HOUSE OF REPRESENTATIVES STAFF ANALYSIS

BILL #: CS/CS/HB 981 Aviation
SPONSOR(S): Infrastructure Strategies Committee, Transportation & Modals Subcommittee, Bankson
TIED BILLS: **IDEN./SIM. BILLS:**

REFERENCE	ACTION	ANALYST	STAFF DIRECTOR or BUDGET/POLICY CHIEF
1) Transportation & Modals Subcommittee	15 Y, 0 N, As CS	Walker	Hinshelwood
2) Infrastructure & Tourism Appropriations Subcommittee	14 Y, 0 N	McAuliffe	Davis
3) Infrastructure Strategies Committee	22 Y, 0 N, As CS	Walker	Harrington

SUMMARY ANALYSIS

The term "advanced air mobility" (AAM) is defined in federal law as a transportation system that transports people and property by air between two points in the United States using aircraft with advanced technologies, including electric aircraft, or electric vertical takeoff and landing (eVTOL) aircraft, in both controlled and uncontrolled airspace. Florida is a target market for early-stage AAM, and the AAM market is projected to reach more than $1 trillion by 2040. Related to AAM, the bill:

- Provides that it is the intent of the Legislature to promote the development of vertical takeoff and landing aircraft and vertiports that will provide residents and visitors of this state with access to AAM operations.
- Specifies the approval process for a vertiport and requires the Florida Department of Transportation (FDOT) to conduct a physical site inspection of a vertiport as part of the approval process.
- Directs FDOT to:
  - Address the need for vertiports, AAM, and other advances in aviation technology in the statewide aviation system plan, and as appropriate, in FDOT's work program;
  - Serve as a resource for local jurisdictions and developers and operators of vertical takeoff and landing aircraft and vertiports;
  - Designate a subject matter expert on AAM within the FDOT;
  - Lead a statewide education campaign for local officials to provide education on the benefits of AAM and advances in aviation technology;
  - Provide local jurisdictions with a guidebook and technical resources to support uniform planning and zoning language across this state related to AAM and other advances in aviation technology;
  - Conduct a review of airport hazard zone regulations;
  - Coordinate with large hub airports to develop, fund, and enact projects to test and integrate AAM concepts and their support systems; and
  - Provide an AAM report to the Governor and the Legislature by October 15, 2025.
- Provides that certain airports must competitively bid a contract for a vertiport operator for a public-use vertiport, which operator will receive public funding for such operations.

Relating to airport regulations more generally, the bill:

- Clarifies the definitions of "aircraft" and "airport" and deletes an unnecessary definition of "ultralight aircraft".
- Requires airport land use compatibility zoning regulations to "address", rather than merely "consider", the list of things specified in statute.
- Generally prohibits residential construction and educational facilities within a specified buffer zone adjacent to an airport, if the airport has not conducted a noise study in order to better define adjacent areas that are incompatible with residential construction and educational facilities.
- Adds an exception to the buffer zone described above in order to allow residential property within the buffer zone of a public-use airport that has as its sole runway a turf runway measuring less than 2,800 in length.

The bill will have an indeterminate negative fiscal impact on the state which the department can absorb within existing resources. The bill will likely have an indeterminate positive fiscal impact on the private sector.

The bill provides an effective date of July 1, 2024.

FULL ANALYSIS

I. SUBSTANTIVE ANALYSIS

A. EFFECT OF PROPOSED CHANGES:

Background

Advanced Air Mobility (AAM)

The term AAM is defined in federal law as a transportation system that transports people and property by air between two points in the United States using aircraft with advanced technologies, including electric aircraft, or electric vertical takeoff and landing (eVTOL) aircraft, in both controlled and uncontrolled airspace.[1]

Comparable with airports, AAM will be regulated by the Federal Aviation Administration (FAA). The FAA is currently working with AAM stakeholders and engaging in rulemaking to enable AAM operations in the United States. The FAA has acknowledged that it expects to refine this framework by 2028 in order to integrate AAM systems and technology in the United States.[2]

