

# DRONATOMY - 101

Everything You as a Personal Injury Lawyer Need to Know about Drone Law, Drone Liability, and “Dronification” on Planet Earth



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# Drone / Unmanned Aerial Vehicle (UAV) / Quadrocopters



**Drone Industry**  
**\$6b in 2017 (3 Mil Devices Manuf.)**  
**\$11.2b in 2020 (est.)**  
**-Gizmodo**

## U.S. CIVILIAN DRONES AT A GLANCE\*

Hobbyist Users	836,796
Non-Hobbyist Drones	106,739
Certified Remote Pilots	69,166
Part 107 Waivers Granted	1,448
UASIPP Applicants	2,833

\*Based on the latest available information as of publication.

**Center for Drone at Bard College.**  
**\*Based on 2017 Registration**



# Drone Incidents/Accidents

INDY/TECH

## TGI FRIDAY DRONE CRASHES INTO WOMAN'S FACE AND CUTS IT OPEN IN RESTAURANT

### Is Being Investigated

By **Alan Levin**

February 15, 2018, 7:00 PM EST *Updated on* February 16, 2018, 3:26 PM EST

● LIVE ON BLOOMBERG

[WatchLiveTV >](#)

[ListenToLiveRadio >](#)



Photographer: Luke Sharrett/Bloomberg





UA17A-12 5924 front  
800 x 600 / 1000 fps / 1000 us  
Frame -4 / -0.004 s

## Comparison of Steel and Wood with Phantom 3

### UAS



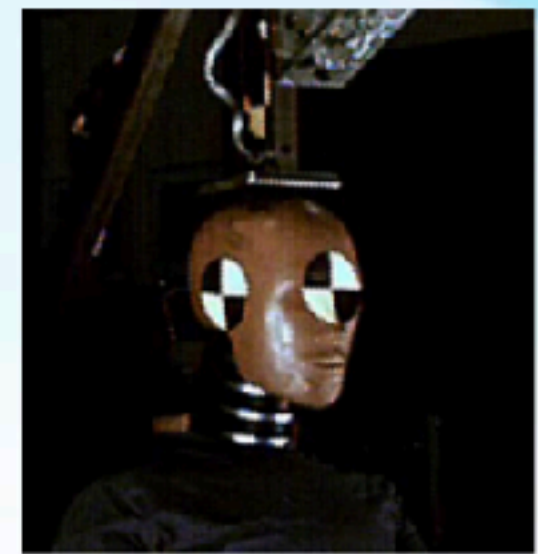
*Test Weight: 2.69 lbs.  
 Impact Velocity: 49-50 fps  
 Impact Energy: 100-103 ft-lbs.*

### Wood



*Test Weight: 2.69 lbs.  
 Impact Velocity: 52-54 fps  
 Impact Energy: 116-120 ft-lbs.*

### Steel



*Test Weight: 2.7 lbs.  
 Impact Velocity: 52-53 fps  
 Impact Energy: 114-121 ft-lbs.*

#### Motor Vehicle Standards

- Prob. of neck injury: 11-13%
- Prob. of head injury: 0.01-0.03%

#### Range Commanders Council Standards

- Probability of fatality from...
  - Head impact: 98-99%
  - Chest impact: 98-99%
  - Body/limb impact: 54-57%

#### Motor Vehicle Standards

- Prob. of neck injury: 63-69%
- Prob. of head injury: 99-100%

#### Range Commanders Council Standards

- Probability of fatality from...
  - Head impact: 99-100%
  - Chest impact: 99-100%
  - Body/limb impact: 67-70%

#### Motor Vehicle Standards

- Prob. of neck injury: 61-72%
- Prob. of head injury: 99-100%

#### Range Commanders Council Standards

- Probability of fatality from...
  - Head impact: 99-100%
  - Chest impact: 99-100%
  - Body/limb impact: 65-71%



