



ADVANCED AIR MOBILITY (AAM)

Florida Automated Vehicles Summit

Collaborating to Accelerate Florida's Advanced
Air Mobility (AAM) Future

September 7, 2023



AGENDA

- Introduction to AAM
- AAM in Florida
- Next Steps



WHAT IS ADVANCED AIR MOBILITY?

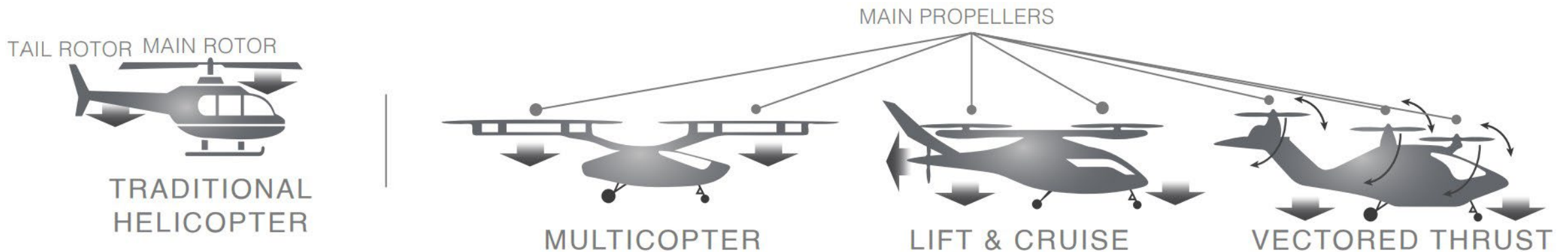
- An air transportation system primarily utilizing electric vertical takeoff and landing (eVTOL) aircraft
- AAM is possible due to advances in automation and distributed electric propulsion.

Morgan–Stanley projects a \$1 trillion AAM market by 2040, but numerous hurdles to overcome including:

- Lithium battery constraints
- Pilot/mechanic shortage
- Reactive regulatory environment
- Airspace management
- Charging infrastructure and grid capacity
- Public demand and acceptance

- Multicopter – looks and flies much like a helicopter except with multiple rotors
 - Lift and cruise – uses rotors for vertical flight and transitions to propellers for horizontal flight
 - Vecored thrust – uses rotors or fans for both vertical and horizontal flight
- Most eVTOLs in development have:
 - < 200 mile range
 - < 8 passengers
 - < 12,500 lb. Maximum Take-off Weight

eVTOL AIRCRAFT



USE CASES FOR AAM



AIR TAXI

Passenger travel in urban and regional areas, likely under part 135 certificate

Generally < 200 miles and < 8 passengers



AIR CARGO

"Middle mile," i.e., transporting existing cargo to/from airports or cargo facilities to distribution centers

High-value or time-sensitive cargo including medical cargo

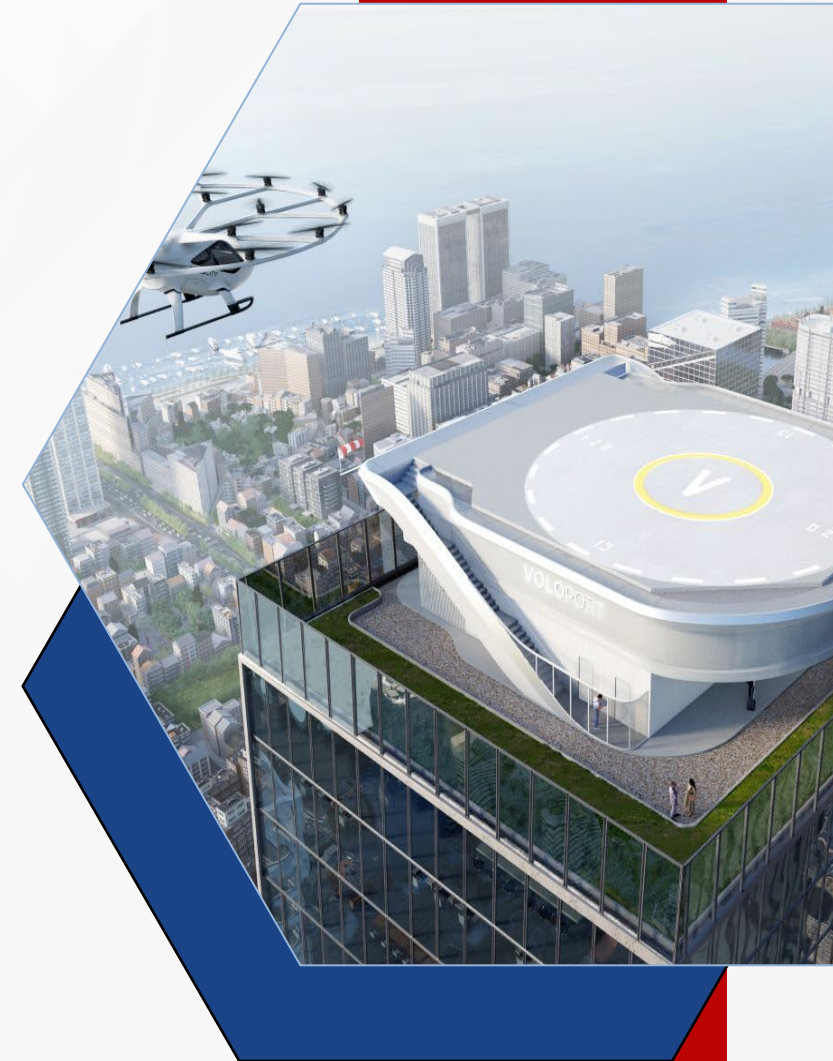


PUBLIC SERVICE

Supplementing or replacing helicopters for military, search and rescue, disaster relief, and air ambulance, among other uses