AAM in Florida

Florida is a target market for early-stage AAM, and the AAM market is projected to reach more than $1 trillion by 2040.[3] Therefore, the state of Florida, and specifically the Florida Department of Transportation (FDOT), has made efforts to embrace and prepare for the integration of AAM systems. For example, FDOT established an AAM working group of over 50 stakeholders to evaluate the feasibility of AAM utilization in the state and continues to engage with stakeholders.[4]

Many stakeholders, such as Original Equipment Manufacturers (OEMs) and their infrastructure partners are ready for early operations in Florida. Such entities include, but are not limited to, Archer, Beta, Blade, Ferrovial Vertiports, Joby, Lilium, Skyports Infrastructure, Supernal, Vertical, Volocopter, Wisk, and Mobility Reimagined.[5]

The entities such as Ferrovial and Skyports build, finance, and operate infrastructure specifically for eVTOL, such as vertiports.[6] Other entities, such as Blade, create platforms to allow passengers of AAMs to book rides. Finally, as detailed in figure 1 below, other major entities have developed their own unique AAM aircrafts. Benefits of these AAM aircrafts include, zero operating emissions and significantly lower noise profile than a traditional aircraft.[7]

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[1] AAM Coordination and Leadership Act, Pub. L. No. 117-203, 136 Stat. 2227 (Oct. 17, 2022).

[2] Federal Aviation Administration (FAA), *AAM Implementation Plan, Near-term (Innovative 28) Focus with an Eye on the Future of AAM Version 1.0*, (July 2023), https://www.faa.gov/sites/faa.gov/files/AAM-I28-Implementation-Plan.pdf (last visited Feb. 14, 2024).

[3] FDOT, *AAM Presentation*, (Oct. 17, 2023), https://www.myfloridahouse.gov/Sections/Documents/loaddoc.aspx?PublicationType=Committees&CommitteeId=3250&Session=2024&DocumentType=Meeting+Packets&FileName=tms+10-17-23.pdf (last visited Feb. 14, 2024). *See also* Morgan Stanley, *Are Flying Cars Preparing for Takeoff?,* (Jan. 26, 2019), ttps://www.morganstanley.com/ideas/autonomous-aircraft#:~:text=The%20report%20projects%20a%20total,of%20sectors%20along%20the%20way. (last visited Feb. 14, 2024).

[4] FDOT, *AAM Working Group Report Executive Summary*, (August 2023), https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/aviation/pdfs/fdot-aamwg-report-executive-summary---august-2023-final.pdf?sfvrsn=9ef90052_1 (last visited Feb. 14, 2024).

[5] *Supra* note 3, at p. 5.

[6] Vertiports are defined by the FAA as an area of land, or a structure, used or intended to be used, for electric, hydrogen, and hybrid VTOL aircraft landings and takeoffs and includes associated buildings and facilities. FAA, *Engineering Brief 105, Vertiport Design,* (Sep. 21, 2022), https://www.faa.gov/sites/faa.gov/files/eb-105-vertiports.pdf, p. 11 (last visited Feb. 14, 2024).

[7] Florida House of Representatives, Transportation & Modals Subcommittee, *AAM Industry Overview*, (October 17. 2023), https://www.myfloridahouse.gov/Sections/Documents/loaddoc.aspx?PublicationType=Committees&CommitteeId=3250&Session=2024&DocumentType=Meeting+Packets&FileName=tms+10-17-23.pdf (last visited Feb. 14, 2024).

