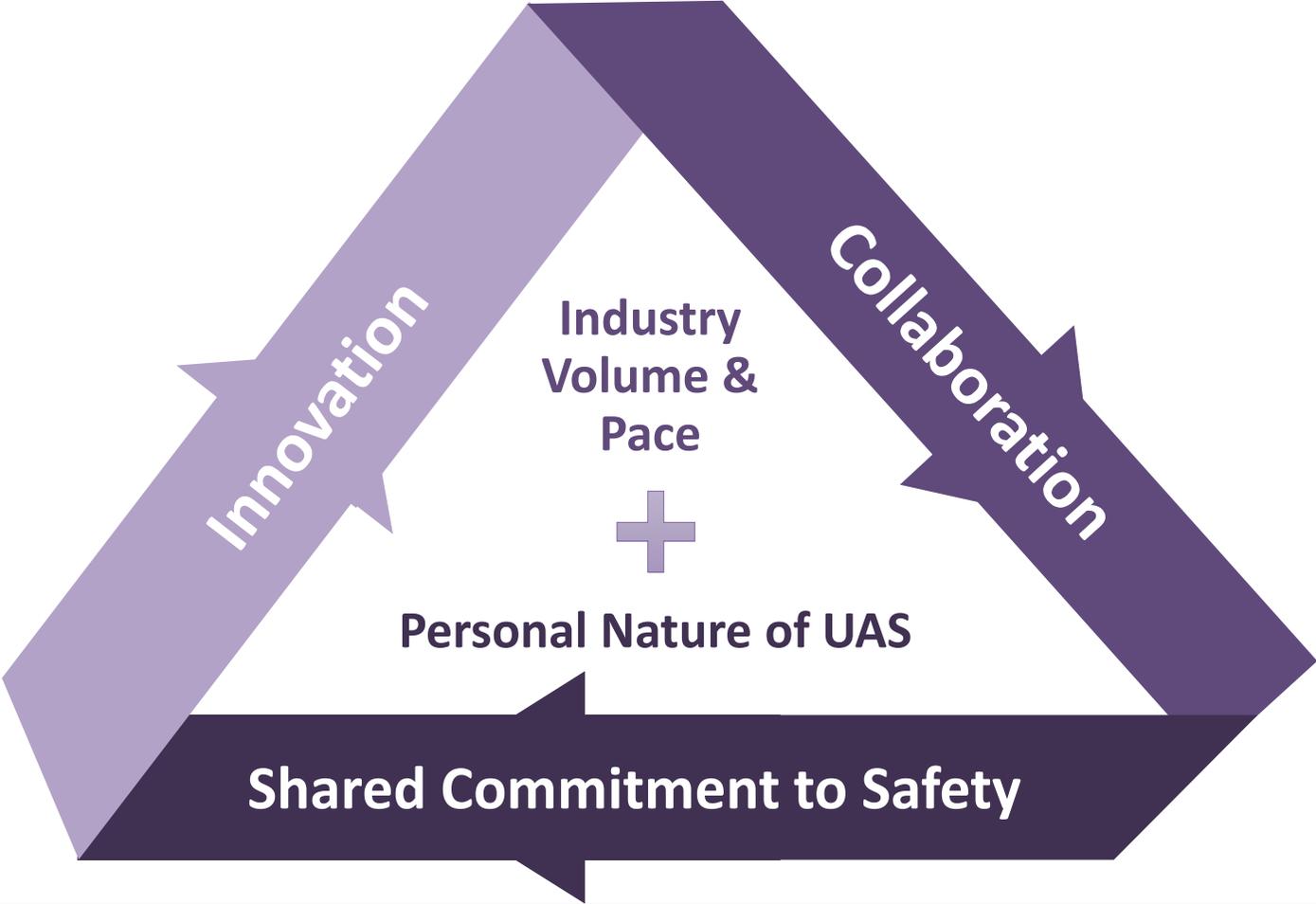
**Presented to:** International Council of the Aeronautical Sciences