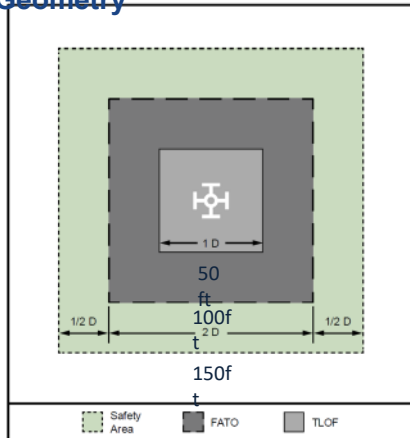
INFRASTRUCTURE DEVELOPMENT

- Early stages of AAM will rely on existing aviation/airport infrastructure
- FAA Engineering Brief 105 provides interim design standards for vertiports, in the absence of an Advisory Circular, which is expected in 2025 to 2026
- EB 105 is specific to visual flight rules (VFR), piloted eVTOL aircraft that are no more than 50 feet wide/long, $\leq 12,500$ MTOW, and are capable of hover out-of-ground effect
- Provides the basic minimum safety elements needed for a vertiport



INFRASTRUCTURE DEVELOPMENT

Basic Vertiport Landing Geometry

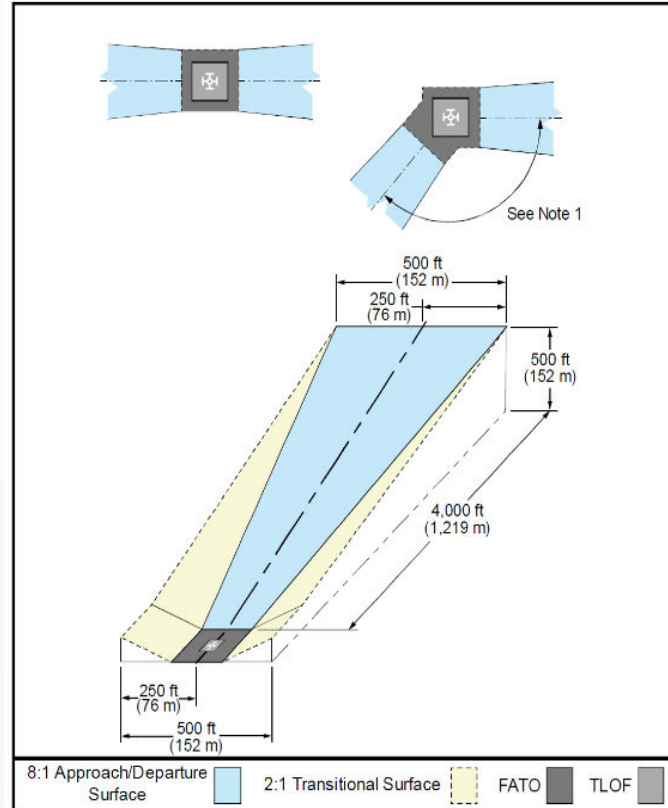


TLOF: Touchdown and Liftoff Area

FATO: Final Approach and Takeoff Area

Safety Area: Defined area surrounding the FATO

Basic Vertiport Imaginary Surfaces



Additional Considerations

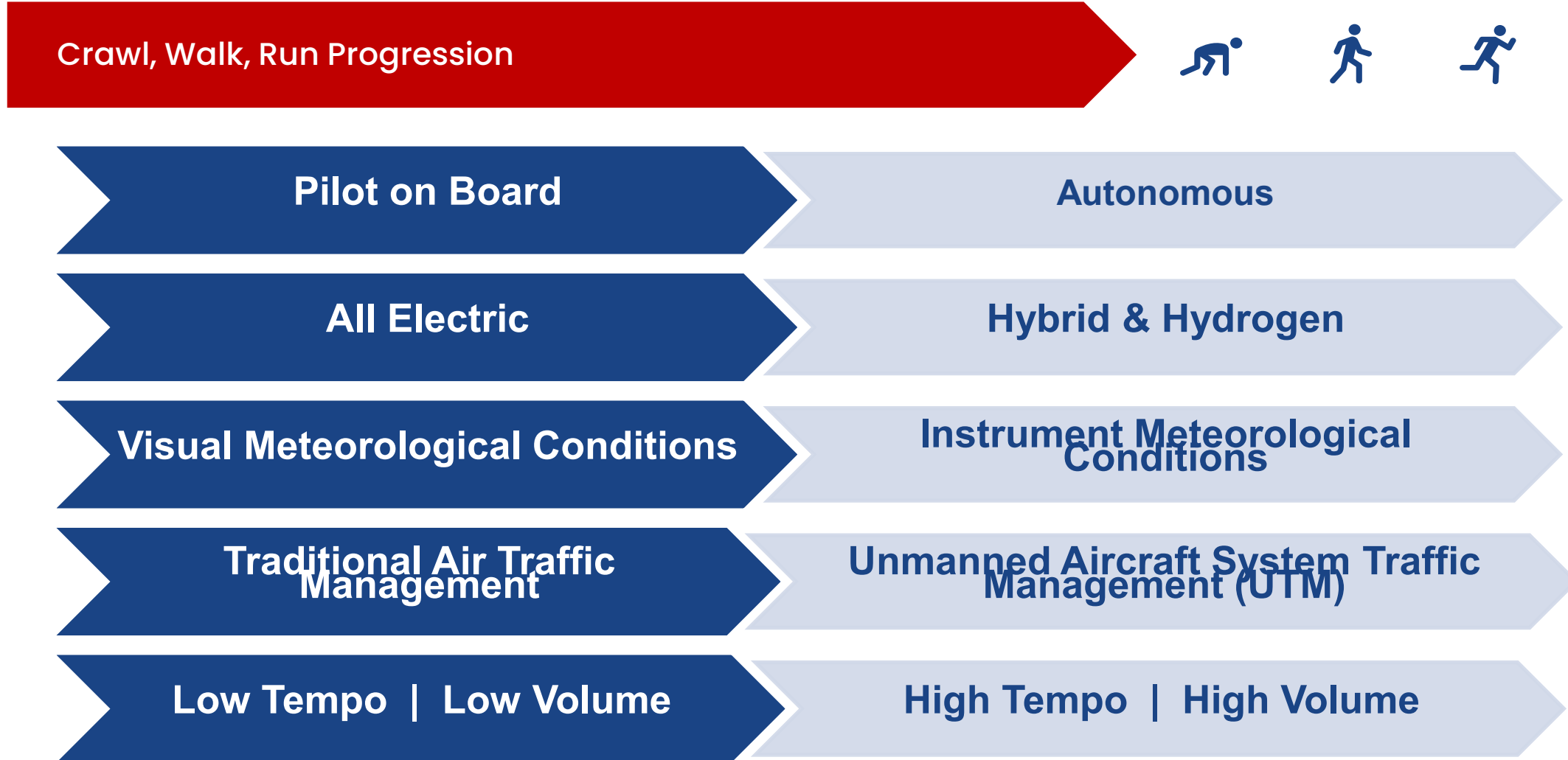
- Charging Infrastructure or Battery Swap Capability
- Maintenance, repair, and overhaul (MRO) Services
- Battery cell recycling
- Airport Rescue & Fire Fighting (ARFF)
- High-speed data