Figure 1: AAM Aircrafts[8]

Archer

Type: Pilot + 4 passengers
Range: 75 miles
Speed: 150 mph
Bus. Model: UAM
Cert: 2024

Joby

Type: Pilot + 4 passengers
Range: 100 miles
Speed: 200 mph
Bus. Model: UAM
Cert: 2025

Lilium

Type: Pilot + 4 or 6 passengers
Range: 110 miles
Speed: 175 mph
Bus. Model: RAM
Cert: 2025

Volocopter

Type: Pilot + 1 passenger
Range: 25 miles
Speed: 55mph
Bus. Model: UAM
Cert: 2024
EIS: Paris 2024, Rome 2024

Eve Air Mobility

Type: Piloted + 4 passengers
Range: 60 miles
Speed: 125 mph
Bus. Model: UAM
Cert: 2025

Wisk

Type: Self-flying, 4 passengers
Range: 90 miles
Speed: 138 mph
Bus. Model: UAM
Cert: Before 2030

BETA

Type: Piloted + Cargo or 5 passenger
Range: Target 250 miles
Speed: Over 100 mph
Model: Cargo, RAM, or UAM
Cert: eCTOL 2025; eVTOL 2026

Type: Piloted + 4 passengers
Range: 90-125 miles
Speed: 115 mph
Bus. Model: RAM, UAM
Cert: 2026

Establishing a New Airport

Under Florida law, an owner or lessee of a proposed airport must, before site acquisition or construction or establishment of the proposed airport, obtain approval of the airport site from FDOT. Applications for approval of a site are made in a form and manner prescribed by FDOT.[9]

The following three steps are required for the airport application process in Florida:[10]

Step 1: Obtain Local Zoning or Receive Confirmation Local Zoning is Not Applicable

The applicant must receive and include a copy of all related correspondence from each city or county authority, including a statement that the proposed airport site is in compliance with local zoning requirements or that such requirements are not applicable.[11]

Step 2: Receive FAA Airspace Approval

The applicant must provide a copy of the notification to the FAA regarding the proposed airport site and a copy of the FAA's airspace approval correspondence given in response.[12]

Step 3: Submit an Airport Site Approval Application to FDOT

The documentation that must accompany this application includes a copy of property rights; facility

[8] *Id.*
[9] S. 330.30(1)(a), F.S.
[10] FDOT, *Establishing a New Airport, Heliport or Seaplane Base*, https://www.fdot.gov/aviation/establishinganewairportheliportorseaplanebase (last visited Feb. 14, 2024).
[11] R. 14-60.005, F.A.C
[12] *Id.*

diagram; geodetic location map; location map; a list of nearby aviation facilities and notification of the proposed site to those airports; copies of notification letters to local governments; adjacent property owner notification and public notice of the proposed airport; location of waste sites within a certain distance from the airport; graphical depiction of the proposed air traffic patterns; confirmation that the runway and taxiway design have taken into account manufacturer's performance characteristics for the types of aircraft planned to be operated; security factors taken to secure the airport site from unauthorized access to safeguard airport and aircraft operations; and FAA approval.[13]

After the above steps have been taken by the applicant, FDOT must grant approval if it is satisfied that:

- The site has adequate area allocated for the airport as proposed;
- The proposed airport will conform to licensing or registration requirements and will comply with the applicable local government land development regulations or zoning requirements;
- All affected airports, local governments, and property owners have been notified and any comments submitted by them have been given adequate consideration; and
- That safe air-traffic patterns can be established for the proposed airport with all existing airports and approved airport sites in its vicinity.[14]

If the airport is public, then site approval must be granted after a favorable FDOT inspection of the proposed site.[15] If the airport is a private entity, then no inspection of the proposed site is required in order to receive approval.[16] Site approval may be granted subject to any reasonable conditions FDOT deems necessary to protect the public health, safety, or welfare.[17]

Approval as a public airport or a private airport must remain valid for 2 years after the date of issue unless revoked by FDOT or unless a public airport license is issued or a private airport registration is completed before the expiration date.[18]

FDOT may revoke an airport site approval if it determines that:

- The site has been abandoned as an airport site;
- The site has not been developed as an airport within a reasonable time period or development does not comply with the conditions of the site approval;
- Except as required for in-flight emergencies, aircraft have operated on the site; or
- That the site is no longer usable for aviation purposes due to physical or legal changes in conditions that were the subject of the approval granted.[19]

FDOT must issue a license for a *public* airport if such airport was granted site approval and passes a final airport inspection by FDOT that determines if the airport is in compliance with all requirements for the license. The license may be subject to any reasonable conditions FDOT deems necessary to protect the public health, safety, or welfare.[20]