**Presented by:** Ian Ross  
Senior Representative/Attaché  
Federal Aviation Administration

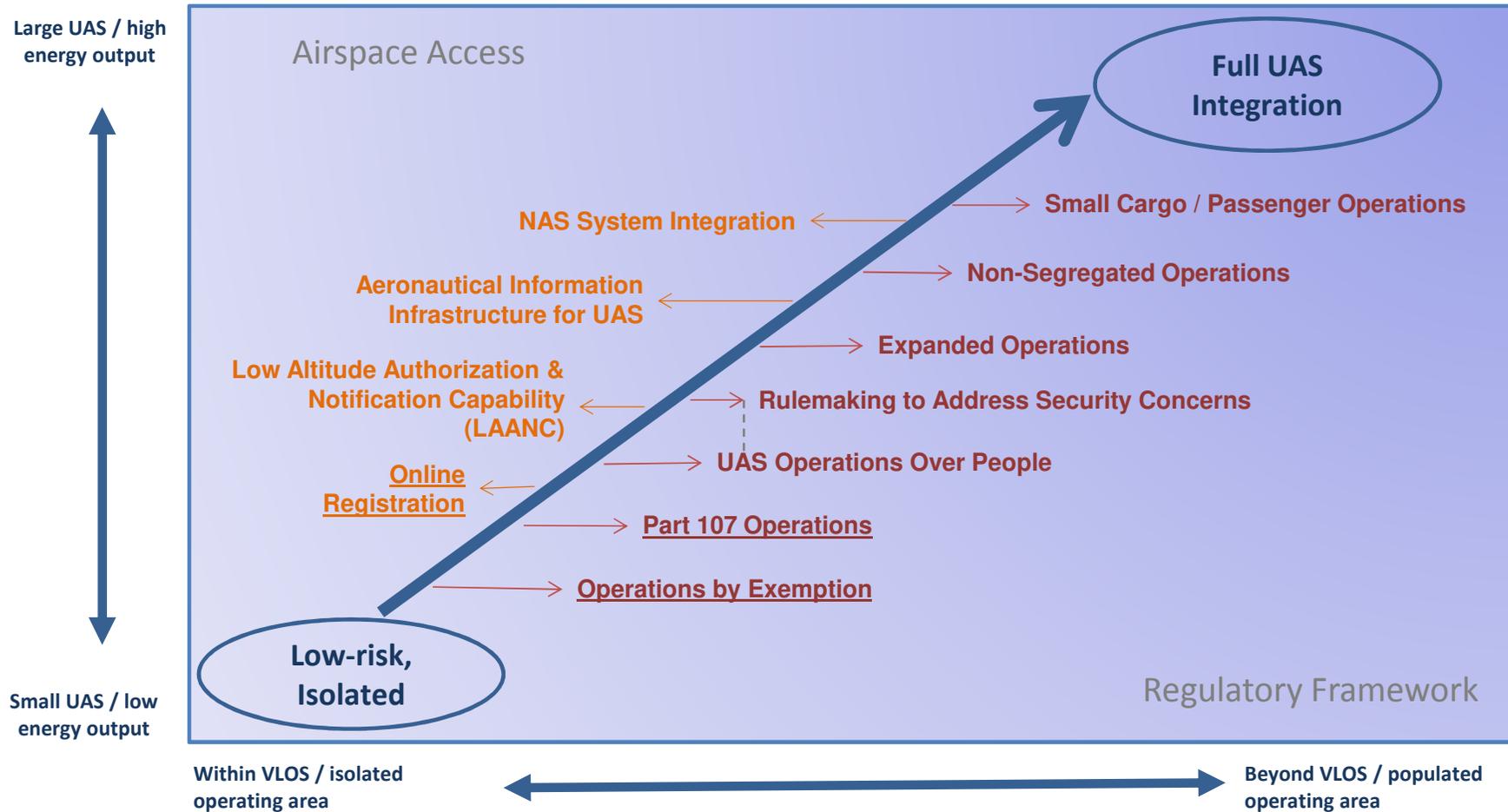
**Date:** 12 September 2017



# Meeting the Challenge



# The Path to Full Integration



# Authorizing Small UAS Operations (Part 107)

- Rule took effect on August 29, 2016
- UAS must weigh less than 55 lbs. and be registered
- Operator must obtain a Remote Pilot Certificate
- Visual line-of-sight operations during daylight, 400 feet or below or within 400' of a structure
- External load operations permitted if the load does not affect flight operations or control
