

HOUSE OF REPRESENTATIVES STAFF ANALYSIS

BILL #: HB 433 Use of Drones by Government Agencies

SPONSOR(S): Andrade and others

TIED BILLS: **IDEN./SIM. BILLS:** SB 518

REFERENCE	ACTION	ANALYST	STAFF DIRECTOR or BUDGET/POLICY CHIEF
1) Pandemics & Public Emergencies Committee	18 Y, 0 N	Landry	Dearden
2) Judiciary Committee			

SUMMARY ANALYSIS

A drone is a powered, aerial vehicle that does not carry a human operator, uses aerodynamic forces to provide vehicle lift, can fly autonomously or be piloted remotely, can be expendable or recoverable, and can carry a lethal or nonlethal payload. Florida law generally restricts the use of a drone to conduct surveillance, but makes exceptions for specified activities including aerial mapping, cargo delivery, managing and eradicating invasive exotic plants or animals on public lands, and suppressing and mitigating wildfire threats.

Drones promote efficiency in responding to natural disasters because they can quickly and safely assess damage to buildings, infrastructure, and land. Flood waters, obstructed roadways or access points, or generally unsafe conditions caused by disasters often impede damage assessment teams from efficiently completing assessments. Using drones allows for quicker completion of damage assessments while also reducing the exposure of assessment team members to hazardous environments. Damage assessments are needed to support the Governor's request for a presidential disaster declaration, which authorizes federal disaster assistance to affected communities.

HB 433 creates an additional exception to the general prohibition on drone surveillance to allow a state agency or political subdivision to use a drone to assess damage resulting from a hurricane, flood, wildfire, or other natural disaster.

The bill may have a positive fiscal impact on state and local governments by increasing efficiency and reducing costs traditionally associated with damage assessments through the authorized use of drones.

The bill provides an effective date of July 1, 2021.

FULL ANALYSIS

I. SUBSTANTIVE ANALYSIS

A. EFFECT OF PROPOSED CHANGES:

Background

Drones

Florida Law

Section 934.50, F.S., defines a drone as a powered, aerial vehicle that:

- Does not carry a human operator;
- Uses aerodynamic forces to provide vehicle lift;
- Can fly autonomously or be piloted remotely;
- Can be expendable or recoverable; and
- Can carry a lethal or nonlethal payload.¹

The entire system of a drone and its associated elements, including communication links and components used to control the drone, is called an unmanned aircraft system.² Drones vary in size and weight and may be controlled manually or by an autopilot system using a data link that connects the drone's pilot to the drone. A drone may be equipped with infrared cameras³ or "LADAR" (laser radar).⁴

Florida law restricts the use of drones by individuals and government entities to conduct surveillance. Under s. 934.50, F.S., a real property owner is presumed to have a reasonable expectation of privacy on his or her privately owned real property if he or she cannot be seen by persons at ground level who are in a place they have a legal right to be.⁵ Thus, law enforcement may not use a drone to gather evidence or other information, with certain exceptions. When law enforcement has a reasonable suspicion that swift action is needed for one of the following reasons, drone use is permitted to:

- Prevent imminent danger to life or serious damage to property;
- Forestall the imminent escape of a suspect or the destruction of evidence; or
- Achieve purposes including facilitating the search for a missing person.⁶

Other exceptions authorizing drone use include:

- Countering terrorist attacks;
- Effecting search warrants authorized by a judge;
- Lawful business activities licensed by the state, with certain exceptions;
- Assessing property for ad valorem taxation purposes;
- Capturing images of utilities for specified purposes;
- Aerial mapping;
- Cargo delivery;
- Capturing images necessary for drone navigation;
- Routing, siting, installation, maintenance, or inspection of communications service facilities; and

¹ S. 934.50(2)(a), F.S.

² S. 330.41(2)(c), F.S.

³ Infrared cameras can see objects through walls based on the relative levels of heat produced by the objects. Congressional Research Service, *Drones in Domestic Surveillance Operations: Fourth Amendment Implications and Congressional Response*, (Apr. 3, 2013) www.fas.org/sgp/crs/natsec/R42701.pdf (last visited Feb. 12, 2021).

