

# UAS & You:

An Introduction to  
Drones and Their  
Applications

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WOODS & WILDLIFE  
CONFERENCE  
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# What are UAS?

Unmanned aerial systems are comprised of an unmanned aircraft and the equipment needed to control it remotely.  
Commonly known as "drones."



# To Drone or Not to Drone?

## Pros



Useful



Cheap



Efficient



Potential



Fun!

## Cons



Privacy



Safety



Legislative  
Uncertainty



Misuse



Specialized  
Knowledge

# Recreational vs. Commercial

## What's the Difference?



Recreational: Personal use, just for fun

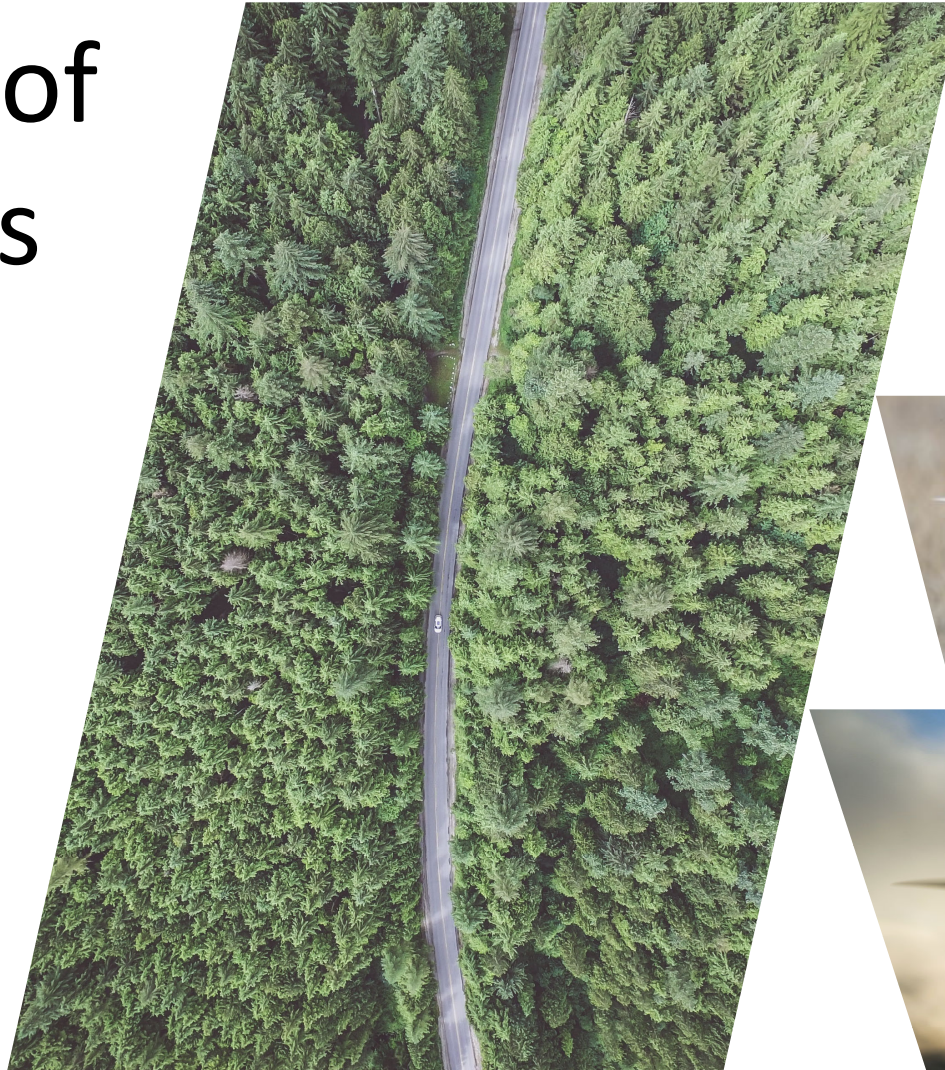