Gaps in Design Guidance

- Piloted, VFR flights only
- Distance between TLOFs for simultaneous operations
- Taxiway hold lines and independent use of taxiways within the protected surfaces of a TLOF
- Operational requirements (e.g., activities permitted near charging aircraft)
- These gaps will need to be filled in with assumptions based on heliport and airport design criteria.

ADVANCED AIR MOBILITY PROGRESSION



TRENDS AND TIMELINES FOR DEVELOPMENT

OEM	ARI	Use Case	Vehicle Type	Operation	First Flight	EIS	Country
Joby Aviation	8.7	Air Taxi	Vectored Thrust	Piloted	2018	2025	USA
Volocopter	8.6	Air Taxi	Multicopter / Lift + Cruise	Piloted	2021 / 2022	2024 / 2026	Germany
Archer	8.1	Air Taxi	Vectored Thrust	Piloted	2023	2025	USA
Beta Technologies	8.0	Cargo, Air Taxi	Lift + Cruise	Piloted	2020	2024	USA
Eve Holding	7.7	Air Taxi	Lift + Cruise	Piloted	2022	2026	Brazil
Wisk	7.5	Air Taxi	Vectored Thrust	Autonomous	-	-	USA
Ehang	7.4	Tourism, EMS, Firefight	Multicopter / Lift + Cruise	Autonomous	2018 / 2021	2023 / -	China
Elroy Air	7.4	Cargo	Lift + Cruise	Autonomous	2023	2024	USA
Pipistrel (Textron)	7.2	Cargo	Lift + Cruise	Autonomous	2023	2024	USA
Vertical Aerospace	7.2	Air Taxi, Cargo, EMS	Vectored Thrust	Piloted	2022	2025	UK
Airbus	7.0	EMS, Tourism, Air Taxi	Multicopter	Piloted	2024	2026	France
Supernal	7.0	Air Taxi	Vectored Thrust	Piloted	2023	2028	South Korea
Lilium	6.8	Regional, Cargo, Biz Av	Vectored Thrust	Piloted	2024	2025	Germany

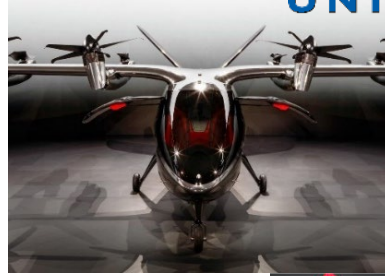
ADVANCED AIR MOBILITY (AAM)

 DELTA



 Joby

UNITED 



 ARCHER



 BETA

American Airlines 



 VERTICAL

FedEx 



 ELROY AIR

 BOEING

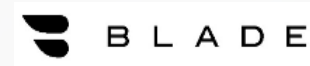


 wisker

- First electric vertical takeoff and landing (eVTOL) aircraft expected to be FAA certified in 2025
- New venture capital funded “disruptive” manufacturers backed by traditional operators
- Initial business cases
 - Air taxi (airport to city pair)
 - Cargo (small market to hubs)
 - Medical transport
- Initial operations look like traditional helicopter/GA piloted aircraft, but plan rapid shift to autonomous
- Unique, “ecosystem” should support vertiports, charging stations, routes, and automation.

AAM IN FLORIDA

Florida remains a target market for early AAM entry. Numerous OEMs are planning operations in Florida, including:



WHY RELY ON EXISTING AVIATION/AIRPORT INFRASTRUCTURE?

- Provides the public perception of “safe aviation”
- Meets spacing requirements and supports early air traffic integration
- Has terminal-like facilities and potential built in support businesses (FBOs)
- Proximity to business cases and “high” dollar users
- Multimodal connections



FDOT's APPROACH TO AAM

AAM Roadmap Document

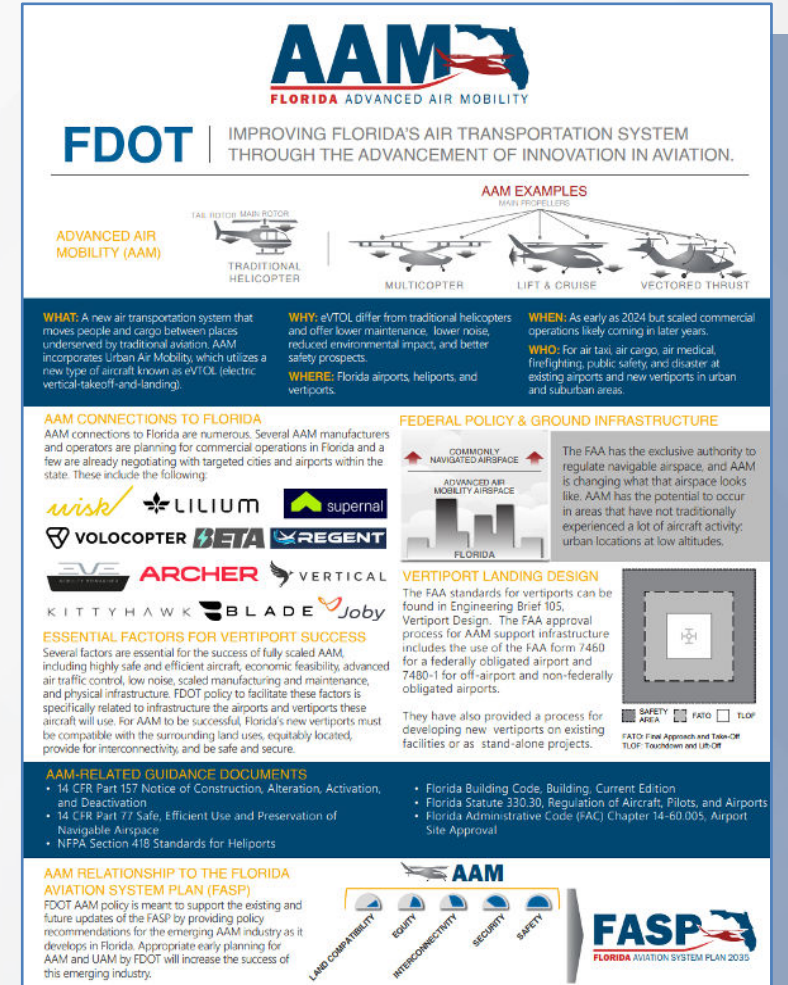
- AAM definitions and details
- Key stakeholders
- Guidance documents
- Timelines for certification
- Best practices for local government

