

# **DELAWARE VALLEY INSURANCE TRUST RETREAT**

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## **Municipal Regulation of Unmanned Aircraft Systems (aka “Drones”)**



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# Basic Goals of Municipal Drone Regulation

- The three basic goals:
  - Promoting public safety
  - Protecting privacy
  - Keeping the peace

# The Issues

- How to achieve meaningful municipal regulation of drones in the face of FAA preemption
- Recognizing regulatory boundaries
- Need for FAA consultation and outreach

# What Is A Drone?

- Unmanned Aircraft System (“UAS”):
  - Unmanned aircraft and associated elements (including communication links and the components that control the unmanned aircraft) that are required for the pilot in command to operate safely and efficiently in the National Airspace System

*See* Section 331(9) of the FAA Modernization and Reform Act of 2012 (“FAA Modernization Act”)

# What Is A Drone? *(Cont.)*

- Different Types of Drones:
  - Civil UAS – “Commercial drones”
  - “Public aircraft” – Governmental drones
  - Model aircraft – “Recreational drones”

# Uses Of Drones

- Commercial uses include aerial photography, agriculture, Internet access, newsgathering, product delivery, R & D, sports photography and wildlife surveys
- Governmental uses include law enforcement, search and rescue, highway monitoring, zoning planning, building and bridge inspections and disaster relief

## Uses Of Drones (*Cont.*)

- Recreational uses include photography, racing, and stunt flying
- Special features - GPS, “Geo-fencing”, thermal imaging and high-definition cameras with remote control via i-Pads and laptops

# The FAA Regulatory Regime

- Two principal federal statutes:
  - Federal Aviation Act, 49 U.S.C. §§40101, *et seq.*
  - FAA Modernization and Reform Act of 2012, PL. 112-95, 126 Stat. 11
- The FAA Reauthorization Act of 2016 (Senate Bill No. 2658)
- FAA Proposed Rules for Small Commercial Drones  
*See* 80 Fed. Reg. 9544 to 9590 (Feb. 23, 2015) which will be finalized this month



# Federal Preemption

- It has been long recognized that federal law preempts the entire field of aviation under which any state or local regulation is prohibited even if it “complements or is parallel to federal standards”
- This so-called “field preemption” is necessary to avoid “fractionalized” control of the National Airspace System (“NAS”) and is based on the need for the FAA to assure safe and efficient management of air traffic in the NAS

# Federal Preemption

- State or local requirements for registration, training or equipment maintenance are completely preempted by federal law and are therefore forbidden
- All that notwithstanding, there is still some room for municipal regulation of drones operating within their jurisdictions, especially the use of recreational drones on or above public property, utilities and other municipal facilities

# Federal Preemption (*Cont.*)

- State and local criminal laws still apply to commercial and recreational drone owners and operators

# Commercial Drones

- A “commercial drone” is broadly defined as a UAS operated for “non-hobby or non-recreational” purposes, and is distinct from “public aircraft” which are drones operated by a governmental entity

# Commercial Drones (*Cont.*)

- When the FAA proposed regulations are finalized in June 2016, they will allow small commercial drones (weighing less than 55 lbs.) to operate without airworthiness certificates but will still be subject to several operational limitations, including daylight-only operations, confined areas of flight and visual “line-of-sight” control, as well as a 500 foot altitude limit and maximum air speed of 100 miles per hour (87 knots)

*See* 80 Fed. Reg. at 9546 (Feb. 23, 2015)

# Commercial Drones (*Cont.*)

- These rules will also require commercial drone operators to receive training, meet certain maintenance requirements and have pre-flight inspections
- Commercial drones weighing more than 55 lbs. – which are not covered by the proposed rules – will require a “Section 333 Exemption” before they can be flown. This exemption process requires the submission of detailed design and technical information about the drone

## Commercial Drones (*Cont.*)

- While the regulation of commercial drones is greatly circumscribed by the FAA, the agency is open to consultation and collaboration with state and local governments on issues of common concern

# Recreational Drones

- A “recreational drone” (aka “model aircraft”) is one that is flown solely for “hobby or recreational use”
- To be exempt from federal regulation under the FAA Modernization Act, a recreational drone must:
  - Be operated in accordance with a *community-based set of safety guidelines* and within the programming of a *nationwide community-based organization*;
  - Weigh less than 55 lbs. unless otherwise certified for operation by a community-based organization;



# Recreational Drones

- Be operated in a manner that does not interfere with, and gives away to, any manned aircraft;
- When flying within 5 miles of an airport, the drone operator must provide the airport air traffic safety control tower prior notice of the flight and, if flying from a permanent location within 5 miles of an airport, must establish a “mutually agreed upon operating procedure” with the airport operator and traffic control tower;

# Recreational Drones (*Cont.*)

- Be flown within a “visual line-of-sight” of the person operating the aircraft (no night time operations); and
- The proposed FAA rules note that “model aircraft” operators may not endanger the safety of the NAS and fall within the agency’s enforcement authority

See Section 336, FAA Modernization Act

# Recreational Drones (*Cont.*)

- When passed, the FAA Reauthorization Act of 2016 will revise these requirements so that:
  - The drone may not be flown “beyond visual line-of-sight from persons co-located with the operator or in direct communication with the operator”;
  - The drone may not be flown above an altitude of 400 feet; and
  - The operator must pass an “aeronautical knowledge and safety test” administered by the FAA