FDOT must issue a license for a *private* airport if such airport was granted site approval and completes the registration process. Registration must be completed upon self-certification by the registrant of operational and configuration data deemed necessary by FDOT.[21]

Airport Land Use Compatibility Zoning Regulations

Political subdivisions must adopt, administer, and enforce airport land use compatibility zoning regulations relating to airport hazard areas. The following are minimum requirements that political subdivisions must consider in their airport land use compatibility zoning regulations: [22]

[13] *Id.*
[14] S. 330.30(1)(a), F.S.
[15] S. 330.30(1)(b), F.S.
[16] S. 330.30(1)(c), F.S.
[17] S. 330.30(1)(f), F.S.
[18] S. 330.30(1)(g), F.S.
[19] S. 330.30(1)(i), F.S.
[20] S. 330.30(2)(a), F.S.
[21] *Id.*
[22] S. 333.03(2), F.S.

- The prohibition of new landfills and the restriction of existing landfills when such areas are:
    - Within 10,000 feet from the nearest point of any runway used or planned to be used by turbine aircraft.
    - Within 5,000 feet from the nearest point of any runway used by only nonturbine aircraft.
    - Outside the perimeters above, but still within the lateral limits of the civil airport imaginary surfaces. Case-by-case review of such landfills is advised.
- Where any landfill is located and constructed in a manner that attracts or sustains hazardous bird movements from feeding, water, or roosting areas into, or across, the runways or approach and departure patterns of aircraft. The landfill operator must incorporate bird management techniques or other practices to minimize bird hazards to airborne aircraft.
- Where an airport authority or other governing body operating a public-use airport has conducted a noise study in accordance with 14 C.F.R. part 150, or where a public-use airport owner has established noise contours pursuant to another public study accepted by the FAA, the prohibition of incompatible uses, as established in the noise study in 14 C.F.R. part 150, Appendix A or as a part of an alternative FAA-accepted public study, within the noise contours established by any of these studies, except if such uses are specifically contemplated by such study with appropriate mitigation or similar techniques described in the study.
- Where an airport authority or other governing body operating a public-use airport has not conducted a noise study, the mitigation of potential incompatible uses associated with residential construction and any educational facility, with the exception of aviation school facilities, within an area contiguous to the airport measuring one-half the length of the longest runway on either side of and at the end of each runway centerline.
- The restriction of new incompatible uses, activities, or substantial modifications to existing incompatible uses within runway protection zones.

Effect of the Bill

Airports Generally

The bill amends the definition of "aircraft" and "airport" to specify particular types of aircraft and airports, respectively, that are covered by the current definitions of each, in order to bring clarity to the public regarding types of aircraft and airports that are subject to regulation. The bill further clarifies the definition of "airport" by using the term "airport operations", rather than "landing and takeoff of aircraft", in order to clearly cover operations such as taxiing on the runway. Additionally, the bill clarifies that the definition of "airport" covers areas where aircraft operations occur, even if there is only a runway and no associated buildings, facilities, etc. Lastly, the bill deletes the definition of "ultralight aircraft", which is unnecessary since the term is defined in federal law.

AAM

The bill specifies that the owner or lessee of a proposed vertiport must comply with requirements to obtain site approval and requirements to obtain an airport license or registration. In conjunction with the granting of site approval, FDOT must conduct a final physical inspection of the vertiport to ensure compliance with all the requirements for airport licensure or registration.

The bill provides that it is the intent of the Legislature to promote the development of vertical takeoff and landing aircraft and vertiports that will provide residents and visitors of this state with access to AAM operations.

The bill directs FDOT to:

- Address the need for vertiports, AAM, and other advances in aviation technology in the statewide aviation system plan[23], and as appropriate, in FDOT's work program[24];

[23] Section 322.006(1), F.S., requires FDOT to develop and periodically update a statewide aviation system plan which summarizes 5-year, 10-year, and 20-year airport and aviation needs within the state. The statewide aviation system plan must be consistent with the goals of the Florida Transportation Plan. The statewide aviation system plan does not preempt local airport master plans adopted in compliance with federal and state requirements.