⁴ The research and development laboratory at the Massachusetts Institute of Technology has developed airborne LADAR systems that generate detailed 3D imagery of terrain and structures, including those beneath dense foliage. The lab reports that a micro-LADAR may be used under both clear and heavy foliage conditions for surveillance and reconnaissance missions as well as for humanitarian assistance and disaster relief operations. Massachusetts Institute of Technology, *Micro-ladar*, <https://www.ll.mit.edu/r-d/projects/micro-ladar> (last visited Feb. 12, 2021).

⁵ S. 934.50(3)(a) and (4), F.S.

⁶ S. 934.50(4)(c), F.S.

- Use by non-law enforcement employees of the Fish and Wildlife Conservation Commission or the Florida Forest Service for managing invasive exotic plants or animals, and suppressing and mitigating wildfires.⁷

Section 934.50, F.S., further provides that evidence obtained or collected by a law enforcement agency using a drone is not admissible in a criminal prosecution in any court of law in the state, unless it is permitted under an exception.⁸

Federal Regulation

The Federal Aviation Administration (FAA) regulates use of navigable airspace.⁹ FAA has allowed drone use for essential public operations such as firefighting, disaster relief, search and rescue, law enforcement, border patrol, and scientific research since 1990.¹⁰ In February 2012, Congress passed the Federal Aviation Authority Modernizing and Reform Act (Act), which required FAA to safely open the nation's airspace to drones by September 2015. Based on authority granted by the Act, the FAA issued regulations on the operation and certification of small (less than 55 pounds at take-off) unmanned aircraft systems in June 2016.¹¹ The 2016 small drone regulations are still in effect and include airspace restrictions and a waiver mechanism allowing for deviations from drone operational restrictions upon application and authorization by the FAA.¹²

In 2017, the FAA launched the Unmanned Aircraft Systems Integration Pilot Program.¹³ One objective of this pilot program is to test and evaluate various models of state, local, and tribal government involvement to develop and enforce federal regulation of drone operations. Current pilot program participants are exploring package delivery, delivery of life-saving medical equipment, pipeline inspection, airport security, and border protection.¹⁴

On December 28, 2020, the FAA announced a new rule that provides for routinely flying small drones over people, over moving vehicles, and at night if users meet certain safety and pilot training criteria.¹⁵ The final rule will become effective 60 days after the final rule's publication date in the Federal Register.¹⁶

Public Safety Uses

Drones have proven useful to law enforcement and governmental entities. Similar to helicopters, drones provide a broad vantage point, but are cheaper, can fly lower, and don't require an onboard pilot.¹⁷ A study by the Center for the Study of the Drone at Bard College estimates that at least 910 state and local police, fire, emergency medical services, and other public safety agencies have

⁷ S. 934.50(4)(a)-(b), and (d)-(j), F.S.

⁸ S. 934.50(6), F.S.

⁹ 49 U.S.C. § 40103 (2019).

¹⁰ FAA, *Fact Sheet – Unmanned Aircraft Systems*, (Feb. 15, 2015), https://www.faa.gov/news/fact_sheets/news_story.cfm?newsId=18297 (last visited Feb. 12, 2021).

¹¹ 14 CFR Parts 21, 43, 61, 91, 101, 107, 119, 133, and 183, *Operation and Certification of Small Unmanned Aircraft Systems*, 81 FR 42064-01, June 28, 2016.

¹² *Id.*

¹³ Federal Aviation Administration, *UAS Integration Program, Program Overview* (Oct. 25, 2017), https://www.faa.gov/uas/programs_partnerships/integration_pilot_program/ (last visited Feb. 12, 2021).

¹⁴ Federal Aviation Administration, *Integration Pilot Program Lead Participants*, https://www.faa.gov/uas/programs_partnerships/integration_pilot_program/lead_participants/ (last visited Feb. 12, 2021).