Commercial: Business use, for profit



# Types of Drones

Three  
Main  
Categories



1. Fixed Wing

2. Single Rotor



3. Multi-rotor





# Fixed Wing



Very long battery life



Pricy and more difficult to land



Commercial purposes





# Single Rotor



Heavier payload capabilities, durable



Complex, more dangerous



LIDAR, agriculture





# Multi-rotor



Inexpensive and stable



Battery life



Aerial imaging, inspection, and many more uses

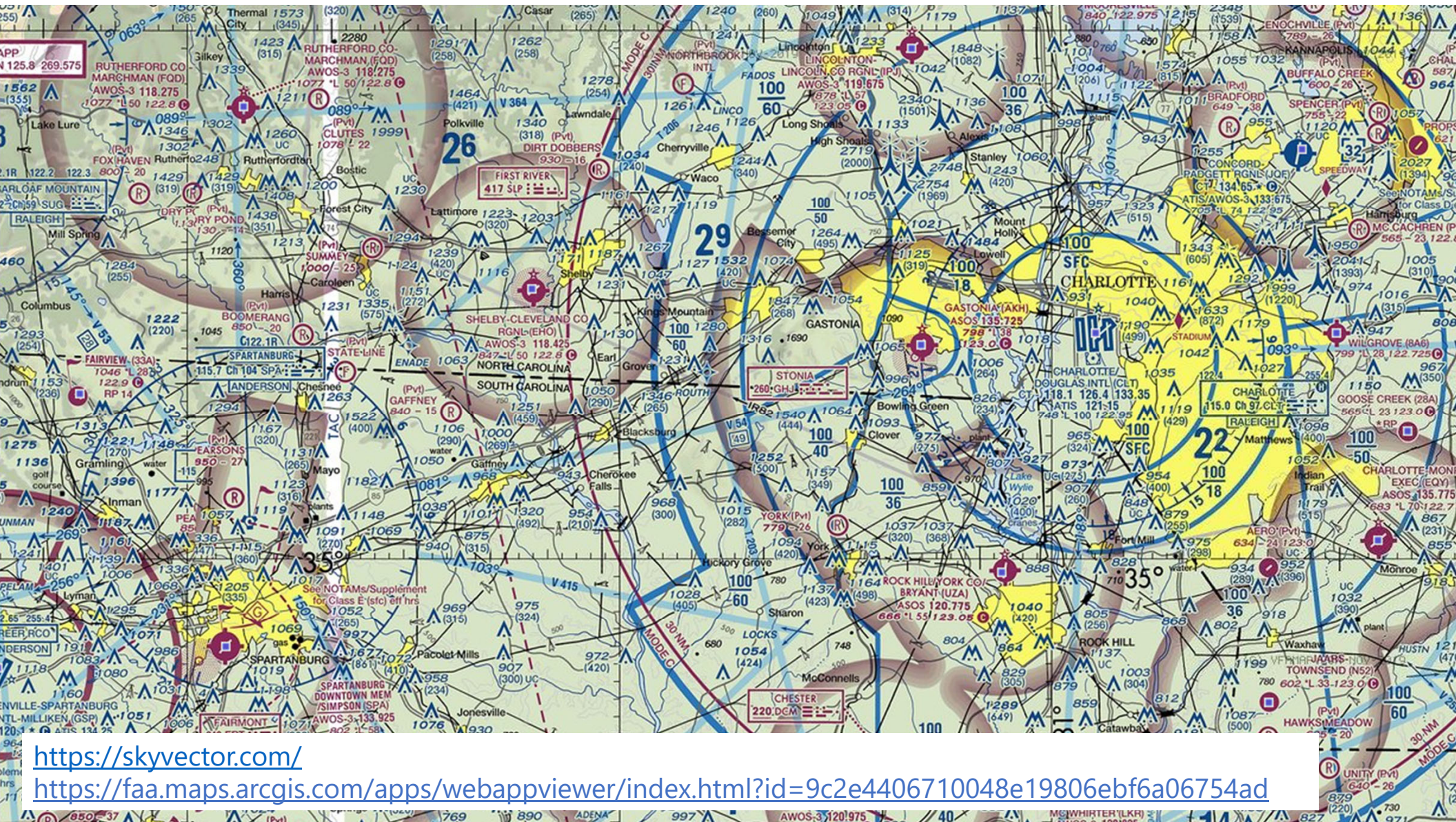
# Hybrid VTOL



# Regulations

## FAA Rules for Recreational UAS Operations





<https://skyvector.com/>

<https://faa.maps.arcgis.com/apps/webappviewer/index.html?id=9c2e4406710048e19806ebf6a06754ad>

