Drones and Insurance

Trends, Challenges and 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

<table>
<thead>
<tr>
<th>Sales Forecast Summary</th>
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<td>Million sUAS Units</td>
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<thead>
<tr>
<th>Hobbyist (model aircraft)</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
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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
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

- 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.