¹⁵ For example, prior to conducting small drone operations at night, the drone must be equipped with operational anti-collision lights that can be seen for three statute miles and have a flash rate sufficient to avoid a collision. FAA Executive Summary, *Final Rule on Operation of Small Unmanned Aircraft Systems Over People*, (Dec. 28, 2020), https://www.faa.gov/news/media/attachments/OOP_Executive_Summary.pdf (last visited Feb. 12, 2021).

¹⁶ *Id.*

¹⁷ Aarian Marshall, *Above Devastated Houston, Armies of Drones Prove Their Worth* (Sep. 4, 2017) <https://www.wired.com/story/houston-recovery-drones/> (last visited Feb. 12, 2021).

acquired drones in recent years.¹⁸ Two thirds of the public safety agencies using drones are law enforcement agencies.¹⁹ Some available capabilities include searching for missing persons;²⁰ enhancing situational awareness in active shooter, hostage, or barricaded suspect incidents;²¹ and assisting with border patrol operations.²²

Drones also promote efficiency in responding to natural disasters because they can quickly assess damage to buildings and infrastructure.²³ During Hurricane Harvey in Houston in 2017, emergency management agencies used drones to monitor levees, predict flooding, estimate how long an area would be underwater, and create detailed maps.²⁴ Following Hurricane Michael in 2018, the University of Florida Institute of Food and Agricultural Sciences used drones to determine agricultural crop damage and yield reduction to provide a more accurate account of the damage caused by the storm.²⁵ Drones may also provide vital assistance to fire departments by using thermal cameras to find victims trapped in a fire, assess how a fire is spreading, or to make emergency supply deliveries.²⁶

Recent legislation authorized non-law enforcement employees of the Fish and Wildlife Conservation Commission or the Florida Forest Service to use drones for the purpose of managing and eradicating invasive exotic plants or animals on public lands, and suppressing and mitigating wildfire threats.²⁷ Other states similarly authorize drone use for emergency management related activities. Idaho authorizes law enforcement, fire departments, or other local or state government entities to use drones for the purpose of assessing damage due to natural disaster or fire.²⁸ South Dakota exempts emergency management workers within their scope of duties from the prohibition on using drones to photograph, record, or observe another person in a private place.²⁹

Disaster Damage Assessments

Congress passed the Robert T. Stafford Disaster Relief Act and Emergency Assistance Act (Stafford Act) for the purpose of alleviating the suffering and damage of survivors and communities resulting from disasters.³⁰ To access federal assistance under the Stafford Act, the Governor must request the President of the United States to issue a presidential disaster declaration.³¹ There are two types of presidential disaster declarations: an emergency declaration and a major disaster declaration.

¹⁸ Dan Gettinger, Center for the Study of the Drone at Bard College, *Public Safety Drones: An Update* (May 2018), <https://dronecenter.bard.edu/files/2018/05/CSD-Public-Safety-Drones-Update-1.pdf> (last visited Feb. 12, 2021).

¹⁹ *Id.*

²⁰ Associated Press, *Lost horse riders found with drone* (Jan. 26, 2019), <https://www.wctv.tv/content/news/Lost-horse-riders-found-with-drone-504913522.html> (last visited Feb. 12, 2021).

²¹ Los Angeles Police Department, *Small Unmanned Aerial System Pilot Program Deployment Guidelines and Procedures* (Oct. 13, 2017), http://www.lapdpolicecom.lacity.org/101717/BPC_17-0410.pdf (last visited Feb. 12, 2021).

²² David Bier and Matthew Feeney, *Drones on the Border: Efficacy and Privacy Implications*, Cato Institute (May 1, 2018), <https://www.cato.org/publications/immigration-research-policy-brief/drones-border-efficacy-privacy-implications> (last visited Feb. 12, 2021).

²³ Matthew Hutson, *Hurricanes Show Why Drones Are the Future of Disaster Relief* (Sep. 9, 2017), <https://www.nbcnews.com/mach/science/hurricanes-show-why-drones-are-future-disaster-relief-ncna799961> (last visited Feb. 12, 2021).

