

Drones Are Taking Off – What Every Attorney Needs to Know About Drone Law

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Overview

- The Business Case for Drone Use
- Legal Obstacles to Use
- Best Practices for Limiting Liability
- Anticipated Developments

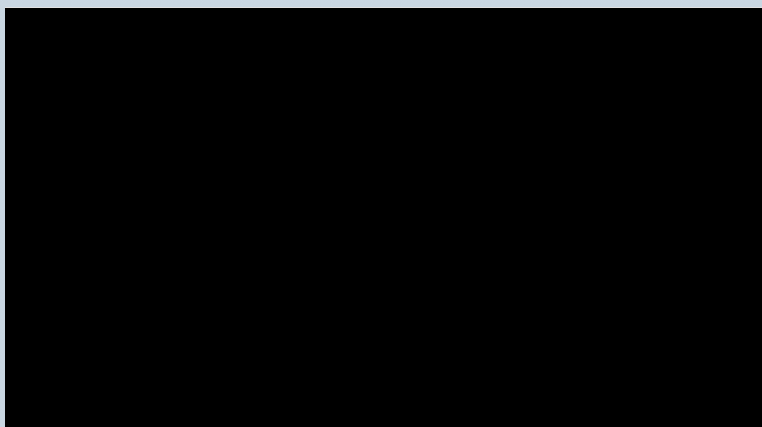


The Business Case for Drone Use

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Delivery



Agriculture



Racing



Construction



Entertainment



Benefits

- ❑ Faster
- ❑ Cheaper
- ❑ Safer
- ❑ Better



Legal Obstacles for Use

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News Report



Obstacles

- FAA Regulations
- Local Regulations
- Privacy Laws
- Liability Concerns
- Technology Issues
- Organizational Challenges



General FAA Regulations

- ❑ FAA defines UAS as aircraft
- ❑ Aircraft registration
 - ❑ .55 – 55 lbs
 - ❑ Over 13 years old



FAA Regulations

- ❑ Recreation
- ❑ Commercial
 - ❑ Section 333
 - ❑ Part 107



Section 333

- ❑ Requires pilot to operate drone
- ❑ Must show granting exemption is in public interest
- ❑ Must specify aircraft
- ❑ Must specify regulations from which exemption is requested



Section 333

- ❑ Typical conditions and limitations:
 - ❑ Less than 87 knots (100 mph)
 - ❑ Less than 400' AGL
 - ❑ Within visual line of site of PIC
 - ❑ One PIC for duration of flight
 - ❑ VO in verbal communication with PIC
 - ❑ Must petition for amendments
 - ❑ Good for two years from grant
 - ❑ Pre-flight inspection by PIC
 - ❑ Must follow manufacturer's recommended maintenance schedule



Section 333

- ❑ Typical conditions and limitations (cont.):
 - ❑ No operations at night (civil twilight flight OK)
 - ❑ No operation with 5 nautical miles of an airport unless a letter of agreement with that airport's management is obtained or a COA is issued
 - ❑ UAS must return to predetermined location upon LOS
 - ❑ Must have 5 minutes of reserve power in battery
 - ❑ Aircraft requires N-number
 - ❑ UAS must yield to manned aircraft
 - ❑ Must be 500 feet from all non-participating persons, vessels, vehicles, and structures unless there are barriers or permission from the non-participants
 - ❑ Permission of property owner must be obtained



Section 333

- ❑ Exempts the UAS from many FAA regulations, including:
 - ❑ Airworthiness certificate
 - ❑ Certification Procedures for Products and Articles
 - ❑ Display of N-number in letters 6" high
 - ❑ Prohibiting compensation for private pilots
 - ❑ Keeping a copy of a manual in the aircraft
 - ❑ Preflight action
 - ❑ Minimum safe altitudes
 - ❑ Altimeter settings
 - ❑ Fuel requirements
 - ❑ Maintenance requirements



Part 107

- ❑ Pilot
 - ❑ Must be 16 years old or older
 - ❑ Must pass knowledge test to obtain RPIC license
 - ❑ Must have TSA background check



Part 107

- ❑ Requirements
 - ❑ Aircraft must be less than 55 lbs.
 - ❑ Requires RPIC license
 - ❑ Within VLOS or VO
 - ❑ May pass out of view temporarily
 - ❑ No airworthiness certificate
 - ❑ RPIC must report to the FAA within 10 days any operation that results in serious injury, loss of consciousness, or property damage (to property other than the UAS) of at least \$50



Part 107

- ❑ **Limitations**
 - ❑ No night time flight
 - ❑ Max altitude 400' AGL or higher if within 400' of structure
 - ❑ Max speed 87 knots (100 mph)
 - ❑ Not over a person who is not directly participating in the operation
 - ❑ Not under a covered structure
 - ❑ Not inside a covered stationary vehicle
 - ❑ Not from a moving vehicle unless over a sparsely populated area
 - ❑ May operate in Class G airspace without air traffic control permission
 - ❑ Operations in Classes B, C, D, and E need approval from ATC
- ❑ **Can request waivers**