# Drone Incidents

Location	Category	Year	Status*	Source
Pennsylvania	Close Encounter	2016	Ongoing	<a href="#">Link</a>
California	Close Encounter	2017	Ongoing	<a href="#">Link</a>
Ohio	Close Encounter	2014	Dismissed	<a href="#">Link</a>
North Dakota	Close Encounter	2016	Ongoing	<a href="#">Link</a>
California	Close Encounter	2015	Guilty Plea	<a href="#">Link</a>
California	Close Encounter	2016	Dismissed	<a href="#">Link</a>
North Carolina	Close Encounter	2016	Ongoing	<a href="#">Link</a>
New York	Close Encounter	2014	Dismissed	<a href="#">Link</a>
Wyoming	Drone Use	2014	Conviction	<a href="#">Link</a>
North Dakota	Drone Use	2016	Ongoing	<a href="#">Link</a>
Illinois	Drone Use	2016	Settled	<a href="#">Link</a>
Wyoming	Drone Use	2017	Settled	<a href="#">Link</a>
Massachusetts	Injury/Crash	2016	Ongoing	<a href="#">Link</a>
California	Injury/Crash	2015	N/A	<a href="#">Link</a>
Washington	Injury/Crash	2015	Conviction	<a href="#">Link</a>
New York	Injury/Crash	2015	N/A	<a href="#">Link</a>
New York	Injury/Crash	2015	Dismissed	<a href="#">Link</a>
New York	Injury/Crash	2016	Guilty Plea	<a href="#">Link</a>
New York	Injury/Crash	2016	N/A	<a href="#">Link</a>
New York	Injury/Crash	2017	Ongoing	<a href="#">Link</a>
New York	Privacy	2015	Not Guilty	<a href="#">Link</a>
Wisconsin	Privacy	2015	Conviction	<a href="#">Link</a>
Utah	Privacy	2015	Ongoing	<a href="#">Link</a>
Georgia	Privacy	2015	N/A	<a href="#">Link</a>
New Jersey	Shoot Down	2014	Guilty Plea	<a href="#">Link</a>
Kentucky	Shoot Down	2015	Dismissed	<a href="#">Link</a>
California	Shoot Down	2014	Settled	<a href="#">Link</a>
Maryland	Smuggling	2015	Conviction	<a href="#">Link</a>
Georgia	Smuggling	2013	N/A	<a href="#">Link</a>
Georgia	Smuggling	2016	Ongoing	<a href="#">Link</a>

Status as of April 2017 and based on available information.

**Credit: Bard College**



# Personal Injury and Wrongful Death Cases Arising Out of Drone Operation

## United States v. Ashley

United States District Court for the Eastern District of California

March 15, 2018, Decided; March 15, 2018, Filed

Case No.: 5:17-po-00384 JLT

The government asserts that a woman complained about an incident that occurred on April 5, 2017, while she was a visitor at Death Valley National Park. (Doc. 1-2) She reported that she asked another visitor, later identified as Richard Ashley, not to fly his drone. Id. In response, he flew the drone "at her" and then landed it and picked up a camera and took pictures of the woman, her family and her vehicle while stating that he "would find out where they lived." Id. When interviewed about the incident, the defendant admitted that he "was involved in a verbal altercation" though he said it was with a man and that "the boy who looked to be '12 years old' wanted to fight." Id. Based upon this statement of

## Quiroga v. United States

United States District Court for the Eastern District of California

January 2, 2018, Decided; January 2, 2018, Filed

Case No. 1:17-cv-01301-LJO-EPG-HC

### BACKGROUND

On September 27, 2017, Petitioner filed a petition for writ of habeas corpus, which appears to challenge his 2016 Kern County Superior Court conviction. (ECF No. 1 at 1).<sup>2</sup> However, Petitioner circled "No" in response to the question of whether he was challenging the validity of his conviction or sentence as imposed. (Id. at 4). In the petition, Petitioner raises the following claims: (1) violations of the *Fourth Amendment* for reading Petitioner's brain with electric signals from satellites and drones; (2) violations of the *Fifth Amendment* for [\*2] denying Petitioner the right to remain silent and never reading Petitioner his rights; (3) violations of the *Sixth Amendment* for denying Petitioner his right to be informed of the nature of charges against him and failing to take Petitioner before a judge; (4) violations of the *Eighth Amendment* for being made to suffer from electrocution from satellite and drone signals; and (5) violations of equal protection. (ECF No. 1 at 6-9).