Companion Document

- Recommendations, suggested changes, GAP analysis

Executive Summary

<https://www.fdot.gov/aviation/advanced-air-mobility>



AAM
FLORIDA ADVANCED AIR MOBILITY

FDOT | IMPROVING FLORIDA'S AIR TRANSPORTATION SYSTEM THROUGH THE ADVANCEMENT OF INNOVATION IN AVIATION.

ADVANCED AIR MOBILITY (AAM)

AAM EXAMPLES

TRADITIONAL HELICOPTER | MULTICOPTER | LIFT & CRUISE | VECTORED THRUST

WHAT: A new air transportation system that moves people and cargo between places underserved by traditional aviation. AAM incorporates Urban Air Mobility, which utilizes a new type of aircraft known as eVTOL (electric vertical-takeoff-and-landing).

WHY: eVTOL differ from traditional helicopters and offer lower maintenance, lower noise, reduced environmental impact, and better safety prospects.

WHERE: Florida airports, heliports, and vertiports.

WHEN: As early as 2024 but scaled commercial operations likely coming in later years.

WHO: For air taxi, air cargo, air medical, firefighting, public safety, and disaster at existing airports and new vertiports in urban and suburban areas.

AAM CONNECTIONS TO FLORIDA
AAM connections to Florida are numerous. Several AAM manufacturers and operators are planning for commercial operations in Florida and a few are already negotiating with targeted cities and airports within the state. These include the following:

FEDERAL POLICY & GROUND INFRASTRUCTURE
The FAA has the exclusive authority to regulate navigable airspace, and AAM is changing what that airspace looks like. AAM has the potential to occur in areas that have not traditionally experienced a lot of aircraft activity: urban locations at low altitudes.

VERTIPORT LANDING DESIGN
The FAA standards for vertiports can be found in Engineering Brief 105, Vertiport Design. The FAA approval process for AAM support infrastructure includes the use of the FAA form 7460 for a federally obligated airport and 7480-1 for off-airport and non-federally obligated airports.

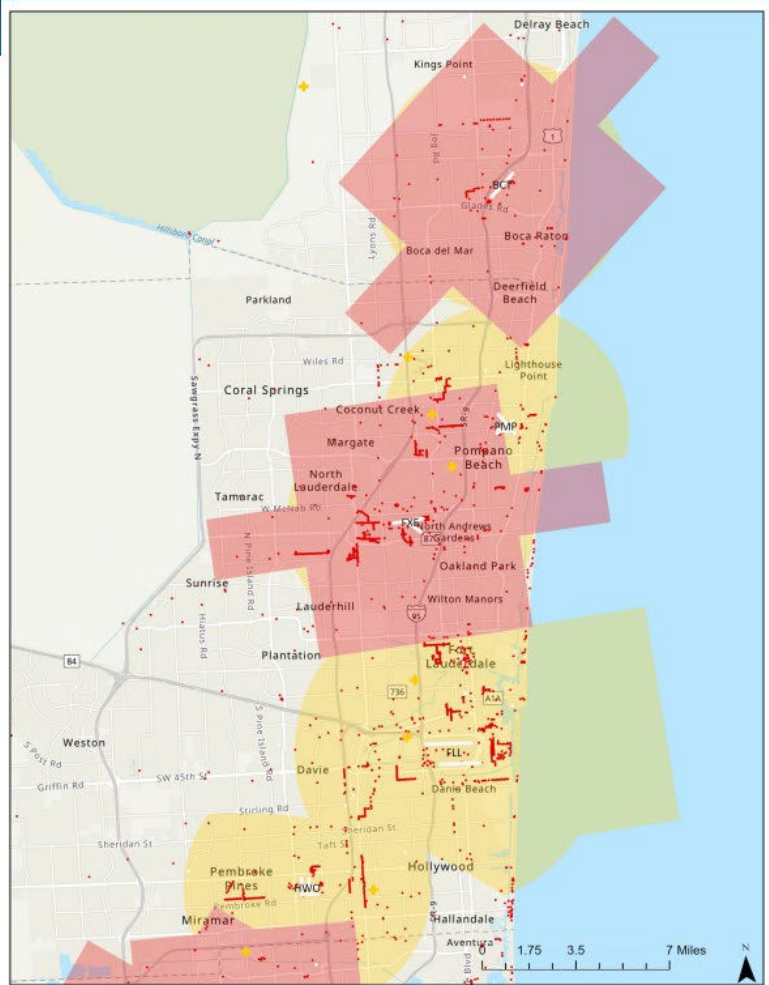
They have also provided a process for developing new vertiports on existing facilities or as stand-alone projects.

