



# sUAS Legal and Regulatory Framework

*Multi-agency involvement in safety and privacy*

# Background

- The commercial usage of small Unmanned Airborne System (sUAS) is expected to grow exponentially over the next several years
- Reports have sUAS being used in the delivery of packages, spying, mapping, farming and wedding videos
- sUAS in the PDC professional sector will become part of a user's standard tool kit
- The FAA has developed and made public its proposed rulemaking
- PDC membership has the opportunity to contribute to the final FAA rulemaking
- FAA isn't the only policy component
  - The White House has begun drone privacy activity for data capture
  - State and local regulations are in play

# Uses of sUAS Extends to Many Sectors

- Military applications
- Aerial surveying of crops
- Aerial filmmaking
- Search and rescue operations
- Inspecting power lines and pipelines
- Counting wildlife
- Delivering supplies to inaccessible regions
- Border patrol missions
- Forest fire detection
- Surveillance
- Search & rescue missions
- Detection of illegal hunting
- Land surveying
- Fire and large accident investigation
- Landslide measurement and detection
- Crowd monitoring
- Mapping
- Real estate

# Federal and State Laws & Regulatory Decisions will affect sUAS Operations in the NAS

## Federal

- FAA will be primary agency responsible for Safety
- National Telecommunications and Information Administration Department of Commerce (Privacy)
- Congress (Privacy)
- Courts (Privacy)

## States

- Legislation (Privacy)
- Courts (Privacy)

# FAA considered types of sUAS in NAS

## Civil UAS

- Previously obtaining a Special Airworthiness Certificate in the experimental category for a particular UAS was the only way civil operators of unmanned aircraft are accessing the NAS
- Experimental certificate regulations preclude carrying people or property for compensation or hire, but do allow operations for research and development, flight and sales demonstrations and crew training
- Recent Section 333 exemptions have given operators an opportunity to pursue safe and legal entry into the NAS. This has created competition in the UAS marketplace, thus discouraging illegal operations and improving safety.

## Public UAS

- COAs are available to public entities (primarily Government or Govt. funded) that want to fly a UAS in civil airspace. Common uses today include law enforcement, firefighting, border patrol, disaster relief, search and rescue, military training and other government operational missions

## Model Aircraft

- Recreational use of airspace by model aircraft is covered by FAA Advisory Circular 91-57
- Limits operations for hobby and recreation to below 400 feet, away from airports and air traffic and within sight of the operator



# FAA Regulatory Update Small UAS Notice of Proposed Rulemaking (NPRM)

- Feb. 2015 - FAA held a press conference and release of rulemaking for sUAS NPRM: Operation and Certification of Small Unmanned Aircraft System
- Proposes rule for sUAS (less than 55 lbs.) and considerations for micro-UAS (up to 4.4 lbs.)
- FAA docket number FAA-2015-0150 opened for 60 days of comment
- Commercial operations still require COAs – 333 exemption
  - 28 exemptions granted to date, over 400 in review
- PDC team is in direct communication with the FAA via multiple venues

# FAA Regulatory Update – Feb. 15, 2015

## NPRM Summary

- Unmanned aircraft must weigh less than 55 lbs.
- sUAS must be within visual line-of-sight of the operator or visual observer and be close enough to see the sUAS unaided
- sUAS may not operate over any persons not directly involved in the operation
- Daylight-only operations (official sunrise to official sunset, local time)
- May use visual observer (VO) but not required
- First-person view camera cannot satisfy see-and-avoid requirement but can be used as long as requirement is satisfied in other ways
- Maximum airspeed of 100 mph & maximum altitude of 500 feet AGL
- Multiple airspace restrictions
- Multiple safety regulations
- Micro UAS provisions possible

# FAA Regulatory Update – FEB 15, 2015

## NPRM Summary

### Pilots are considered PUAS Operators and are required to:

- Pass an initial aeronautical knowledge test
- Be vetted by the Transportation Security Administration
- Obtain an unmanned aircraft operator certificate with a small UAS rating
- Pass a recurrent aeronautical knowledge test every 24 months and be at least 17 years old
- Make available to FAA UAS for inspection or testing and any associated documents or records
- Report an accident to the FAA within 10 days that results in injury or property damage
- Conduct a preflight inspection to include specific aircraft and control station systems checks