[24] FDOT's annual budget is approved by the Legislature and the Governor and contains funding for transportation related projects through the inclusion and adoption of the Five-Year Work Program, which is a list of transportation projects

- Serve as a resource for local jurisdictions and developers and operators of vertical takeoff and landing aircraft and vertiports;
- Designate a subject matter expert on AAM within the FDOT to serve as a resource for local jurisdictions navigating advances in aviation technology, including vertical takeoff and landing aircraft and electrification of aviation;
- Lead a statewide education campaign for local officials to provide education on the benefits of AAM and advances in aviation technology and to support efforts to make this state a leader in aviation technology;
- Provide local jurisdictions with a guidebook and technical resources to support uniform planning and zoning language across this state related to AAM and other advances in aviation technology;
- Conduct a review of airport hazard zone regulations and, as needed, make recommendations to the Legislature proposing any changes to regulations as a result of the review; and
- Coordinate with large hub airports, as defined in 49 U.S.C. s. 47102[25], located in this state to develop, fund, and enact projects to test and integrate advanced air mobility concepts and their support systems.

By October 15, 2025, FDOT must provide to the Governor, the President of the Senate, and the Speaker of the House of Representatives a report describing all of the following:

- The status of the AAM industry nationwide and of charging and fueling capabilities.
- Current and proposed airports where AAM operations are occurring or will occur.
- Advances in aviation technology relating to AAM.
- The status of federal regulations relevant to vertical takeoff and landing aircraft and vertiports, including any updates to 14 C.F.R. part 77 or other relevant federal regulations.
- Recommendations for ways, including potential statutory changes, to facilitate land use compatibility around vertiports.
- AAM best practices.
- Recommendations for increased FDOT personnel to accommodate necessary inspections of AAM operations.
- Recommendations for ways, including potential statutory changes, to incorporate AAM in FDOT's Strategic Intermodal System.
- Ways FDOT may use, promote, and further AAM for the public good, including, but not limited to, medical transportation, emergency services, law enforcement, and disaster relief.
- The future infrastructure needed to support and further AAM operations.

The bill provides that an airport owned by a municipality which seeks a vertiport operator for a public-use vertiport, which operator will receive public funding for such operations, must contract with an operator selected through a competitive bidding process under chapter 287[26] in compliance with the municipality's ordinances relating to procurement.

Airport Land Use Compatibility Zoning Regulations

The bill requires airport land use compatibility zoning regulations to "address", rather than merely "consider", the list of things specified in statute. The bill generally prohibits residential construction and educational facilities within a specified buffer zone adjacent to an airport, if the airport has not conducted a noise study in order to better define adjacent areas that are incompatible with residential construction and educational facilities. Additionally, the bill adds an exception to such buffer zone in

planned for each fiscal year. State taxes and fees, along with federal aid, make up the primary funding sources for the work program. Other funding sources include tolls collected in certain facilities, proceeds from bond issuances, and local taxes and fees. *See* Office of Work Program and Budget Florida Department of Transportation, *Florida Transportation Tax Sources,* (2023), p. 2, https://fdotewp1.dot.state.fl.us/FMSupportApps/Documents/pra/Primer.pdf#:~:text=STTF%E2%80%99s%20primary%20revenue%20sources%20from%20state%20taxes%20and,fuel%20taxes%20and%20motor%20vehicle%20license%20related%20fees. (last visited Feb. 15, 2024).

[25] 49 U.S.C. § 47102 defines "large hub airport" as a commercial service airport that has at least 1.0 percent of the passenger boardings.

[26] Chapter 287, F.S., relates to procurement of personal property and services.

order to allow residential property within the buffer zone of a public-use airport that has as its sole runway a turf runway measuring less than 2,800 in length.

Effective Date
The bill provides an effective date of July 1, 2024.