AAM-RELATED GUIDANCE DOCUMENTS

- 14 CFR Part 157 Notice of Construction, Alteration, Activation, and Deactivation
- 14 CFR Part 77 Safe, Efficient Use and Preservation of Navigable Airspace
- NFPA Section 418 Standards for Heliports
- Florida Building Code, Building, Current Edition
- Florida Statute 330.30, Regulation of Aircraft, Pilots, and Airports
- Florida Administrative Code (FAC) Chapter 14-60.005, Airport Site Approval

AAM RELATIONSHIP TO THE FLORIDA AVIATION SYSTEM PLAN (FASP)
FDOT AAM policy is meant to support the existing and future updates of the FASP by providing policy recommendations for the emerging AAM industry as it develops in Florida. Appropriate early planning for AAM and UAM by FDOT will increase the success of this emerging industry.

FASP
FLORIDA AVIATION SYSTEM PLAN 2030



Class B-E Airspace that begins at ground surface. Non-airport-sponsored vertiport development will require additional coordination

IAP Notification Area & Traffic Pattern. Non-airport-sponsored vertiport development will require additional coordination

Obstacles > 50 feet tall

Active Landfill

Runway/Heliport

FDOT AAM DOCUMENTS

Airport Compatibility Considerations

- Report was prepared for 31 public use airports
- Assists in identifying incompatible locations for vertiports relative to airports
- A starting point for how airports and communities should think about compatibility for vertiport development

AAM WORKING GROUP

Purpose

Assess and describe the current state of development of the AAM industry, specifically the deployment of eVTOL aircraft in Florida

Offer other comments and propose ideas that will be used to prepare a report which outlines policy and steps for integration that build on the work the FDOT Aviation Office has done thus far

Role

Act in a representative role for the AAM industry and its partners

Bring forward issues, concerns, and provide constructive input

WORKING GROUP REPORT

- **Focus Areas:**
 - Public Education and Community Engagement
 - Infrastructure and Zoning
 - System Planning and Access
 - Airspace and Safety
- **Categories**
 - Legislative
 - Regulatory
 - Advisory
 - Local Government



WORKING GROUP PARTICIPATION

- Working Group Members:
 - Airports
 - Cities
 - Operators
 - OEMs
 - State Agencies
 - FAA
- Four Statewide Meetings:
 - TPA, MCO, PBI, MIA



NEXT STEPS



AAM Phase III Launch

- Creation of an Implementation Plan
- Develop an Outreach Workplan



Public Education & Outreach

- Legislative Concerns
- Advisory Member Selection





THANK YOU



 www.fdot.gov/aviation

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CONTACT INFORMATION

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Miami-Dade Transportation
Planning Organization

URBAN AIR MOBILITY POLICY FRAMEWORK AND STRATEGIC ROADMAP

AILEEN BOUCLÉ, AICP, EXECUTIVE DIRECTOR
MIAMI DADE TPO

SEPTEMBER 7, 2023

Study Objectives

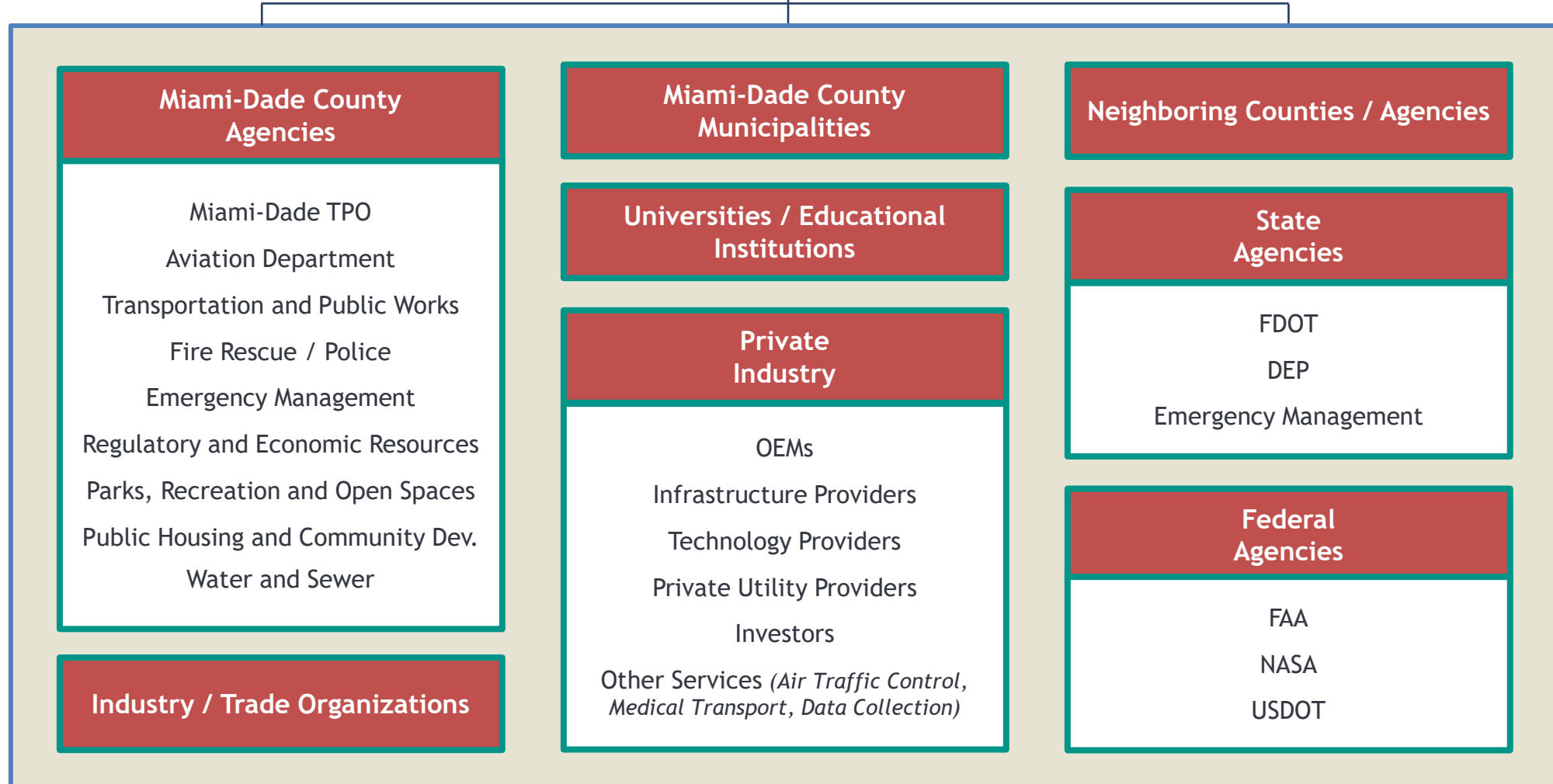
- ✓ Evaluate UAM technology to understand potential markets and impacts to existing transportation systems, environmental sustainability, and economic vitality.
- ✓ Identify infrastructure needs to accommodate an UAM ecosystem in Miami-Dade County.
- ✓ Assess policies and recommendations needed to prepare and integrate UAM into Miami-Dade County's existing transportation network.