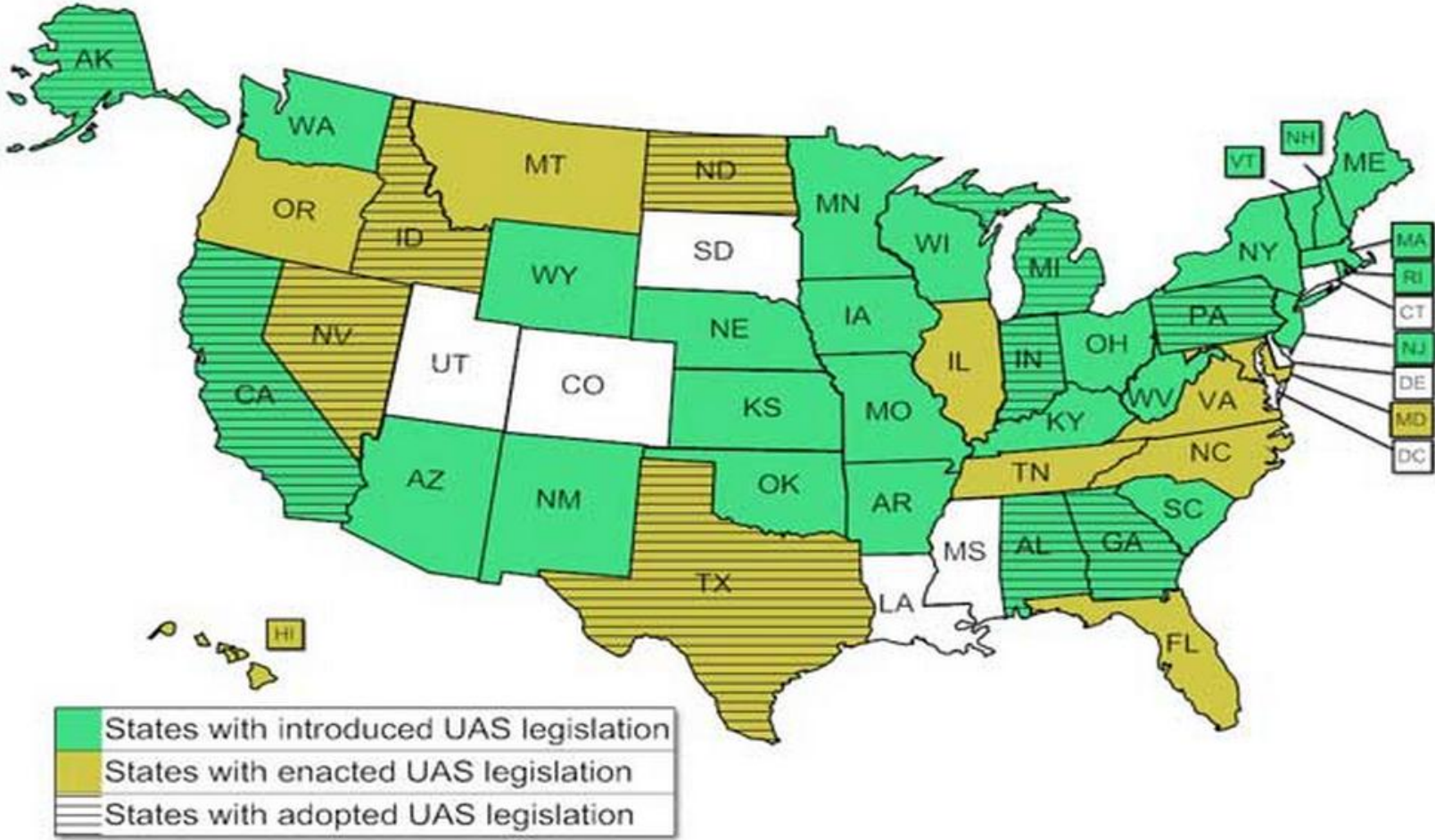
### UAS are required to:

- FAA airworthiness certification not required
- Maintain a small UAS in condition for safe operation and prior to flight must inspect the UAS to ensure that it is in a condition for safe operation
- Aircraft registration required (same requirements that apply to all other aircraft)
- Aircraft markings required



# Beyond FAA: UAS Legislative Map

UAS-based  
Regional  
Legislation  
Activity



# White House sUAS Privacy

- Privacy best practices for unmanned aircraft operations appear unlikely to address concerns that the aerial vehicles will be used to spy on people in their homes or abused by law enforcement officials conducting surveillance
- Several government agencies have the authority to address privacy issues
- Published reports suggest that President Obama has asked the National Telecommunications and Information Administration (NTIA), which has previously worked on do-not-track guidelines for cell phone data collection, to address the privacy issue
- The FAA established privacy requirements for UAS test ranges it set up at the end of 2013
- AUVSI has also come out in support of the reported White House plans.
  - “We welcome the President’s executive order and the attention to UAS at the highest levels of the government shows the tremendous potential of the technology,” the industry association said in a prepared statement.
- White House issues memo “Promoting Economic Competitiveness While Safeguarding Privacy, Civil Rights, and Civil Liberties in Domestic Use of Unmanned Aircraft Systems”





Thank You