²⁴ *Id.*

²⁵ Beverly James, *Florida Panhandle: Drones Used to Assess Hurricane Michael Damage* (Oct. 30, 2018), <https://agfax.com/2018/10/30/florida-panhandle-drones-used-to-assess-hurricane-michael-damage/> (last visited Feb. 12, 2021).

²⁶ Zacc Dukowitz, *7 ways Fire Departments Use Drones in the Field* (Apr. 25, 2018), <https://uavcoach.com/drones-fire-departments/> (last visited Feb. 12, 2021).

²⁷ Chapter 20-131, Laws of Fla.

²⁸ Idaho Code Ann. s. 21-313 (2020)

²⁹ S.D. Codified Laws s. 22-21-1 (2020)

³⁰ 42 U.S.C. § 5121(b).

³¹ Federal Emergency Management Agency, *How a Disaster Gets Declared*, <https://www.fema.gov/disasters/how-declared> (last visited Feb. 12, 2021)

A Governor's request for an emergency declaration must be based upon a finding that the situation:

- Is of such severity and magnitude that effective response is beyond state and affected local government capabilities; and
- Requires supplementary federal emergency assistance to save lives and to protect property, public health and safety, or to lessen or avert the threat of a disaster.³²

A Governor's request for a major disaster declaration must be based upon a finding that:

- The situation is of such severity and magnitude that effective response is beyond state and affected local government capabilities; and
- Federal assistance is necessary to supplement the efforts and available resources of state, local governments, disaster relief organizations, and insurance compensation for disaster-related losses.³³

Federal Emergency Management Agency (FEMA) obtains and verifies information accompanying a Governor's request for a presidential disaster declaration through a process requiring:³⁴

- *Preassessment*: A local government collects preliminary damage assessment (PDA) information within its jurisdiction and submits the information to the state;³⁵
- *State Verification*: Damage assessment information provided by the local government is verified by the state to ensure that it "is complete and consistent with programmatic assessment criteria";³⁶
- *Joint PDA*: The Director of the State Emergency Management Agency³⁷ requests a joint PDA and state officials work jointly with FEMA officials on damage assessment field teams to validate the state's PDA information;³⁸
- *Recommendation to the Governor*: Once the Joint PDA is completed, the state's emergency managers review the validated information and make a recommendation to the Governor on whether a request for a presidential disaster declaration is necessary.³⁹

A Governor must submit a request for a presidential disaster declaration through the FEMA Regional Administrator.⁴⁰ Upon request, the President may declare that an emergency or major disaster exists in a state or a region of a state.⁴¹ Once the President signs a disaster declaration, FEMA may begin allocating disaster assistance funds to the state or local government.

The process for obtaining a presidential disaster declaration can vary from a few hours to several weeks. Damage assessments required to accompany the presidential disaster declaration request are dependent upon the capability of state and local jurisdictions to evaluate the affected area. Flood waters, obstructed roadways or access points, or generally unsafe conditions caused by the disaster often impede damage assessment teams from efficiently completing assessments. Drone use enables assessment team members to more quickly complete damage assessments while also reducing their exposure to hazardous environments.⁴² Expediting the completion of damage assessments may allow a Governor to more quickly request a presidential disaster declaration, thereby authorizing federal

³² *Id.*

³³ *Id.*

³⁴ 44 C.F.R. §§ 206.31-206.28

³⁵ 44 C.F.R. § 206.33(a)

³⁶ Federal Emergency Management Agency, *Preliminary Damage Assessment Guide* (May 1, 2020) https://www.fema.gov/sites/default/files/2020-07/fema_preliminary-disaster-assessment_guide.pdf (last visited Feb. 12, 2021).

³⁷ In Florida, this would be the Director of Emergency Management. S. 14.2016(1), F.S.

³⁸ 44 C.F.R. § 206.33(b), F.S.

³⁹ *Supra* note 24.

⁴⁰ 44 C.F.R. §§ 206.35(a) and 206.36(a)

⁴¹ 42 U.S.C. § 5191(a)

⁴² Matt Parnofiello, *Drones Increasingly Get Ahead of Disaster Damage* (Oct. 12, 2018), <https://statetechmagazine.com/article/2018/10/drones-increasingly-get-ahead-disaster-damage> (last visited Feb. 12, 2021).

disaster assistance to affected communities. Florida law currently does not authorize a state agency or political subdivision to use a drone for damage assessments.