- Must yield right-of-way to manned aircraft
- No operations over people

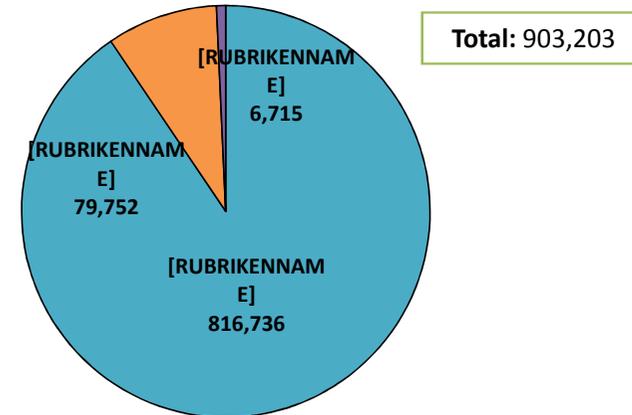


# UAS By the Numbers

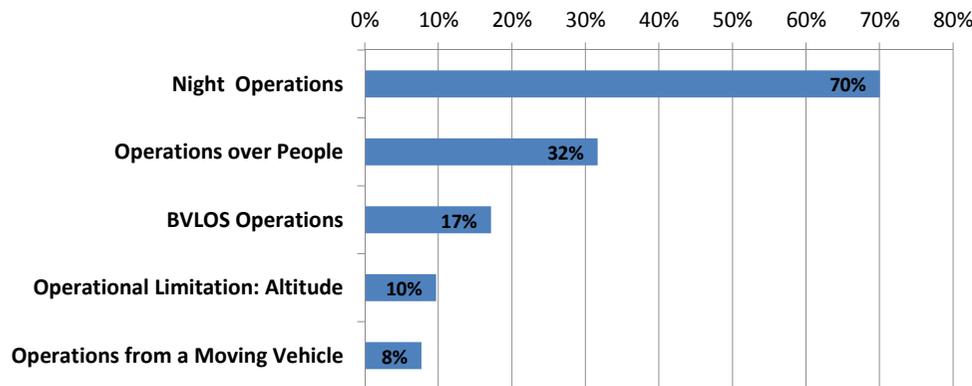


**Total Remote Pilot Certificates Issued: 59,952**  
**Total Knowledge Exams Passed: 41,641**  
**Knowledge Exam Success Rate: 92%**

## UAS Registrations



## Top 5 Waiver Requests



## Airspace Waivers/ Authorizations Approved

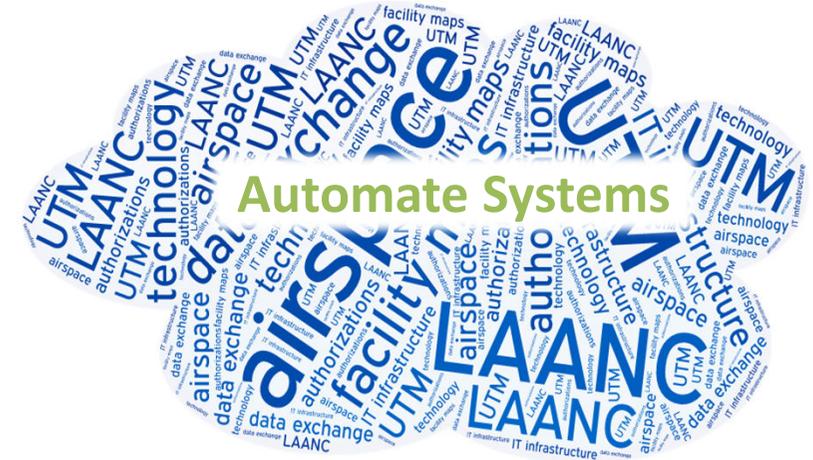
Class B	989
Class C	1,506
Class D	4,072
Class E	708
<b>TOTAL</b>	<b>7,275</b>