# Commercial Part 107



Pass an initial knowledge test, and a recurrent knowledge test every 2 years



Be at least 16 years old and undergo a TSA background check



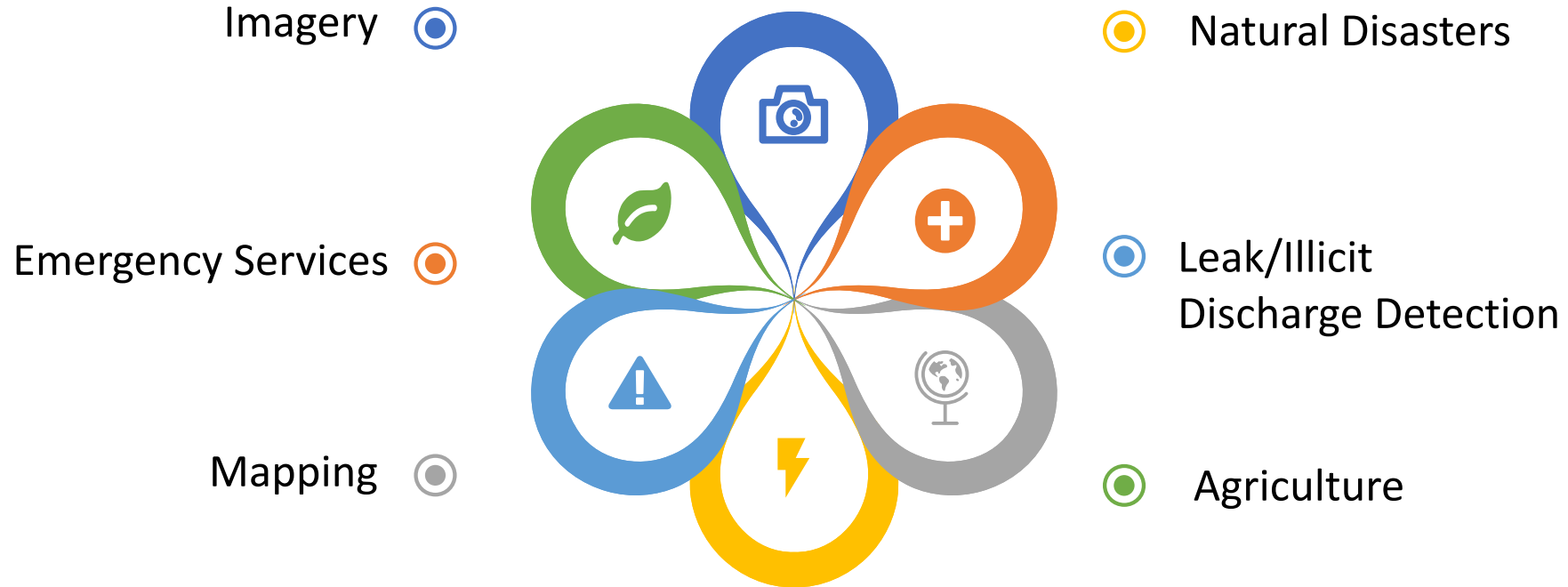
Some operations may require waivers (ex. night)



Conduct preflight inspection and report accidents to the FAA

# UAS Applications

Oh, the things you can do with drones...