STAKEHOLDER COORDINATION



Miami-Dade County
Office of the Mayor

Miami-Dade County
UAM Working Group



STAKEHOLDER ROLES AND RESPONSIBILITIES

Federal Agencies

Regulatory guidance and rulemaking, research and technology development, public-private engagement, infrastructure support

State Government

Policy development, infrastructure investment, workforce and economic development

County / Local Governments

Local planning and zoning, community engagement and educational outreach, local infrastructure investment, economic development, emergency response, coordination with other agencies

TPO

Regional transportation planning, coordination with other TPOs/MPOs

Private Industry

Initial infrastructure investment, technology development, safe and efficient operations, education

UAM Ecosystem



Aircraft

Vertical Takeoff and Landing (VTOL) aircraft generally include advanced propulsion systems, highly automated operating systems, and the potential for quieter and more efficient transportation within urban areas.



Vertiports

Dedicated areas for the landing/takeoff of VTOL aircraft. Vertiports are expected to be located at airports, on rooftops, and at ground level in both urban and suburban areas.



Energy Infrastructure

Three primary VTOL energy sources have emerged: lithium-ion batteries, hydrogen fuel cells, and hybrid-electric. Charging stations, electrical grid capacity, and hydrogen infrastructure are critical components of an UAM network.



Safety and Security

Federal guidance provides interim direction related to vertiport design and operational safety. Cybersecurity and compatible land use planning are also pertinent considerations.



Airspace

Initial VTOL operations will utilize existing helicopter routes and air traffic control (ATC) services. NASA and the FAA are developing airspace management technologies to provide routine airspace access for UAM operations.

UAM and 2045 LRTP

UAM policy and decision making must be consistent with Miami-Dade County's transportation goals.





Policy Framework Recommendations

Government: FAA Lead Agency

- State/Regional/Local/MPO: Pilot Projects/Funding/First/Last Mile network/LRTP
- *Potential for public engagement
- Facilitate incentive program for integrated equitable network
- Promote economic development
- Proof of Concept

Private Sector

- Technology Development/Identify infrastructure gaps for UAM integration
- Standardized infrastructure to support various aircraft types: electric, hybrid, and hydrogen-powered
- Development of designated UAM testing areas and facilities
- Proof of Concept

Public/Private Collaboration

- Statewide framework for Concept of Operations
- Identify additional partnerships in critical path to AAM roll-out
- Establish data sharing program with operators, OEMs, and other agencies
- Industry coordination under FAA leadership to develop all criteria and regulations

FUNDING OPPORTUNITIES

Cost responsibility
will depend on:

Location of facilities (on-/off-Airport) • Public or exclusive use • Facility owner/sponsor
OEM/operator business plan • Availability of public/private funding

Private Funding

- Infrastructure development for exclusive and/or shared use
- Initial private investment in exchange for operating profits
- Public-private partnerships (P3)
- Combination of cost-sharing models

Public Funding

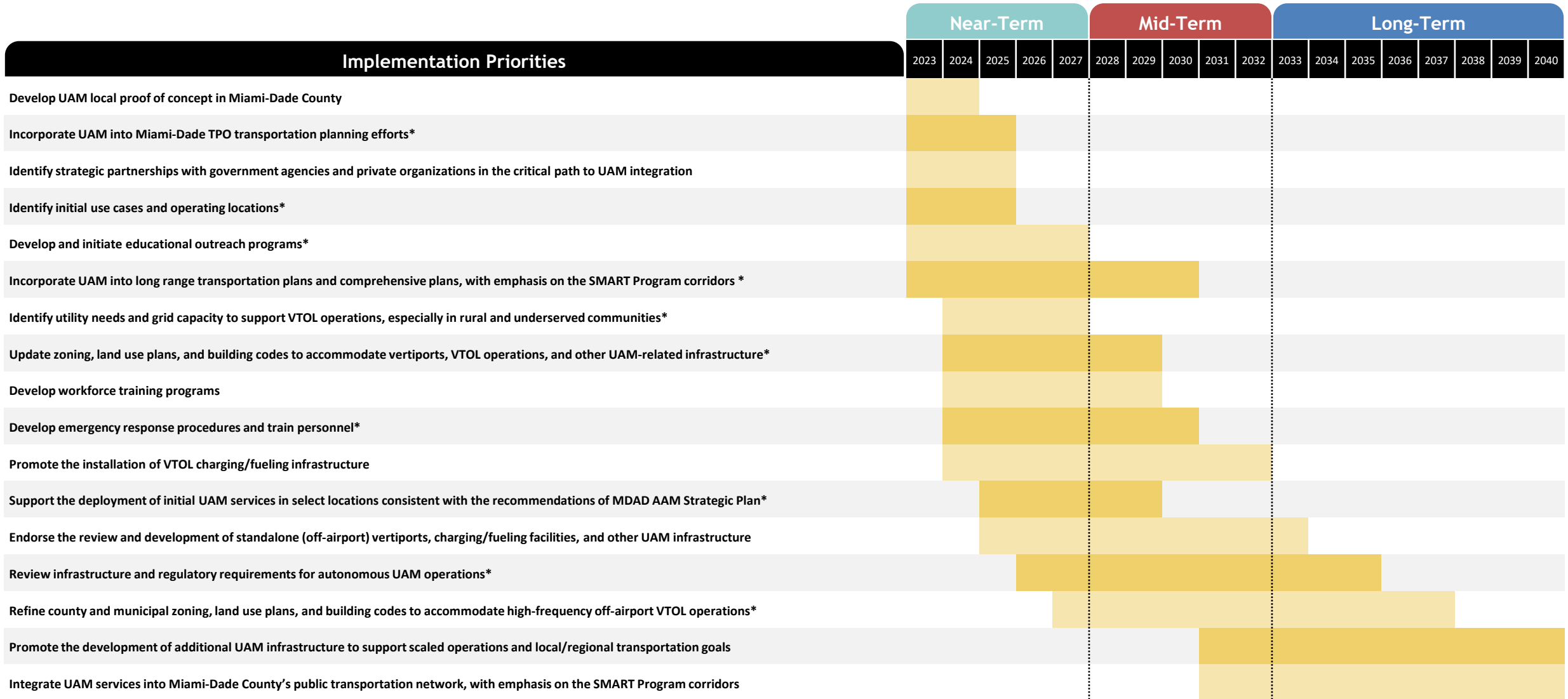
- Federal grants
 - » SMART Grants program
 - » Omnibus Appropriations Bill
 - » Airport Improvement Program - TBD
 - » FAA Reauthorization Bill - TBD
- State grants - TBD
- Local tax/development incentives
- Available land for vertiports