# Next Steps



# FAA 2017 UAS Priorities



# Expanding UAS Operations

3 Focus Area Pathfinders are informing more advanced operational concepts:



## 1. CNN

- Visual line-of-sight (VLOS) operations over people



## 2. Precision Hawk

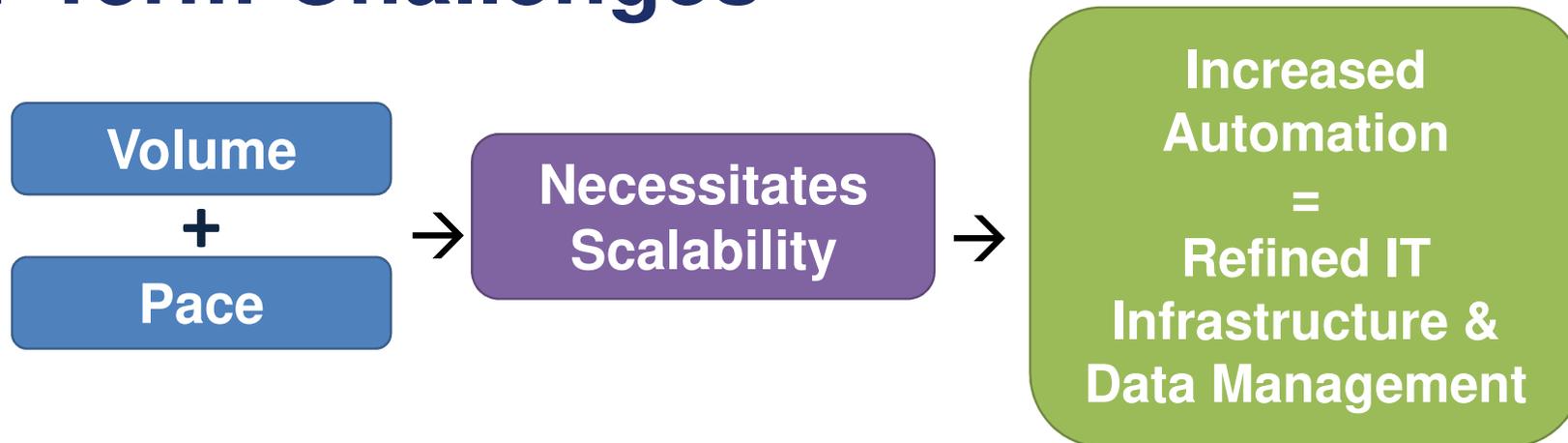
- Extended visual line-of-sight (EVLOS) operations in rural areas