# Recreational Drones *(Cont.)*

- The 400 ft. altitude limit and the visual line-of-sight rule are found in previously issued FAA Guidance. See FAA Advisory Circular AC No. 91-57A (9/2/15)

# Community-Based Safety Standards and Programs

- The Academy of Model Aeronautics “(AMA)”, a well-established model aircraft hobbyist association, is a national community-based organization or “CBO”. The AMA has addressed such issues as noise abatement and promoted safety guidelines for model aircraft operators

# Community-Based Safety Standards and Programs *(Cont.)*

- In January 2014 the AMA prepared a National Model Aircraft Safety Code which :
  - Prohibits certain flying features like metal blade propellers;
  - Prohibits model aircraft from carrying pyrotechnic devices that explode or burn or any device which has a projectile or drops any object that creates a hazard to persons or property;

# Community-Based Safety Standards and Programs *(Cont.)*

- Imposes a maximum altitude of 400 feet and a requirement that any drone operator notify an airport if they are flying within 3 miles of it; and
- Prohibits model aircraft from flying closer than 50 feet from any above-ground electric utility lines

See [www.modelaircraft.org](http://www.modelaircraft.org)

# Community-Based Safety Standards and Programs *(Cont.)*

- According to the local FAA representative, local AMA affiliated community-based organizations are also encouraged to adopt safety guidelines for the operation of recreational drones
- Municipalities also may promote a “community-based set of safety guidelines” for local model aircraft clubs, but it is more likely that state-wide safety guidelines will be adopted



# Potential Areas of Municipal Regulation of Commercial and Recreational Drones

- The December 17, 2015 FAA Fact Sheet entitled “State and Local Regulation of Unmanned Aircraft Systems” gives examples of when states and municipalities should consult with the FAA before adopting drone-related statutes or ordinances and also identifies those areas where such laws would be preempted and therefore invalid
- FAA consultation is recommended for any state or local restrictions on flight altitude, flight paths, operational bans or any regulation of the “navigable air space”

# Potential Areas of Municipal Regulation of Commercial and Recreational Drones (*Cont.*)

- Mandating equipment or training for drone operators such as “Geo-fencing” would likely be preempted
- The exercise of state and local police power still permitted, most notably for land use, zoning, privacy, trespass and general law enforcement

# Potential Areas of Municipal Regulation of Commercial and Recreational Drones

## *(Cont.)*

- The FAA cautions states and municipalities about totally banning drones within city limits, within the airspace of a municipality or within the proximity of local landmarks, as all such restrictions will be strictly scrutinized by the courts
- Regulating drone use on public property:
  - Limitations or bans on take-offs and landings on public property; and

# Potential Areas of Municipal Regulation of Commercial and Recreational Drones (Cont.)

- Declaring various parks and other public spaces to be “No Drone Zones”



# Potential Areas of Municipal Regulation of Commercial and Recreational Drones (*Cont.*)

- While state and local regulation of commercial drones may be somewhat limited, a municipality could, in consultation with the FAA, require that commercial drone owners and operators notify the municipality of their intent to operate their aircraft in their jurisdictions
- Jurisdiction-wide restrictions on drone operations, both commercial and recreational, might include a blanket ban on night-time drone operations consistent with the FAA “line-of-sight” requirement

# Potential Areas of Municipal Regulation of Commercial and Recreational Drones *(Cont.)*

- Municipalities may include insurance and indemnification clauses in contracts with commercial drone operators

# Exercise of the Municipal Police Power

- As noted, the FAA recognizes the authority of a municipality to enforce state laws and local ordinances as to commercial and recreational drone operators. Examples include:
  - Flying a camera drone within certain feet of a residence as an invasion of privacy;
  - Having a drone hover noisily above or near private property for a long period of time, which would be a “nuisance”;

# Exercise of the Municipal Police Power (*Cont.*)

- Recklessly operating a drone so that it damages property or injures persons; and
  - Otherwise operating drones in such a way as to present a real risk of property damage or personal injury
- Municipalities should report any such incidents to the FAA so that the agency can also take appropriate enforcement action



# Pending Pennsylvania Legislation

- The General Assembly, like many state legislatures, has a number of drone-related bills and at least one resolution pending:
  - Allowing drone surveillance by investigators involving the commission of any offenses listed in the Pennsylvania Wiretap Act (H.B. No. 409);
  - Limiting use of drones below 3,000 feet above and within 3 miles of a sports stadium while a sporting or public event is taking place, with certain exceptions for law enforcement agencies and broadcasters (H.B. No. 1684);

# Pending Pennsylvania Legislation (*Cont.*)

- Prohibiting the use of a drone in any way that interferes with lawful fishing or boating (H.B. No. 1896);
- A resolution urging the FAA to adopt regulations requiring commercial drones to have code numbers, electronic kill frequencies and requiring the registration of a drone's inventors for background check purposes (House Resolution No. 295); and

# Pending Pennsylvania Legislation

## *(Cont.)*

- Limiting the use of a weaponized drone by state or local agencies or a member of the public, with exceptions for the Pennsylvania National Guard in certain situations (S.B. No. 971)