Operations and Maintenance

- Land/facility leases
- Landing fees
- Passenger fees
- Charging/fueling fees
- Combination of cost sharing models

It is expected that the initial investment for UAM development will be led by the private sector.

STRATEGIC ROADMAP



MIAMI-DADE TPO UAM INTERIM REPORT



Thank you!

AILEEN BOUCLÉ, AICP
EXECUTIVE DIRECTOR
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@miamidadetpo



Advanced Air Mobility

Florida Autonomous Vehicle Summit

Who we are

TAMPA INTERNATIONAL AIRPORT



Annual Passengers

23,448,336

(Projected for FY23)

Daily Average **64,242**

4 Airsides / 58 Gates



23,000

Approx. Parking Spaces



Highest Traffic Month

March

2,252,769

485,892,347

Pounds of Cargo

Calendar Year 2022



Lowest Traffic Month

September

1,336,353



66

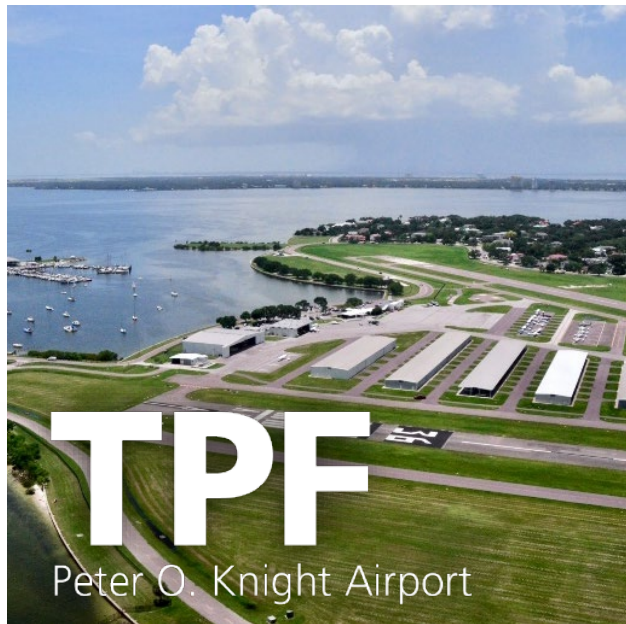
Shops and Restaurants

**3 General
Aviation Airports**

Peter O. Knight, Plant City,

Tampa Executive






TPF

Peter O. Knight Airport

Annual Operations

144K




Hangars

335



VDF

Tampa Executive Airport



Based Aircraft

357



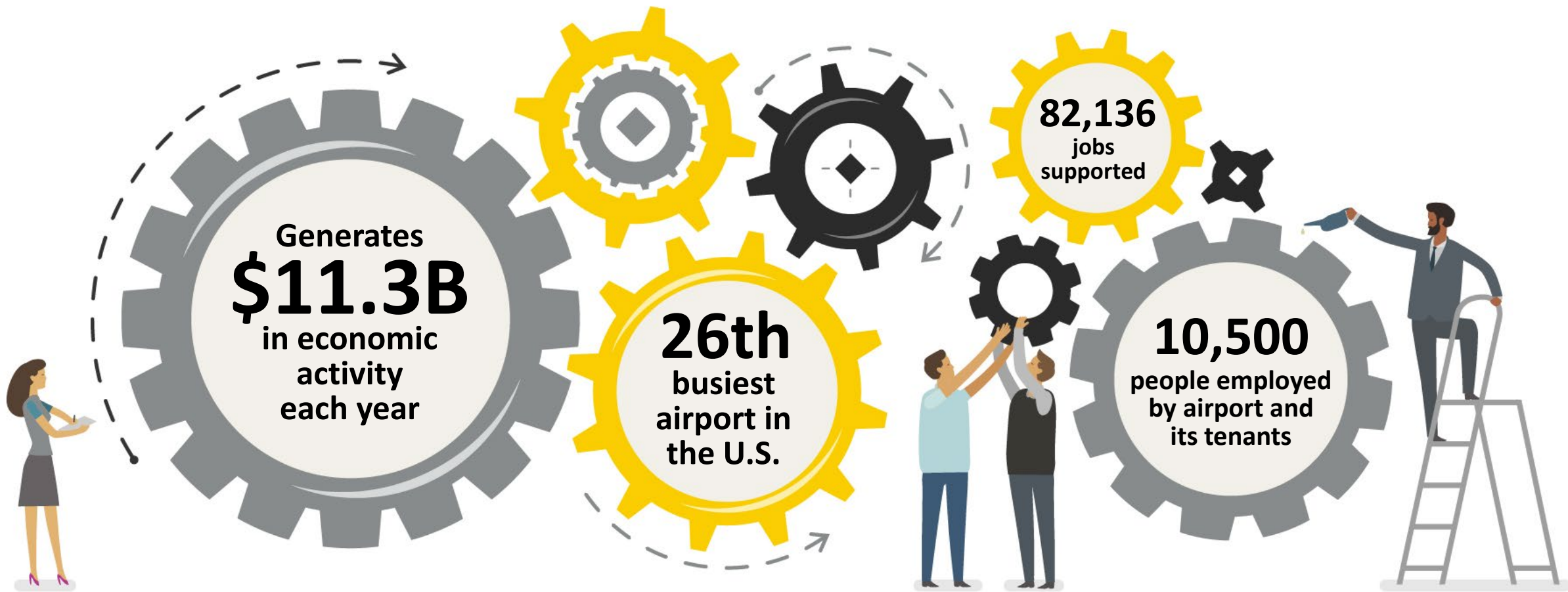
PCM

Plant City Airport



Economic Impact

\$563.4M



*Sources: FDOT Aviation Economic Impact Study 2022; FAA CY22 Enplanement Data

Advanced Air Mobility Efforts

Advanced Aviation Technology Committee

- **General Aviation** – Brett Fay, Chair
- **Govt. Relations** – Gina Evans Dew, Vice Chair
- **Operations** – Adam Bouchard
- **ARFF** – Chief
- **Real Estate** – Randy Forister
- **Legal Affairs** – Michael Kamprath
- **P & D** – Jeff Siddle
- **IT**- Christine Labutay



Advanced Air Mobility – AAM

2035 State/Local Market Outlook

- Florida
 - 480+ operating eVTOLS
 - 7800+ flights/day
 - 8.8M passengers/year
- Tampa
 - Approx 100 eVTOLS
 - 2M PAX/year
 - \$550M+ revenue



AAM Industry Day

Participants and Approach



- Aircraft manufacturers and developers

- 1-hour virtual meetings



- Dialogue

- Aircraft certification and operations
- Business models and leasing considerations
- Ideal locations and siting considerations
- Infrastructure and electrical needs



Skyports

ferrovial
vertiports

AAM Industry Day

Objectives