# Personal Injury and Wrongful Death Cases Arising Out of Drone Operation

## [Cordova v. Coldiron](#)

Court of Appeals of Kansas

December 1, 2017, Opinion Filed

No. 117,471

from stalking order under [K.S.A. 60-31a01 et seq.](#), alleging that Michelle Coldiron was stalking her. Cordova's petition was temporarily granted. After the case went to trial, Cordova was granted a final protection from stalking order. The order was based on three alleged separate incidents of stalking, one occurring on February 7, 2017, and two occurring on February 9, 2017. Coldiron appeals the final order, arguing (1) that insufficient evidence existed to support the trial court's ruling that the February 7, 2017 incident constituted an act of stalking; (2) that the trial court erred as a matter of law in ruling that the February 9, 2017 incidents constituted two separate acts of stalking; and (3) that the trial court erred in admitting evidence relating to Michelle Coldiron's husband's conduct.

The [\*2] ultimate question is whether the trial court properly concluded that Coldiron had committed two or more separate acts of stalking directed at Cordova. We conclude that the trial court properly determined that two separate acts of stalking directed at Cordova occurred on February 9, 2017. Accordingly, we affirm.

## [Flores v. Texas](#)

United States District Court for the Southern District of Texas, Laredo Division

March 31, 2017, Decided; March 31, 2017, Filed, Entered

CIVIL ACTION NO. 5:16-CV-130

The Act generally criminalizes the use of a **drone** to capture images of another person on their private property or the property [\*2] itself. See [Tex. Gov't Code § 423.003](#). It also provides a property owner with a civil right of action for injunctive or monetary relief against anyone who uses a **drone** to take these types of images. See *id.* at [§ 423.006](#). As restrictive as this articulation may sound, the Act does except a wide-range of **drone** imaging from its applicability. See *id.* at [§ 423.002](#). Law enforcement authorities, for example, are granted an exception to conduct official activities like the pursuit of suspect felons and the documenting of felony crime scenes. See *id.* at [§ 423.002\(a\)\(8\)\(B\)](#). Another exception—noteworthy because its validity is now being called into question—is what can be referred to as the "Border exception," which makes it lawful to capture an image using a **drone** "of real property or a person on real property that is within 25 miles of the United States border . . . ." *Id.* at [§ 423.002\(a\)\(14\)](#). The effect of the Border exception is to preclude criminal or civil liability against any person, whether a law enforcement official or not, who uses a **drone** to capture images of another within the designated 25-mile zone.<sup>1</sup>



# **Drone Incident Categories**

**PRIVACY**

**CRASHES / PERSONAL INJURY**

**CLOSE ENCOUNTERS WITH MANNED AIRCRAFT**

**SHOOT DOWNS**

**SMUGGLING**





# Drone Insurance - Yes, It exists...

**verifly**

[How it Works](#)

[Press](#)

[FAQ](#)

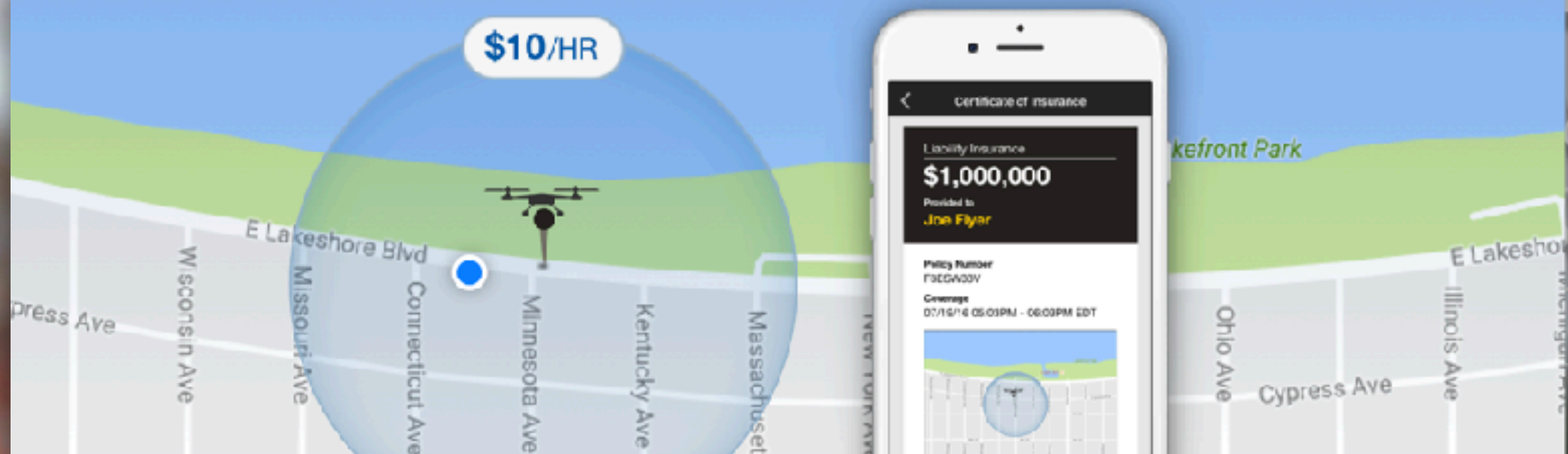
[Contact](#)

