



DRONES AND INSURANCE

Trends, Challenges and Policy Questions

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Presented in Collaboration with The Institutes Griffith Insurance Education Foundation



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Drones and Insurance: Trends, Challenges, and Public Policy Questions



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Outline

Overview of Drone Use

- Trends and Key Risks

Current Legal and Regulatory Environment

- Overview of Current Legal and Regulatory Environment
- Environment by Users

Coming Challenges and Changes in the Legal and Regulatory Environment

Insurance Issues and Trends

Conclusions



Overview of Drone Use

Drones or unmanned aircraft systems (UAS)

- Rapid growth
 - Over 770,000 consumer drones registered with the FAA as of March 2017

Sales Forecast Summary
Million sUAS Units

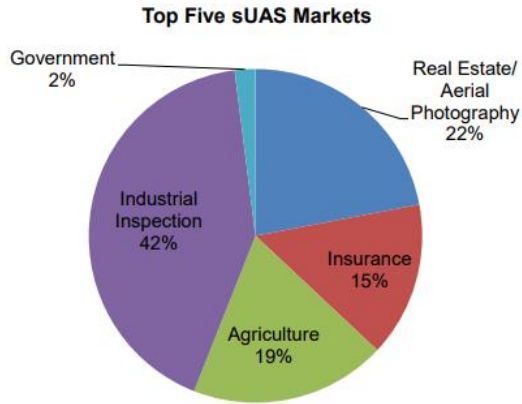
	2016	2017	2018	2019	2020
Hobbyist (model aircraft)	1.9	2.3	2.9	3.5	4.3
Commercial (non-model aircraft)	0.6	2.5	2.6	2.6	2.7
	2.5	4.8	5.5	6.1	7.0

Note: Numbers may not add due to rounding

FAA Aerospace Forecast Fiscal Years 2016-2036



Overview of Drone Use



Major economic impact

- 100,000 new jobs by 2022
- Economic impact of \$82 billion

(Association for Unmanned Vehicle Systems, 2013)

- Rapid innovation
- Wide variation in use personally and commercially

FAA Aerospace Forecast
Fiscal Years 2016-2036



Overview of Drone Use

- Major Risks
 - Safety
 - Privacy
 - Varying definitions
 - Changing legal and regulatory environment
 - Evolving insurance environment



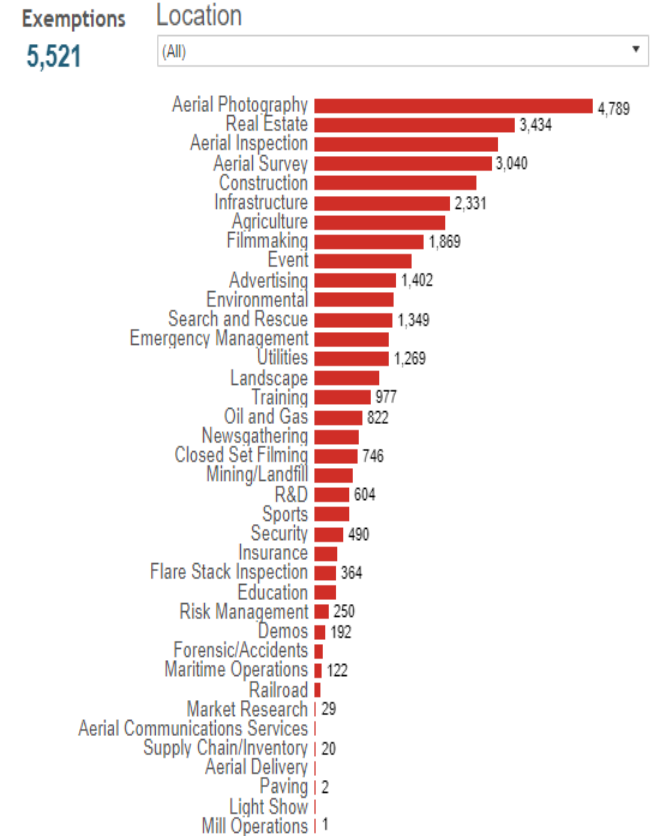
Photo: National Conference of State Legislatures, 2016



