

HOUSE OF REPRESENTATIVES STAFF ANALYSIS

BILL #: CS/CS/HB 645 Unmanned Aircraft Systems Act

SPONSOR(S): Infrastructure Strategies Committee, Transportation & Modals Subcommittee, Brackett

TIED BILLS: IDEN./SIM. BILLS: CS/SB 908

REFERENCE	ACTION	ANALYST	STAFF DIRECTOR or BUDGET/POLICY CHIEF
1) Transportation & Modals Subcommittee	16 Y, 0 N, As CS	Lewis	Hinshelwood
2) Criminal Justice Subcommittee	17 Y, 0 N	Hall	Hall
3) Infrastructure Strategies Committee	22 Y, 0 N, As CS	Lewis	Harrington

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 protects critical infrastructure facilities from dangers associated with drone operation by criminalizing knowingly and willfully:

- Operating a drone over a critical infrastructure facility;
- Allowing a drone to make contact with a critical infrastructure facility, including any person or object on the premises of or within the facility; or
- Allowing a drone to come close enough to a critical infrastructure facility as to interfere with the operations of or cause a disturbance to the facility.

CS/CS/HB 645 amends s. 330.41, F.S., to expand the definition of "critical infrastructure facility" to include:

- A water intake structure, water treatment facility, wastewater treatment plant, or pump station;
- A liquid natural gas or propane gas terminal or storage facility, regardless of capacity;
- A refinery;
- A gas processing plant including a plant used in the processing, treatment, or fractionation of natural gas;
- A seaport;
- An inland port or other facility serving as a point of intermodal transfer of freight;
- An airport;
- A spaceport territory;
- Certain military installations and armory; and
- A dam or other structures such as locks, floodgates, or dikes, which are designed to maintain or control the level of navigable waterways.

The bill removes the requirement that a person or governmental entity seeking to restrict or limit the operation of drones in close proximity to infrastructure or facilities must apply to the Federal Aviation Administration for such designation under s. 2209 of the FAA Extension, Safety, and Security Act of 2016.

The bill removes the provision that a drone operating in transit for commercial purposes can operate over a critical infrastructure facility.

The bill sunsets the definition of "critical infrastructure facility," consistent with the sunset under current law of criminal penalties, once a process pursuant to s. 2209 of the FAA Extension, Safety, and Security Act of 2016 becomes effective.

The bill incorporates a definition of "critical infrastructure facility" as defined in s. 692.201, F.S., effective on the same date that HB 1355 (2023), or similar legislation, takes effect. The rest of the bill has an effective date of July 1, 2023.

The bill has a likely insignificant fiscal impact on state and local governments and an indeterminate fiscal impact on the private sector.

This document does not reflect the intent or official position of the bill sponsor or House of Representatives.

STORAGE NAME: h0645e.ISC

DATE: 3/28/2023

FULL ANALYSIS

I. SUBSTANTIVE ANALYSIS

A. EFFECT OF PROPOSED CHANGES:

Background

Under Florida law, 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.¹

The full system comprised of a drone and its associated elements, including communication links and the components that control the drone which are required for safe and efficient operation, is called an unmanned aircraft system (UAS).²

Federal Drone Regulation

The Federal Aviation Administration (FAA) regulates the use of navigable airspace to ensure the safety of aircraft and the efficient use of airspace.³ A pilot in control of a small UAS⁴ must comply with all of the following operating limitations:

- The groundspeed of the small UAS may not exceed 87 knots (100 miles per hour);
- The altitude of the small UAS cannot be higher than 400 feet above ground level, unless the small UAS is flown within a 400-foot radius of a structure;
- The minimum flight visibility, as observed from the location of the control station must be no less than 3 statute miles and must be seen at all times during the flight without any device other than corrective lenses;
- The minimum distance of the small unmanned aircraft from clouds must be no less than 500 feet below the cloud and 2,000 feet horizontally from the cloud.⁵

An owner, remote pilot in command, or person manipulating the flight controls of a small UAS must physically possess a remote pilot certificate⁶ with a small UAS rating and identification when operating a small UAS.⁷ Anyone flying pursuant to the small UAS regulations has to register each drone they intend to operate with the FAA prior to operation.⁸