## UAS and You: The Landowner



Streamline monitoring

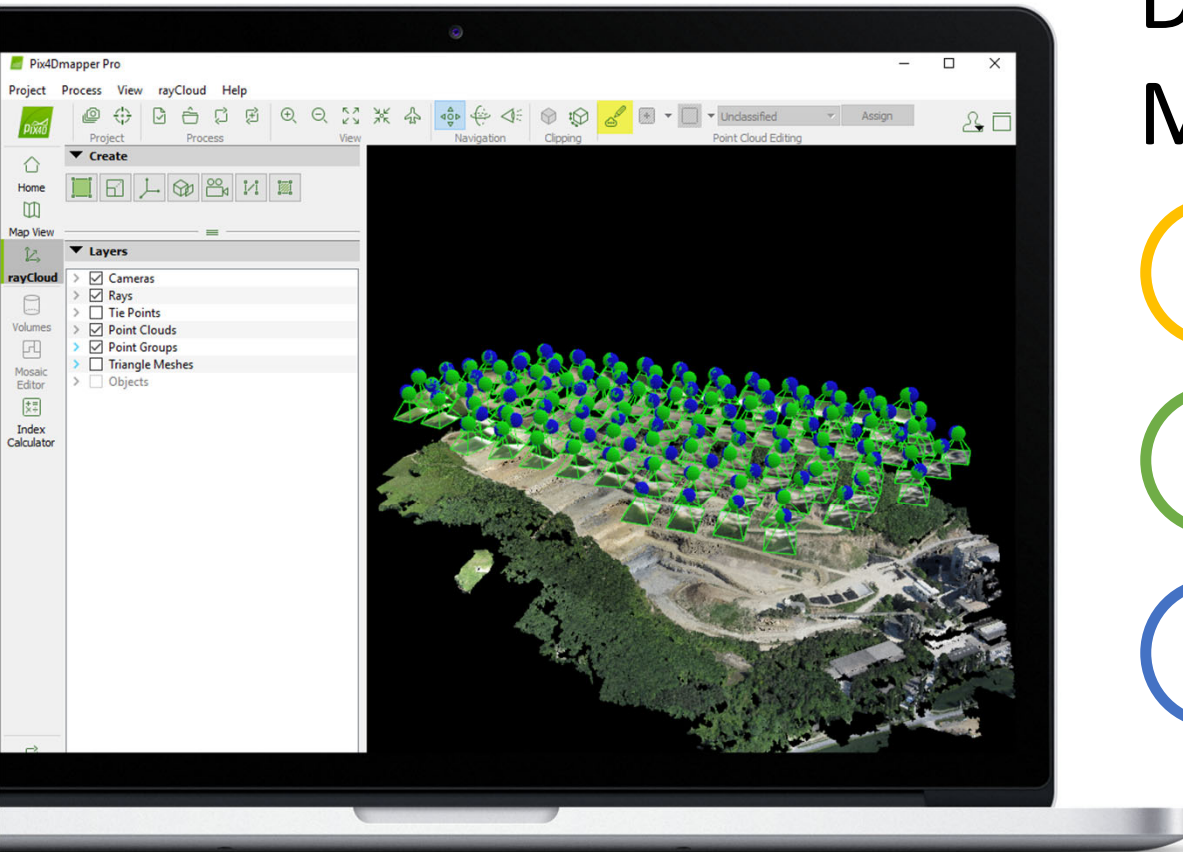


Documenting actions



Reduce wildfire risk

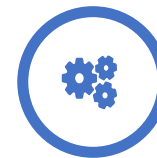
# Data Processing and Management



Drones are a tool for images/video



Need software to stitch images and perform calculations

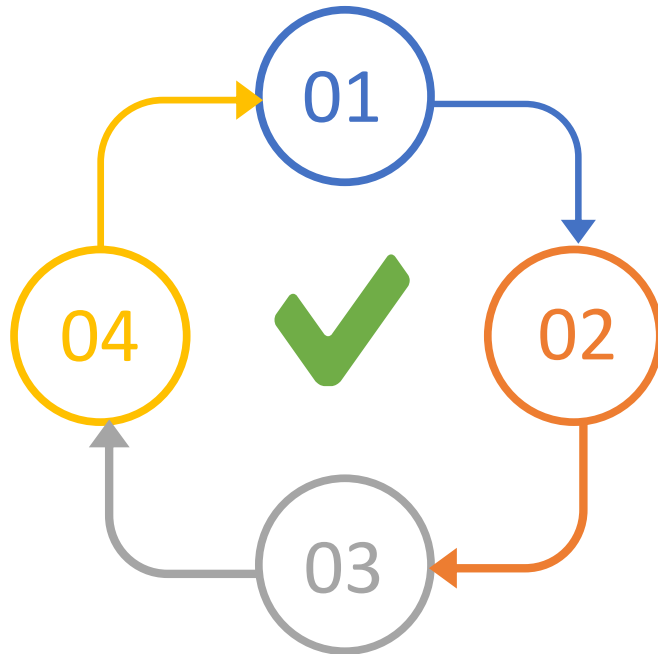


Agisoft Metashape, Pix4D, DroneDeploy



# Getting Started

## Do-it-yourself?



### 01. Access a drone

Rent, borrow, or buy. The possibilities are endless!  
Do your research.

### 02. Practice flying

Get comfortable! Explore different apps to program flights, edit videos, and more.

### 03. Apply your flying

Figure out how an aerial perspective could aid your land management the most.

### 04. Take action

Fly regularly, process the data, and act based on what you see and find.

# Things to Remember



UAS are not the answer to every situation.

They are tools with limitations.



# Questions?

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[www.faa.gov/uas/recreational\\_fliers/](http://www.faa.gov/uas/recreational_fliers/)  
<http://knowbeforeyoufly.org/learn-the-drone-laws/>