Get the App  

## How it Works

On-demand drone insurance for  
recreational and commercial flights

\$10/HR



Up to \$10,000,000 of drone liability insurance.  
Prices start at \$10 an hour. Fly any drone up to 35lbs.

# Homeowner's Insurance - Drone Coverage?

Most standard H.O. policies exclude liability coverage for aircraft but may or will include coverage for model or hobby aircraft.

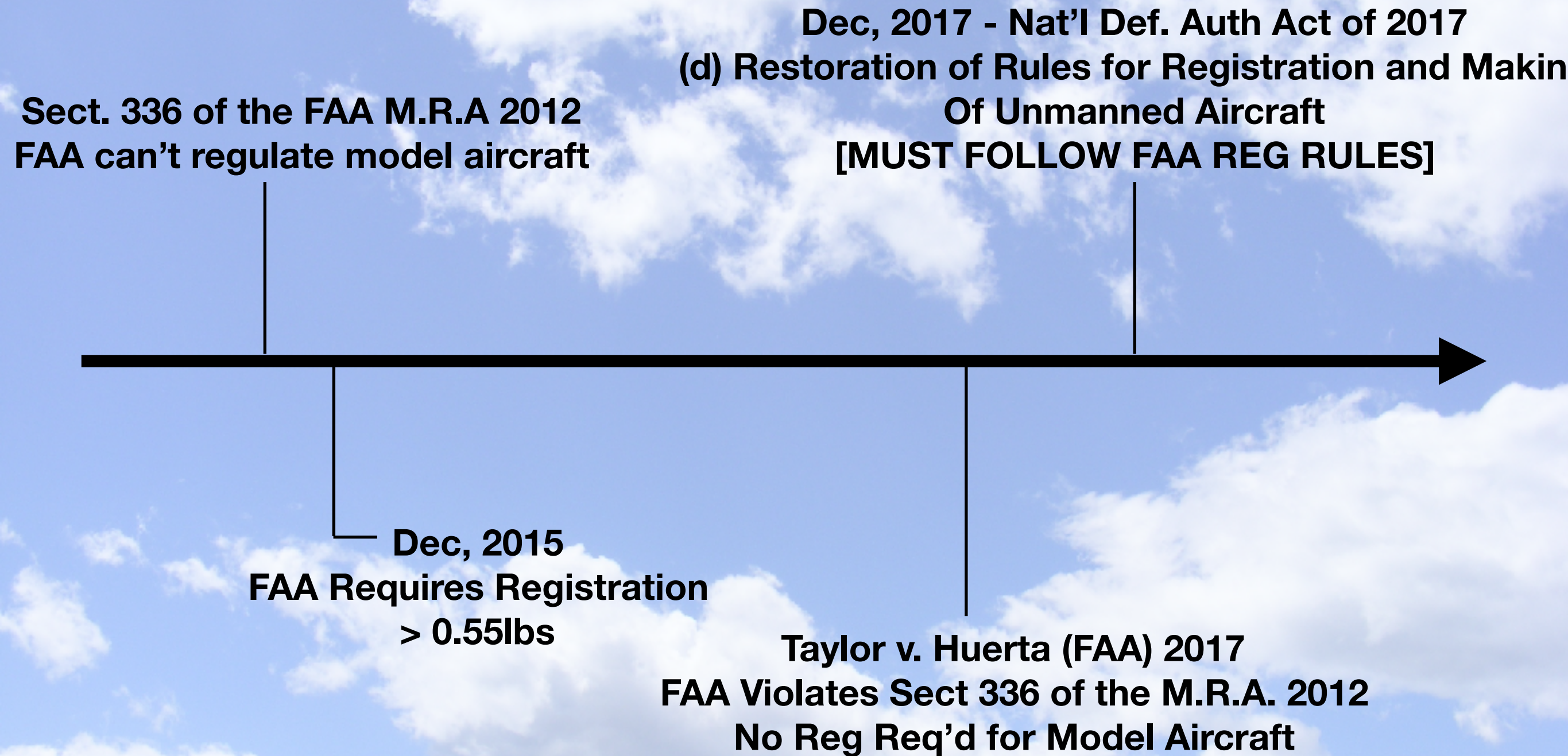
Obviously: Must look at policy language. Consider ambiguity / contra proferentem.