In 2016, Congress enacted the FAA Extension, Safety, and Security Act (FAAESSA).⁹ The federal law requires the FAA to establish defined boundaries protecting “critical infrastructure” from unauthorized drones. Specifically, the Federal Department of Transportation must establish procedures for applicants to petition the FAA to prohibit or restrict the operation of drones in close proximity to a fixed site facility and the FAA must publish these designations on a public website.¹⁰ A “fixed site facility” is considered to be:

¹ S. 934.50(2)(a), F.S.

² S. 330.41(2)(c), F.S.

³ 49 U.S.C. § 40103.

⁴ 14 C.F.R § 107.3 defines a “small unmanned aircraft” as an unmanned aircraft weighing less than 55 pounds on takeoff, including everything that is on board or otherwise attached to the aircraft.

⁵ 14 C.F.R § 107.51.

⁶ A person must be at least 16 years old to qualify for a remote pilot certificate. To obtain the certificate you must either pass an initial aeronautical knowledge test at an FAA-approved knowledge testing center, or if you already have a Part 61 pilot certificate, you must have completed a flight review in the previous 24 months and you must take a small UAS online training course provided by the FAA.

⁷ 14 C.F.R § 107.7.

⁸ Federal Aviation Administration FAADroneZone, <https://faadronezone-access.faa.gov/#/> (last visited Feb. 28, 2023).

⁹ Pub. L. No. 114-190.

¹⁰ *Id.* at § 2209.

- Critical infrastructure, such as energy production, transmission, and distribution facilities and equipment;
- Oil refineries and chemical facilities;
- Amusement parks; and
- Other locations that warrant such restrictions.¹¹

To date, the FAA has not established the process by which entities may apply for a designation prohibiting or restricting drone operations in close proximity to fixed site facilities such as critical infrastructure facilities. Without the enactment of the federal law, states have been enacting their own legislation to protect and define critical infrastructure sites.¹² Recently, industry leaders and stakeholders have urged the FAA to publish a proposed rule to bring clarity to the national airspace and eliminate state inconsistencies for drone operation.¹³

State Drone Regulation and Protection of Critical Infrastructure Facilities

In Florida, the authority to regulate the operation of unmanned aircraft systems is preempted to the state.¹⁴ Political subdivisions may not enforce ordinances or resolutions impacting the design, manufacture, testing, maintenance, licensing, registration, certification, or operation of an unmanned aircraft system.¹⁵ However, political subdivisions may enact or enforce ordinances relating to nuisances, voyeurism, harassment, reckless endangerment, property damage, or other illegal acts arising from the use of unmanned aircraft systems if such laws or ordinances are not specifically related to the use of an unmanned aircraft system for those illegal acts.¹⁶

Florida law specifies that a person or governmental entity must apply to the FAA to restrict the operation of drones in close proximity to infrastructure or facilities that the person or government entity owns, pursuant to s. 2209 of the FAAESSA¹⁷, even though this process does not yet exist.¹⁸

The Unmanned Aircraft Systems Act in Florida law defines a “critical infrastructure facility” as any of the following, if completely enclosed by a fence or other physical barrier, or if clearly marked with a sign or signs that indicate entry is forbidden:

- An electrical power generation or transmission facility, substation, switching station, or electrical control center;
- A chemical or rubber manufacturing or storage facility;
- A mining facility;
- A natural gas or compressed gas compressor station, storage facility, or natural gas or compressed gas pipeline;
- A liquid natural gas or propane gas terminal or storage facility with a capacity of 4,000 gallons or more;
- Any portion of an aboveground oil or gas pipeline;
- A wireless communications facility, including the tower, antennae, support structures, and all associated ground-based equipment;
- A state correctional institution or a private correctional facility;
- A secure detention center or facility, or a nonsecure residential facility, a high-risk residential facility, or a maximum-risk residential facility; or
- A county detention facility.¹⁹

¹¹ *Id.*

¹² National Conference of State Legislators, *Current Unmanned Aircraft State Law Landscape*, <https://www.ncsl.org/transportation/current-unmanned-aircraft-state-law-landscape> (last visited Feb. 28, 2023).