Part 107 Waivers

- ❑ 90 days prior to start of operations
- ❑ Specify regulation or airspace authorization at issue
- ❑ May be approved for up to four years
- ❑ Must describe geographic area
- ❑ Describe proposed operations
- ❑ Justify how operation may be performed safely



Part 107 Waivable Sections

- ❑ Operation from a moving vehicle or aircraft (§ 107.25)
- ❑ Daylight operation (§ 107.29)
- ❑ Visual line of sight aircraft operation (§ 107.31)
- ❑ Visual observer (§ 107.33)
- ❑ Operation of multiple small unmanned aircraft systems (§ 107.35)
- ❑ Yielding the right of way (§ 107.37(a))
- ❑ Operation over people (§ 107.39)
- ❑ Operation in certain airspace (§ 107.41)
- ❑ Operating limitations for small unmanned aircraft (§ 107.51)



Municipal Ordinances

- ❑ Directed to restricting:
 - ❑ Location
 - ❑ Time
 - ❑ Purpose of drone use
- ❑ Directed to requiring:
 - ❑ Permits
 - ❑ Privacy
 - ❑ Insurance
- ❑ Provide Penalties



State Statutes

- ❑ Florida Statute
 - ❑ Freedom from Unwarranted Surveillance Act
- ❑ Louisiana Statute
 - ❑ Preempts local regulation
- ❑ Preemption Issue
 - ❑ Operational restrictions not allowed
 - ❑ Traditional state and local police power are allowed (hunting, warrant, firearm, voyeurism)



Technology Issues

- ❑ Aircraft Maintenance
- ❑ Communication Links (fly aways)
- ❑ Short Product Lifecycle



Organizational Challenges

- ❑ Training programs
- ❑ Creating standards
- ❑ Who manages the program?



Best Practices for Limiting Liability



Dog Walking



Risk Management

- Insurance
 - Not covered by general liability policies
 - Damage to drone
 - Damage to people or property
- FAA fines
- Invasion of Privacy



Company Policy

- Maintenance
- Safety Audits
- Preflight Testing
- Operations Checklist
- Training
- Incident Response Procedure
- Form Waivers/Consents



SOP

- General
 - Allowable reasons for operating UAS
- FAA compliance
 - State that all UAS flights must be in compliance with FAA regulations.
 - Refer to applicable waivers or exemptions



SOP

- ❑ **FAA compliance**
 - ❑ State that all UAS flights must be in compliance with FAA regulations.
 - ❑ Refer to applicable waivers or exemptions



SOP

- ❑ **Personnel**
 - ❑ Define roles (PIC, VO, Coordinator)
 - ❑ Establish who may fly UAS
 - ❑ Establish who may be involved in UAS operations
 - ❑ Policy for removing authorization
 - ❑ Provide authorized personnel with copy of SOP



SOP

- ❑ Training
 - ❑ Establish frequency and content of training for each role.
 - ❑ Initial
 - ❑ Ongoing

- ❑ Record Retention Policy
 - ❑ What?
 - ❑ How long?



SOP

- ❑ Training
 - ❑ Establish frequency and content of training for each role.
 - ❑ Initial
 - ❑ Ongoing



SOP

- ❑ Incident Response
 - ❑ Who does it?
 - ❑ What information is obtained?
 - ❑ What is sent to FAA?
 - ❑ What information is publicly disclosed?



SOP

- ❑ Privacy
 - ❑ Establish procedures in compliance with corporate privacy policy
- ❑ Intellectual Property
 - ❑ Who owns imagery captured by UAS?



SOP

- ❑ Pre-Flight Process
 - ❑ Checklists
 - ❑ Airspace
 - ❑ Ensure part 107 compliance or obtain waiver
 - ❑ Weather



SOP

- ❑ Documentation
 - ❑ log book
 - ❑ inspection
 - ❑ weather
 - ❑ operation



SOP

Facilities

- Where are UAS stored?
- Who may remove UAS from storage?

Audits

- Who?
- When?
- What?



SOP

Scheduling

- First come?
- Prior approval?

Maintenance

- What?
- When?
- Who?
- Records?



SOP

- ❑ Review Procedure
 - ❑ Establish procedure for meeting to discuss changes to laws and technology. Update policies accordingly.



Corporate Drone Policy

- ❑ What activity is allowed?
- ❑ Who is allowed to operate the UAS?
- ❑ Where is UAS operation allowed?
- ❑ How are non-participants notified?
- ❑ How do non-participants consent?



Non-Participants

- ❑ Inform
- ❑ Obtain consent
- ❑ Avoid



Participants

- ❑ Process to ensure FAA compliance
- ❑ Due diligence
- ❑ Contractual warranties and indemnity



Anticipated Developments

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Future Use

- ❑ Increase crop yields
- ❑ Verify insurance claims
- ❑ Assisting in future entertainment
- ❑ “Last mile services”
- ❑ 2016 \$2 billion global market
- ❑ 2020 \$127 billion global market





- ❑ Further definition of UAS safe airspace
- ❑ System for controlling movement through UAS safe airspace
- ❑ Move from education to enforcement
- ❑ Harmonization of federal and local regulations



Questions and Comments

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