# **Federal Statutes and Regulations Regarding Drone Law**

## **To Register or Not Register?**





# FAA REGISTRATION/LICENSURE REQUIREMENTS

## Section 336

*Strictly for the hobbyist*

### SEC. 336. SPECIAL RULE FOR MODEL AIRCRAFT.

(a) IN GENERAL.—Notwithstanding any other provision of law relating to the incorporation of unmanned aircraft systems into Federal Aviation Administration plans and policies, including this subtitle, the Administrator of the Federal Aviation Administration may not promulgate any rule or regulation regarding a model aircraft, or an aircraft being developed as a model aircraft, if—

(1) the aircraft is flown strictly for hobby or recreational use;

(2) the aircraft is operated in accordance with a community-based set of safety guidelines and within the programming of a nationwide community-based organization;

(3) the aircraft is limited to not more than 55 pounds unless otherwise certified through a design, construction, inspection, flight test, and operational safety program administered by a community-based organization;

(4) the aircraft is operated in a manner that does not interfere with and gives way to any manned aircraft; and

(5) when flown within 5 miles of an airport, the operator of the aircraft provides the airport operator and the airport air traffic control tower (when an air traffic facility is located at the airport) with prior notice of the operation (model aircraft operators flying from a permanent location within 5 miles of an airport should establish a mutually-agreed upon operating procedure with the airport operator and the airport air traffic control tower (when an air traffic facility is located at the airport)).

(b) STATUTORY CONSTRUCTION.—Nothing in this section shall be construed to limit the authority of the Administrator to pursue enforcement action against persons operating model aircraft who endanger the safety of the national airspace system.

(c) MODEL AIRCRAFT DEFINED.—In this section, the term “model aircraft” means an unmanned aircraft that is—

(1) capable of sustained flight in the atmosphere;

**Must register if over .55lbs  
(No Remote Airman Cert. /  
Airworthiness Cert. Needed).**

## Part 107

*Any related commercial purpose*

### § 107.1 Applicability.

(a) Except as provided in paragraph (b) of this section, this part applies to the registration, airman certification, and operation of civil small unmanned aircraft systems within the United States.

(b) This part does not apply to the following:

(1) Air carrier operations;

(2) Any aircraft subject to the provisions of part 101 of this chapter; or

(3) Any operation that a remote pilot in command elects to conduct pursuant to an exemption issued under section 333 of Public Law 112-95, unless otherwise specified in the exemption.