¹³ Commercial Drone Alliance, *Letter to FAA on 2209 Rulemaking (July 11, 2021)*, <https://www.commercialdronealliance.org/letters-comments/letter-to-faa-on-2209-rulemaking> (last visited Feb. 28, 2023).

¹⁴ S. 330.41(3)(a), F.S.

¹⁵ S. 330.41(3)(b), F.S.

¹⁶ S. 330.41(3)(c), F.S.

¹⁷ S. 330.41(3)(d), F.S.

¹⁸ *Supra.* at notes 12 and 13.

¹⁹ S. 330.41(2)(a), F.S.

Under this Act, in Florida, it is a crime to knowingly or willfully:

- Operate a drone over a critical infrastructure facility;
- Allow a drone to make contact with a critical infrastructure facility, including any person or object on the premises of or within the facility; or
- Allow a drone to come close enough to a critical infrastructure facility as to interfere with the operations of or cause a disturbance to the facility.²⁰

A first-time violation is a second-degree misdemeanor, and a second or subsequent violation is a first-degree misdemeanor.²¹ According to the Florida Department of Law Enforcement's Computerized Criminal History database, there have been two recorded arrests for the unlawful operation of a drone over, in contact with, or near a critical infrastructure facility.²²

The criminal prohibition against operating a drone in close proximity to critical infrastructure facilities sunsets 60 days after the FAA establishes the designation process directed under s.2209 of the FAAESSA.²³

Under a law unrelated to drones, Florida law defines a "critical infrastructure facility" in relation to temporary detention by a licensed security officer or licensed security agency manager. In that statute, the term "critical infrastructure facility" means any of the following:

- A chemical manufacturing facility;
- A refinery;
- An electrical power plant, including a substation, switching station, electrical control center, or electric transmission or distribution facility;
- A water intake structure, water treatment facility, wastewater treatment plant, or pump station;
- A natural gas transmission compressor station;
- A liquid natural gas terminal or storage facility;
- A telecommunications central switching office;
- A deepwater port or railroad switching yard; or
- A gas processing plant, including a plant used in the processing, treatment, or fractionation of natural gas.²⁴

HB 1355 (2023)

HB 1355 (2023) creates s. 692.201, F.S., and creates a definition of "critical infrastructure facility." The bill provides that the term includes:

- A chemical manufacturing facility;
- A refinery;
- An electrical power plant, including a substation, switching station, electrical control center, or electric transmission or distribution facility;
- A water intake structure, water treatment facility, wastewater treatment plant, or pump station;
- A natural gas transmission compressor station;
- A liquid natural gas terminal or storage facility;
- A telecommunications central switching office;
- An inland port or other facility or group of facilities serving as a point of intermodal transfer of freight in a specific area physically separated from a seaport;
- A gas processing plant, including a plant used in the processing, treatment, or fractionation of natural gas;
- A seaport; and

²⁰ S. 330.41(4)(a), F.S.

²¹ S. 330.41(4)(b), F.S. A second-degree misdemeanor is punishable by up to 60 days in county jail and a \$500 fine; a first-degree misdemeanor is punishable by up to one year in county jail and a \$1,000 fine. s.s. 775.082 and 775.083, F.S.

²² Email from Bobbie Smith, Deputy Director of Legislative Affairs, Florida Department of Law Enforcement, RE: HB 645 - Drone Operation Over Critical Infrastructure Facilities (Mar. 2, 2023).

²³ S. 330.41(4)(e), F.S.

²⁴ S. 493.631(1), F.S.

- A spaceport.

Effect of the Bill

CS/CS/HB 645 amends s. 330.41, F.S., to expand the definition of “critical infrastructure facility” to include:

- A water intake structure, water treatment facility, wastewater treatment plant, or pump station;
- A liquid natural gas or propane gas terminal or storage facility, regardless of capacity;
- A refinery;
- A gas processing plant, including a plant used in the processing, treatment, or fractionation of natural gas;
- A seaport;
- An inland port or other facility or group of facilities serving as a point of intermodal transfer of freight;
- An airport;
- A spaceport territory;
- Certain military installations and armories;²⁵ and
- A dam or other structures such as locks, floodgates, or dikes, which are designed to maintain or control the level of navigable waterways.