Effect of Proposed Changes

HB 433 creates an additional exception to the general prohibition on drone surveillance to authorize a state agency or political subdivision to use a drone to assess damage resulting from a hurricane, flood, wildfire, or any other natural disaster.

The bill creates opportunities for state agencies and political subdivisions to improve efficiency by authorizing drone use to accomplish tasks personnel must currently perform manually. As with any surveillance activity, governmental actors are bound by Fourth Amendment protections. Though the bill allows the government to use drones, the manner of use must comport with constitutional privacy protections.

The bill provides an effective date of July 1, 2021.

B. SECTION DIRECTORY:

Section 1: Amends section 934.50, F.S., relating to searches and seizures using a drone.

Section 2: Reenacts section 330.41(4)(c), F.S., relating to unmanned aircraft systems.

Section 3: Provides an effective date of July 1, 2021.

II. FISCAL ANALYSIS & ECONOMIC IMPACT STATEMENT

A. FISCAL IMPACT ON STATE GOVERNMENT:

1. Revenues:

None.

2. Expenditures:

Drones have proven to be more efficient than traditional on-the-ground or manned aircraft efforts in several public safety operations. Authorizing drone use for more purposes may reduce costs for state agencies performing these operations, such as the Florida Division of Emergency Management.

B. FISCAL IMPACT ON LOCAL GOVERNMENTS:

1. Revenues:

None.

2. Expenditures:

Drones have proven to be more efficient than traditional on-the-ground or manned aircraft efforts in several public safety operations. Authorizing drone use for more purposes may reduce costs for local emergency management departments.

C. DIRECT ECONOMIC IMPACT ON PRIVATE SECTOR:

None.

D. FISCAL COMMENTS:

None.

III. COMMENTS

A. CONSTITUTIONAL ISSUES:

1. Applicability of Municipality/County Mandates Provision:

Not applicable. This bill does not appear to: require counties or municipalities to spend funds or take action requiring the expenditure of funds; reduce the authority that counties or municipalities have to raise revenues in the aggregate; or reduce the percentage of state tax shared with counties or municipalities.

3. Other:

Privacy

Governmental action is subject to the requirements of the Fourth Amendment of the U.S. Constitution. Under Fourth Amendment jurisprudence, a search occurs whenever the government intrudes upon an area in which a person has a reasonable expectation of privacy. If there is no reasonable expectation of privacy in the area, Fourth Amendment protections do not apply. The bill authorizes a state agency or political subdivision to use a drone to assess damage from a natural disaster, commonly capturing images in areas accessible by and available to the public, and thus generally will not intrude into areas in which there is a reasonable expectation of privacy. However, if a state agency or political subdivision uses a drone in a manner that qualifies as a search because there is a reasonable expectation of privacy in the area, it must either secure a warrant or an exception to the warrant requirement must apply.

Preemption

The regulation of the national airspace and the aircraft that occupy it is generally a federal matter.⁴³ However, courts have recognized that “laws traditionally related to state and local police power – including land use, zoning, privacy, trespass, and law enforcement operations – generally are not subject to federal regulation.” Because the bill relates to these exceptions, it may not regulate an area exclusively regulated by the federal government.⁴⁴

B. RULE-MAKING AUTHORITY:

The bill does not authorize or require rulemaking.

C. DRAFTING ISSUES OR OTHER COMMENTS:

None.

IV. AMENDMENTS/ COMMITTEE SUBSTITUTE CHANGES

⁴³ Congress has vested the FAA with authority to regulate the areas of airspace use, management and efficiency, air traffic control, safety, navigational facilities, and aircraft noise at its source. 49 U.S.C. §§ 40103, 44502, and 44701-44735.

⁴⁴ *Skysign International, Inc. v. City and County of Honolulu*, 276 F.3d 1109, 1115 (9th Cir. 2002).