## 3. BNSF Railways

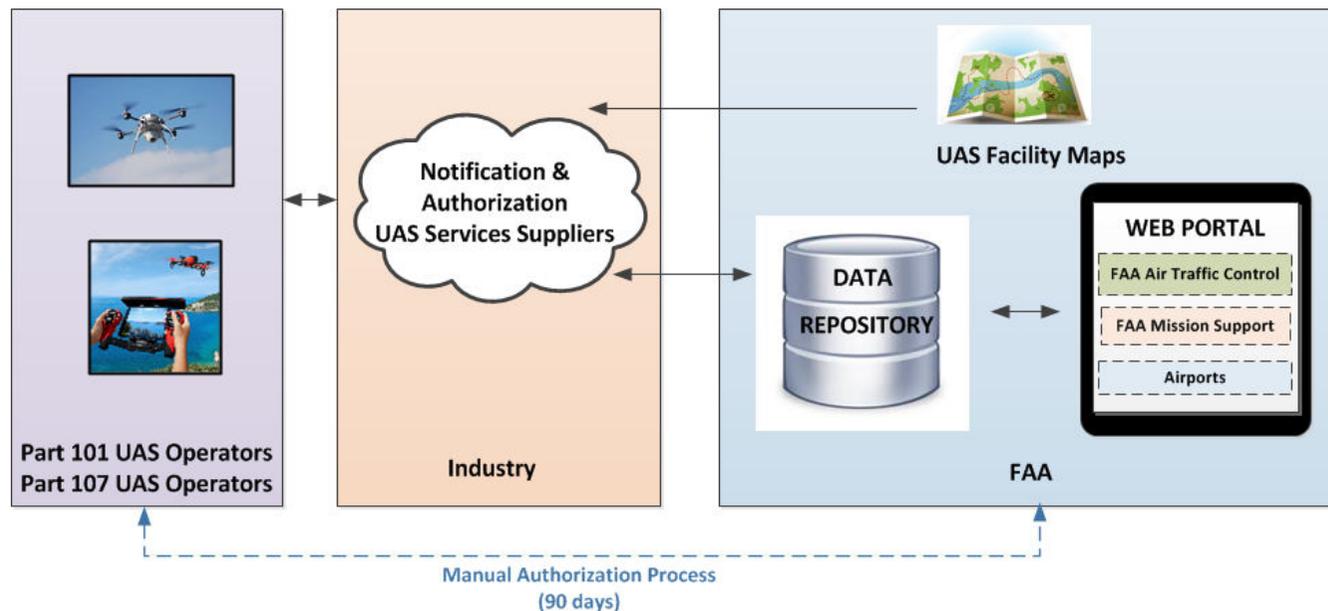
- Beyond visual line-of-sight (BVLOS) operations in rural areas

# Near Term Challenges



- The FAA is developing an IT gateway – a one-stop shop for all things UAS
  - This will support streamlined waiver and authorization requests for Part 107 operations, UAS registrations, report accidents, and more
- Airspace authorization requests are evaluated manually, and keeping up with the number of requests is challenging
  - The development of the Low Altitude Authorization and Notification Capability (LAANC) will allow for automated authorizations – for both hobby operators and Part 107 remote pilots