The bill exempts seaports from the requirement that the facility be completely enclosed by a fence or other physical barrier or have posted signage indicating that entry is forbidden.

The bill removes the requirement that a person or governmental entity seeking to restrict or limit the operation of drones in close proximity to infrastructure or facilities that the person or governmental entity owns or operates must apply to the FAA for such designation under s. 2209 of the FAAESSA.

The bill removes the provision that a drone operating in transit for commercial purposes in compliance with the FAA may operate over a critical infrastructure facility.

The bill amends the sunset provision in s. 330.41, F.S., to include the definition of critical infrastructure facility. Therefore, once the FAA establishes the designation process under the FAAESSA to protect fixed site facilities such as critical infrastructure facilities, the criminal provisions *and* the definition of “critical infrastructure facility” in s. 330.41, F.S., will be repealed 60 days thereafter.

The bill adds a critical infrastructure facility, as defined in s. 692.201, to the definition of critical infrastructure facility upon the passage of HB 1355, or similar legislation.

B. SECTION DIRECTORY:

Section 1: Amends s. 330.41, F.S., relating to Unmanned Aircraft Systems Act.

Section 2: Amends s. 330.14, F.S., relating to Unmanned Aircraft Systems Act contingent upon other legislation.

Section 3: Provides that the act takes effect on July 1, 2023, except as otherwise expressly provided.

²⁵ Conforms to the definition in HB 1355 (2023), which defines “military installation” as having the same definition as in 10 U.S.C. s. 2801(c)(4) and includes armory as defined in s. 250.01, F.S.

II. FISCAL ANALYSIS & ECONOMIC IMPACT STATEMENT

A. FISCAL IMPACT ON STATE GOVERNMENT:

1. Revenues:

None.

2. Expenditures:

Likely insignificant. There have been only two recorded arrests for the unlawful operation of a drone over, in contact with, or near a critical infrastructure facility since the law was passed in 2017.

B. FISCAL IMPACT ON LOCAL GOVERNMENTS:

1. Revenues:

None.

2. Expenditures:

Likely insignificant. There have been only two recorded arrests for the unlawful operation of a drone over, in contact with, or near a critical infrastructure facility since the law was passed in 2017.

C. DIRECT ECONOMIC IMPACT ON PRIVATE SECTOR:

Indeterminate.

D. FISCAL COMMENTS:

None.

III. COMMENTS

A. CONSTITUTIONAL ISSUES:

1. Applicability of Municipality/County Mandates Provision:

Not applicable. This bill does not require counties or municipalities to spend funds or take action requiring the expenditures 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.

2. Other:

None.

B. RULE-MAKING AUTHORITY:

None.

C. DRAFTING ISSUES OR OTHER COMMENTS:

None.

IV. AMENDMENTS/COMMITTEE SUBSTITUTE CHANGES

On March 10, 2023, the Transportation & Modals Subcommittee considered one amendment, which was adopted, and reported the bill favorably as a committee substitute. The committee substitute differs from HB 645 in that it:

- Expands the definition of “critical infrastructure facility.”

- Removes a provision allowing drones in transit for commercial purposes to operate over a critical infrastructure facility.
- Sunsets the definition of “critical infrastructure facility” consistent with the sunset of criminal penalties under current law.

On March 27, 2023, the Infrastructure Strategies Committee considered one amendment, which was adopted, and reported the bill favorably as a committee substitute to the committee substitute. The committee substitute differs from CS/HB 645 in that it:

- Expands the definition of “critical infrastructure facility.”
- Updates the definition of “military installation” to match federal law.
- Adds the definition of “critical infrastructure facility” as defined in s. 692.201, F.S., contingent upon HB 1355 or similar legislation’s passage.

The analysis is drafted to the committee substitute.