Current Legal and Regulatory Environment - Federal

Key Sources

- 2012 FAA Modernization Reform Act (FMRA)
 - Sections 331 and 336
- FAA Enforcement and Proposed Rulemaking
 - Requirements for non-recreational
 - Weigh under 55 pounds
 - Operate only during standard daylight hours and within visual sight
 - Must fly no higher than 500 feet and no faster than 100 mph
 - Operators must be at least 17 and pass the FAA knowledge test
 - Must be registered
- Exemptions under Section 333 of FMRA



From AUVSI Advocacy Website, 2017

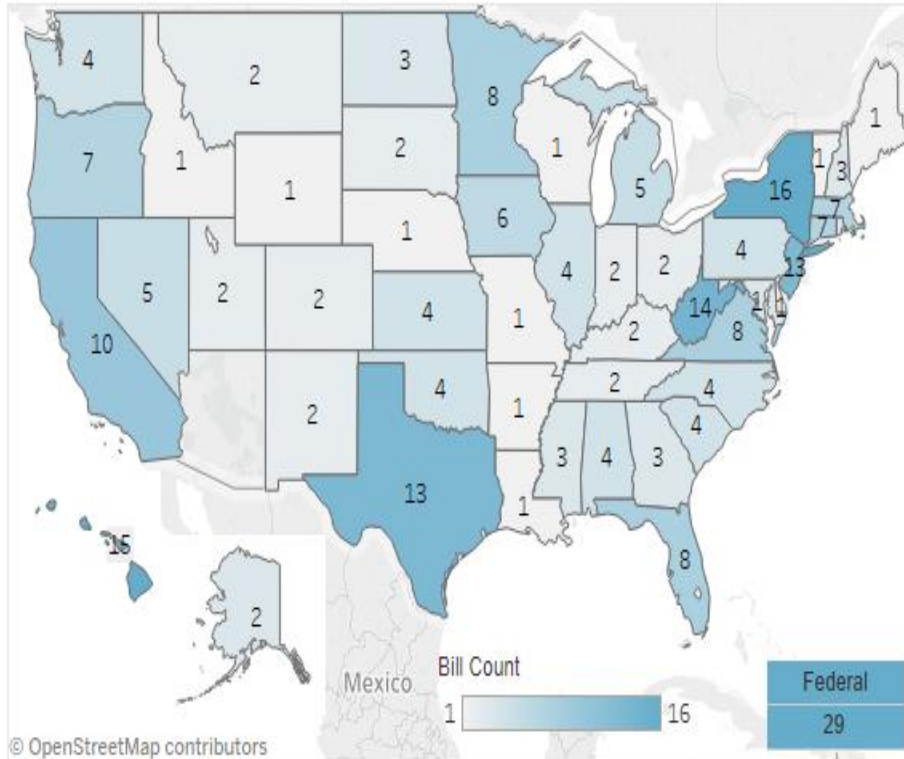


Current Legal and Regulatory Environment - State

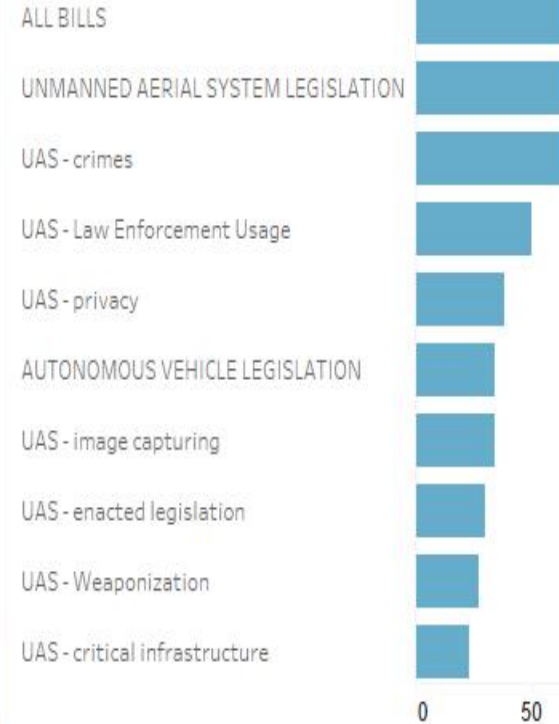
2017 State Legislative Map

Priority Bills Bill Details

Select states to filter by Legislature



Select the bars to filter by issue area

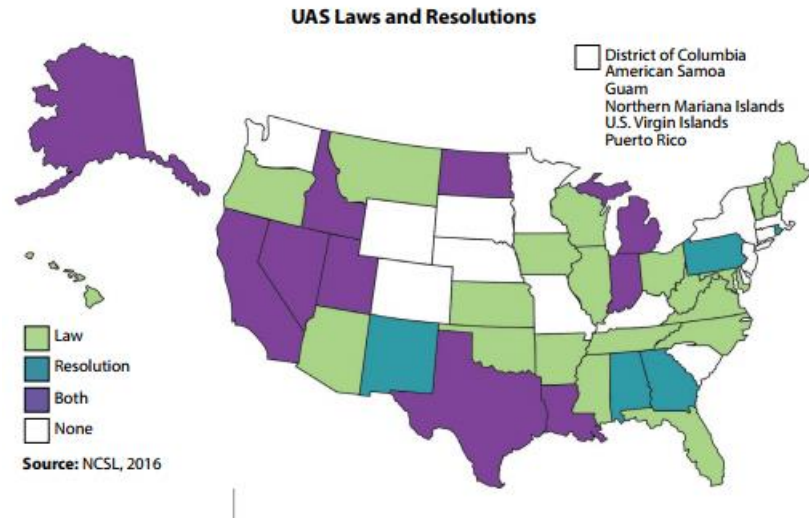


From AUVSI Advocacy Website, 2017 – Includes Autonomous Vehicle Legislation



Current Legal and Regulatory Environment - State

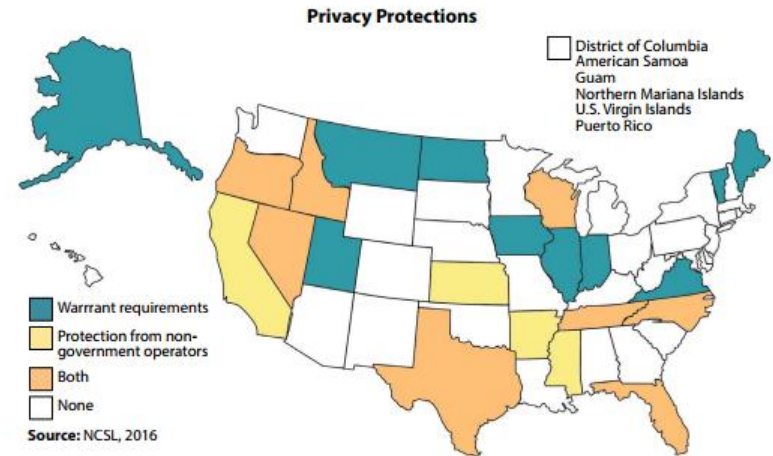
- Preemption
- Variety of bills and resolutions in different states