B. SECTION DIRECTORY:

Section 1 Amends s. 330.27, F.S., relating to definitions.

Section 2 Amends s. 330.30, F.S., relating to approval of airport sites; registration, and licensure of airports.

Section 3 Creates s. 332.15, F.S., relating to AAM.

Section 4 Amends s. 333.03, F.S., relating to requirement to adopt airport zoning regulations.

Section 5 Provides an effective date of July 1, 2024.

II. FISCAL ANALYSIS & ECONOMIC IMPACT STATEMENT

A. FISCAL IMPACT ON STATE GOVERNMENT:

1. Revenues:

   None.

2. Expenditures:

   The bill will have an indeterminate negative fiscal impact on FDOT, as it requires FDOT to:
   - Submit a report by October 15, 2025;
   - Designate an AAM subject matter expert within FDOT;
   - Lead a statewide education campaign;
   - Provide local jurisdictions with a guidebook and technical resources to support uniform planning and zoning language across this state related to AAM and other advances in aviation technology;
   - Conduct a review of airport hazard zone regulations and, as needed, make recommendations to the Legislature proposing any changes to regulations as a result of the review; and
   - Coordinate with large hub airports located in this state to develop, fund, and enact projects to test and integrate advanced air mobility concepts and their support systems.

   The FDOT can absorb the costs within existing resources.

B. FISCAL IMPACT ON LOCAL GOVERNMENTS:

1. Revenues:

   None.

2. Expenditures:

   None.

C. DIRECT ECONOMIC IMPACT ON PRIVATE SECTOR:

Indeterminate. The bill may promote the development of the AAM industry in Florida.

D. FISCAL COMMENTS:

None.

III. COMMENTS

A. CONSTITUTIONAL ISSUES:

1. Applicability of Municipality/County Mandates Provision:

Not Applicable. This bill does not appear to affect county or municipal governments.

2. Other:

None.

B. RULE-MAKING AUTHORITY:

Rulemaking may be necessary in order to conform to changes made by the bill.

C. DRAFTING ISSUES OR OTHER COMMENTS:

None.

IV. AMENDMENTS/COMMITTEE SUBSTITUTE CHANGES

On January 25, 2024, the Transportation & Modals Subcommittee adopted a proposed committee substitute (PCS) and reported the bill favorably as a committee substitute. The PCS:

- Amends the definitions of "airport" and "aircraft" and removes unnecessary definitions.
- Amends the vertiport registration and licensing process, while still requiring that FDOT conduct a physical site inspection for vertiports.
- Removes preemption of local regulations relating to vertiports.
- Restores current law that generally prohibits landfills in the immediate vicinity of an airport.
- Reverts portions of the airport zoning laws to language as it existed prior to changes made last Session. Specifically, the PCS:
    - Requires airport zoning regulations to "address" rather than merely "consider" a list of things specified in statute.
    - Generally prohibits residential construction and educational facilities within a specified buffer zone adjacent to an airport, if the airport has not conducted a noise study in order to better define adjacent areas that are incompatible with residential construction and educational facilities.
    - Adds an exception to the buffer zone described above in order to allow residential property within the buffer zone of a public-use airport that has as its sole runway a turf runway measuring less than 2,800 in length.
- Changes the effective date from October 1, 2024, to July 1, 2024.

On February 15, 2024, the Infrastructure Strategies Committee considered one amendment, which was adopted, and reported favorably as a committee substitute. The amendment:

- Removes the provision that designates the Greater Orlando Aviation Authority as the AAM test site for this state.
- Removes the requirement that the AAM subject matter expert within FDOT be located in the office of FDOT's district that includes the City of Orlando.
- Adds to the directives for FDOT relating to AAM and other advances in aviation technology.
- Changes the deadline of the AAM report to the Governor and the Legislature from December 31, 2024, to October 15, 2025.
- Provides that certain airports must competitively bid a contract for a vertiport operator for a public-use vertiport, which operator will receive public funding for such operations.

The analysis is drafted to the committee substitute as approved by the Infrastructure and Strategies Committee.