***Need to get a Remote Airman Cert. /  
Airworthiness Cert  
Unless Exemption Applies***

## Section 333 Exemption to Part 107

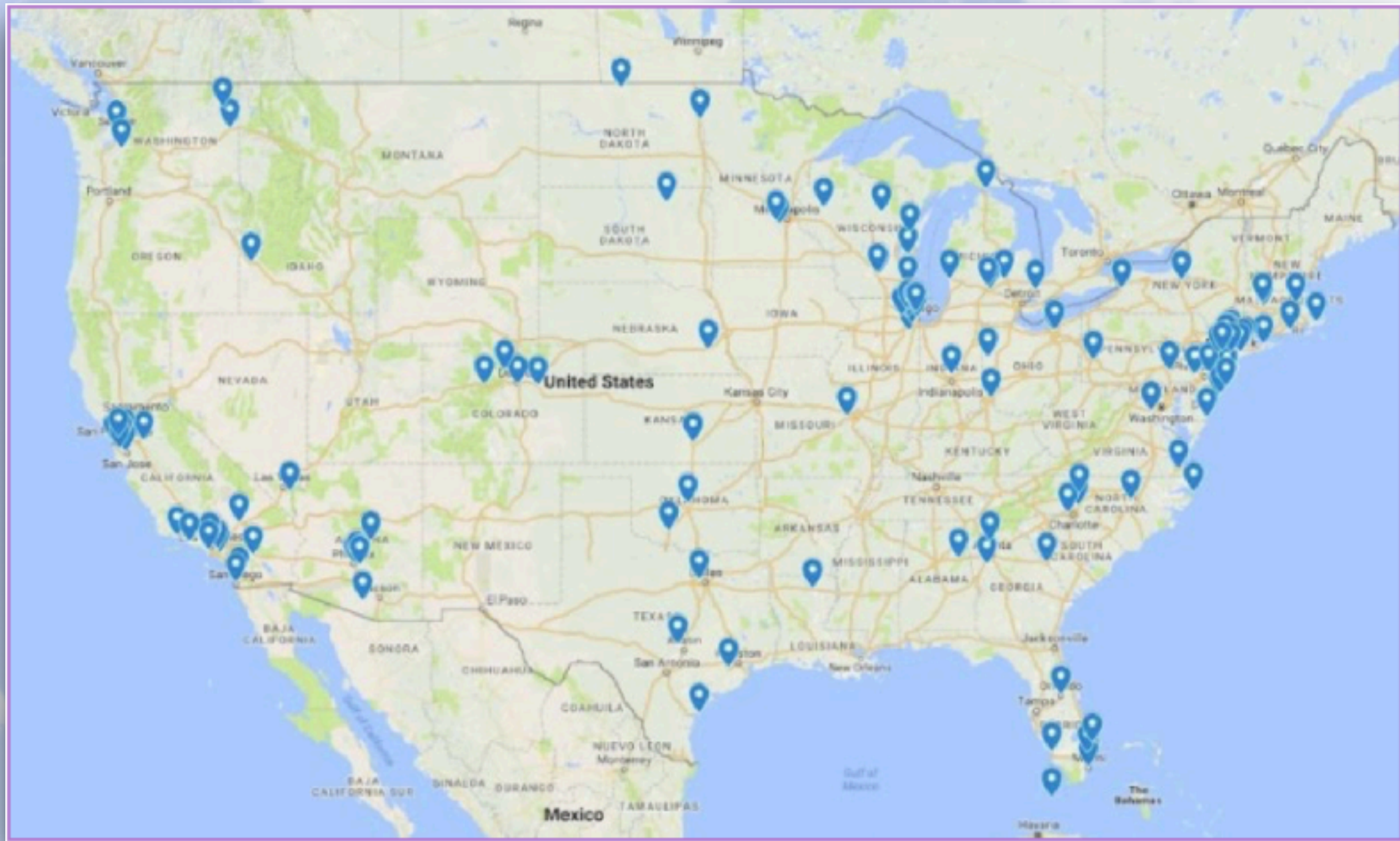
By law, any aircraft operation in the national airspace requires a certificated and registered aircraft, a licensed pilot, and operational approval. [Section 333 of the FAA Modernization and Reform Act of 2012 \(FMRA\)](#) (PDF) grants the Secretary of Transportation the authority to determine whether an airworthiness certificate is required for a UAS to operate safely in the National Airspace System (NAS).

This authority is being leveraged to grant case-by-case authorization for certain unmanned aircraft to perform commercial operations prior to the finalization of the Small UAS Rule, which will be the primary method for authorizing small UAS operations once it is complete.