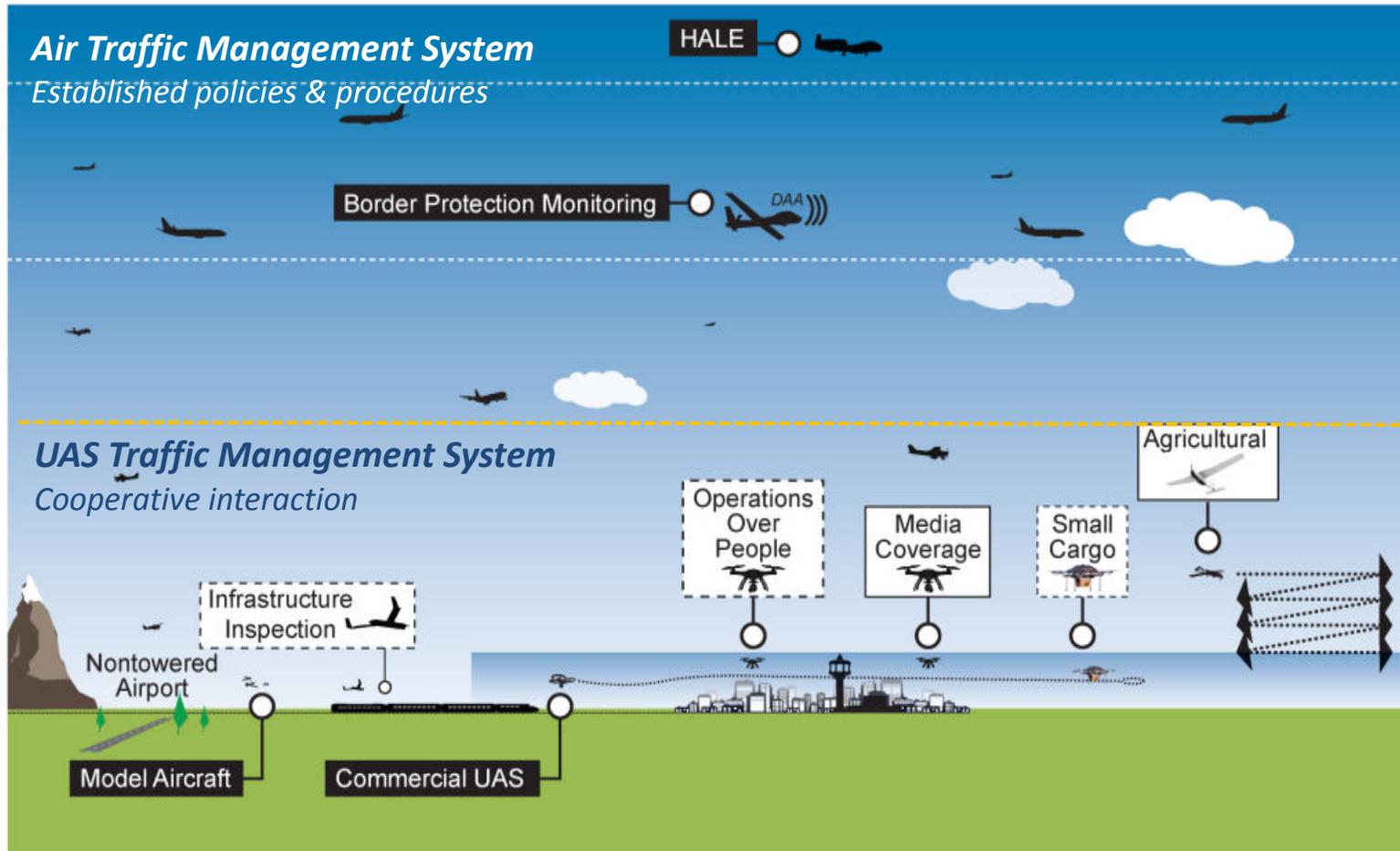
# Low Altitude Notification & Authorization Capability (LAANC)



## Goals

- Enable efficient Part 101/107 notification and authorization services to small UAS operators
- Provide the data exchange framework for UAS traffic management (UTM)

# Managing Airspace Access – UTM



# Security, Collaboration, and Outreach Initiatives



# UAS Detection Initiative

- The FAA partners with DHS, other government agencies, UAS Test Sites, and UAS Center of Excellence to evaluate UAS sensor detection systems at airports
- Industry Partners include:

**CACI**

**LITEYE™**

**SENSOFUSION**

**GRYPHON  
SENSORS™**  
— an SRC Company —



# Collaboration



# Education and Outreach



PRE-FLIGHT CHECKLIST

- I fly below 400 feet
- I always fly within visual line of sight
- I'm aware of FAA airspace requirements: [faa.gov/go/uastfr](http://faa.gov/go/uastfr)
- I never fly over groups of people
- I never fly over stadiums and sports events
- I never fly within 5 miles of an airport without first contacting air traffic control and airport authorities
- I never fly near emergency response efforts such as fires
- I never fly near other aircraft
- I never fly under the influence

**Federal Aviation Administration**



# Questions?



[www.faa.gov/uas](http://www.faa.gov/uas)