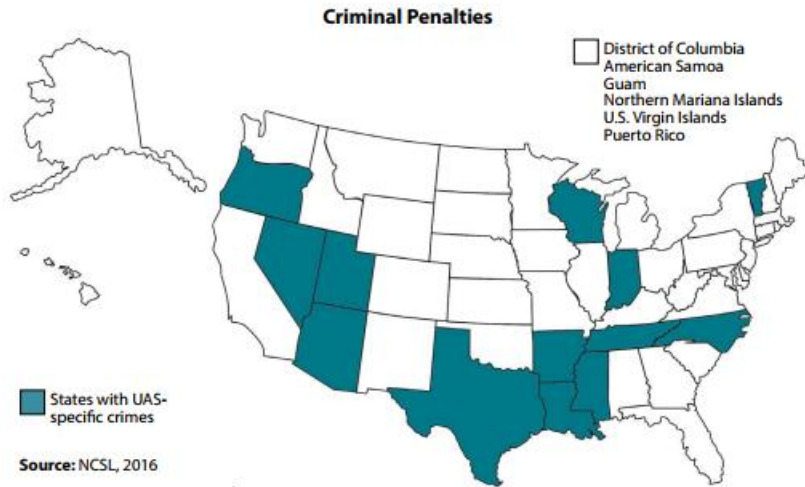
Current Legal and Regulatory Environment - State

Privacy

- Government Operators (i.e. Warrant requirements)
- Non-Government Operators
- Related Federal Issues



Current Legal and Regulatory Environment - State



Criminal penalties

- Considerable variation in issues
 - Interfering with law enforcement or public safety
 - Recklessness
 - Flying near critical structures
 - Adding weapons or lasers
 - Unlawful surveillance



Environment for Hobbyists



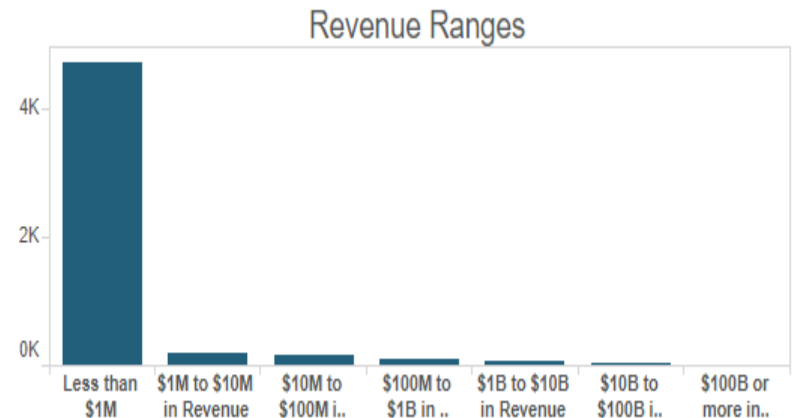
- Few regulations and laws
- Safety guidelines and registration requirements
- Potential criminal penalties for misuse
- Insurance issues
 - Homeowners insurance
 - Association insurance



Environment for Commercial Users

- Wide variety of legislation
- Registration requirements
 - Exemptions
- Large potential for profits however significant uncertainty in future regulation
- Insurance
 - Variation in terms and definitions
 - New products

Exemptions by Business Size



From AUVSI Advocacy Website, 2017



Environment for Government Use

- Limits on use with law enforcement
- Safety concerns
- Privacy concerns
- Retention of information obtained with drones
- Use of information obtained with drones



Photo from <https://www.linkedin.com/pulse/law-enforcement-use-drones-aerial-surveillance-jaevon>



Challenges and Changes - Regulatory and Legislative

- Defining drones as technology allows for smaller / stronger / faster drones
- Integration with FAA and traditional aviation
- Safety challenges as drone use increases
- Evolving issues related to privacy and trespassing
- Blurred lines between hobbyist use and commercial use
- Balancing innovation and safety/privacy concerns



Challenges and Changes – Insurance Markets

- Defining drones as technology allows for smaller / stronger / faster drones
- The need for data and understanding of risks in rapidly evolving market
- Understanding implications of rapidly changing rules, legislation, and regulation
- Defining exposures beyond traditional property and liability
- Blurred lines between hobbyist use and commercial use



Conclusions

- Skyrocketing drone use is creating new risks and opportunities
- Safety and privacy concerns drive many of the legislative questions
- Like all emerging technologies the insurance industry is working to understand risk and develop appropriate coverage and pricing



Questions?

Please submit them in the question box
of the GoToWebinar taskbar.