**Case-by-case**



# State Statutes and Regulations Affecting Drone Law



Source: Center for the Study of Drone at Bard College, 2017



# **State Statutes and Regulations Affecting Drone Law**

**FAA has exclusive sovereignty of airspace in the United States**

**Therefore, States who attempt to regulate aviation or flight, are pre-empted.**

**States may regulate conduct/non-aviation aspects of drone use.**



# State Statutes and Regulations Affecting Drone Law

State	Statute	Bill	Restricts1	Restricts2	Promotes?	Date Enacted	Class of Offense
Nevada		AB 507			Yes	6/10/13	
New Hampshire	<a href="#">N.H. Rev. Stat. § 207:57</a>	<a href="#">SB 222</a>		Interfering w/ Hunters, Harassment		January 1, 2016	Misdemeanor
New Mexico		<a href="#">NM HM81</a>	Private	Hunting		3/6/15	
							Evidence obtained in violation of the statute is inadmissible in any proceedings. People who are the subject of surveillance or are photographed in violation of the statute have a civil cause of action against the actor and may recover \$5,000 per photograph or video in addition to reasonable costs and attorneys' fees in the absence of actual damages.
North Carolina	<a href="#">N.C.G.S.A. § 15A-300.1</a>	<a href="#">SB 744</a>	Public	Warrantless Surveillance		October 1, 2014	
North Carolina	<a href="#">N.C.G.S.A. § 15A-300.2</a>	<a href="#">SB 744</a>		Invading Privacy		October 1, 2014	Misdemeanor
North Carolina	<a href="#">N.C.G.S.A. § 113-295</a>	<a href="#">SB 744</a>		Interfering w/ Hunters		December 1, 2014	Class 1 Misdemeanor
North Carolina	<a href="#">N.C.G.S.A. § 14-280.3</a>	<a href="#">HB 1099</a>		Interfering w/ Aviation		December 1, 2014	Class H Felony
							Class E Felony (possession or use of weaponized unmanned aircraft system) Class 1 Misdemeanor (hunting using an unmanned aircraft system)
North Carolina	<a href="#">N.C.G.S.A. § 14-401.24</a>	<a href="#">SB 744</a>	Private	Hunting, Weaponization		December 1, 2014	
North Carolina	<a href="#">N.C.G.S.A. § 14-7.45</a>	<a href="#">SB 744</a>				December 1, 2014	N/A
North Carolina	<a href="#">N.C.G.S.A. § 63-95</a>	<a href="#">SB 446</a>	Public			August 25, 2015	N/A
North Carolina	<a href="#">N.C.G.S.A. § 63-96</a>	<a href="#">SB 446</a>				August 25, 2015	Class 1 Misdemeanor
North Dakota		<a href="#">executive order</a>					
North Dakota	Chapter 29-29.4	<a href="#">HB 1328</a>	Public/Law Enforcement	Warrantless Surveillance, Invading Privacy, Weaponization		April 16, 2015	
Ohio	Section 122.98 of the Revised Code	<a href="#">HB 292</a>			Yes	6/17/14	
Oklahoma	<a href="#">§3-322</a>	<a href="#">HB 2599</a>	Private	Surveillance of critical infrastructure		5/18/16	
Oregon	<a href="#">O.R.S. § 837.320</a>	<a href="#">HB 2710</a>			Yes	July 29, 2013	Information obtained in violation of the statute is inadmissible.
Oregon	<a href="#">O.R.S. § 837.330</a>	<a href="#">HB 2710</a>	Law Enforcement			July 29, 2013	N/A
Oregon	<a href="#">O.R.S. § 837.335</a>	<a href="#">HB 2710</a>			Yes	July 29, 2013	N/A
Oregon	<a href="#">O.R.S. § 837.340</a>	<a href="#">HB 2710</a>	Law Enforcement			July 29, 2013	N/A
Oregon	<a href="#">O.R.S. § 837.345</a>	<a href="#">HB 2710</a>	Law Enforcement	Warrantless Surveillance		July 29, 2013	Information obtained in violation of the statute is inadmissible.
Oregon	<a href="#">O.R.S. § 837.375</a>	<a href="#">HB 2710</a>		Interference w/ UAS	Yes	July 29, 2013	Civil liability to the device's owner (at least \$5,000 in addition to reasonable attorney fees.

# Florida State Drone Law

## The 2017 Florida Statutes

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### Title XLVII

#### CRIMINAL PROCEDURE AND CORRECTIONS

### Chapter 934

#### SECURITY OF COMMUNICATIONS; SURVEILLANCE

### [View Entire Chapter](#)

#### **934.50 Searches and seizure using a drone.—**

(1) **SHORT TITLE.**—This act may be cited as the “Freedom from Unwarranted Surveillance Act.”

(2) **DEFINITIONS.**—As used in this act, the term:

(a) “Drone” means a powered aerial vehicle that:

(3) **PROHIBITED USE OF DRONES.**—

(a) A law enforcement agency may not use a drone to gather evidence or other information.

(b) A person, a state agency, or a political subdivision as defined in s. 11.45 may not use a drone equipped with an imaging device to record an image of privately owned real property or of the owner, tenant, occupant, invitee, or licensee of such property with the intent to conduct surveillance on the individual or property captured in the image in violation of such person’s reasonable expectation of privacy without his or her written consent. For purposes of this section, a person is presumed to have a reasonable expectation of privacy on his or her privately owned real property if he or she is not observable by persons located at ground level in a place where they have a legal right to be, regardless of whether he or she is observable from the air with the use of a drone.

(4) **EXCEPTIONS.**—This section does not prohibit the use of a drone:

the components used to control the drone which are required for the pilot in command to operate the drone safely and efficiently.