- Learn about the future of AAM through discussions with aircraft manufacturers and other stakeholders
- Identify future trends to inform the master planning process
- Understand potential market segments and unique airport operational needs



AAM Industry Day

Key Take-aways

- Infrastructure Requirements
- Vertiport Site Location
- Integration with Airport
- Use Case

Master Plan

Safe and Efficient Integration

- Protect the utility of the airports
 - Ensure the safe and efficient operation of the airport (FAA mandate)



Master Planning

- Updated every 5-10 years
- To identify future needs and development opportunities over a 20-year horizon
- AAM Master Plan Considerations
 - Site selection
 - Airspace and operations
 - Infrastructure and utilities
 - Community/stakeholder engagement



TPA Primary Use Cases

Passenger Transport

- Airport Transfer: Scheduled passenger service between the airport and several vertiports distributed within the west central Florida region
- Air Taxi: On-demand service between an on-airport vertiport and other vertiports within the Tampa urban area and/or Florida

Example: Archer Aviation (Midnight Aircraft)

- to purchase 100 aircraft
- Payload and Range: 1,000 lbs./100+ miles
- Entry into Service: 2025 (250 aircrafts to be delivered)
- Announced first route between Manhattan and EWR in November 2022



Cargo Transfer

- Mid-Range Transfer: Delivery of packages between on-airport cargo facilities and distribution warehouses
- Last Mile Delivery: Delivery of packages from on-airport cargo facilities to designated drop-off vertiports

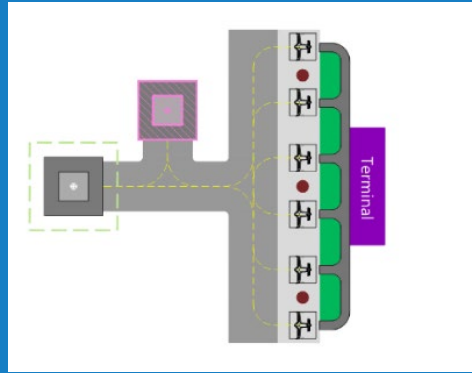
Example: Beta Technologies (Alia S250c/S250)

- Partnered with UPS; Option to purchase 150 aircraft
- Payload and Range: 1,400 lbs./250 miles
- Entry into Service: 2024 (10 aircrafts to be delivered)
- Designed to operate autonomously

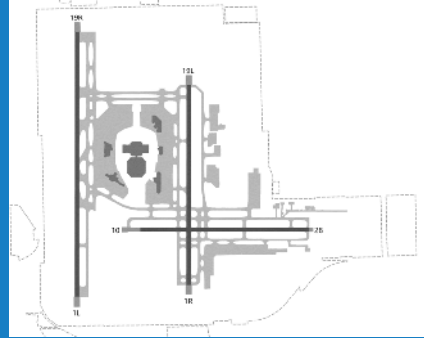


Drivers for Site Selection

Meets Facility Requirements



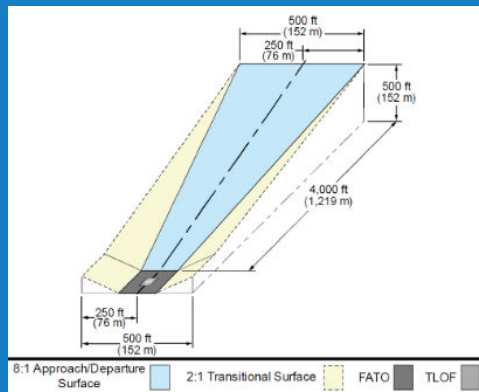
Impacts on Runway Throughput/ Airfield Capacity



Potential Wake Turbulence Impacts



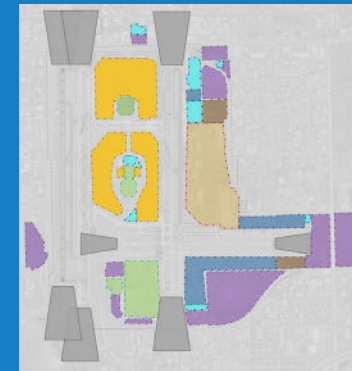
Potential Obstructions



Accessibility





Impacts to Existing and/or Future Land Uses

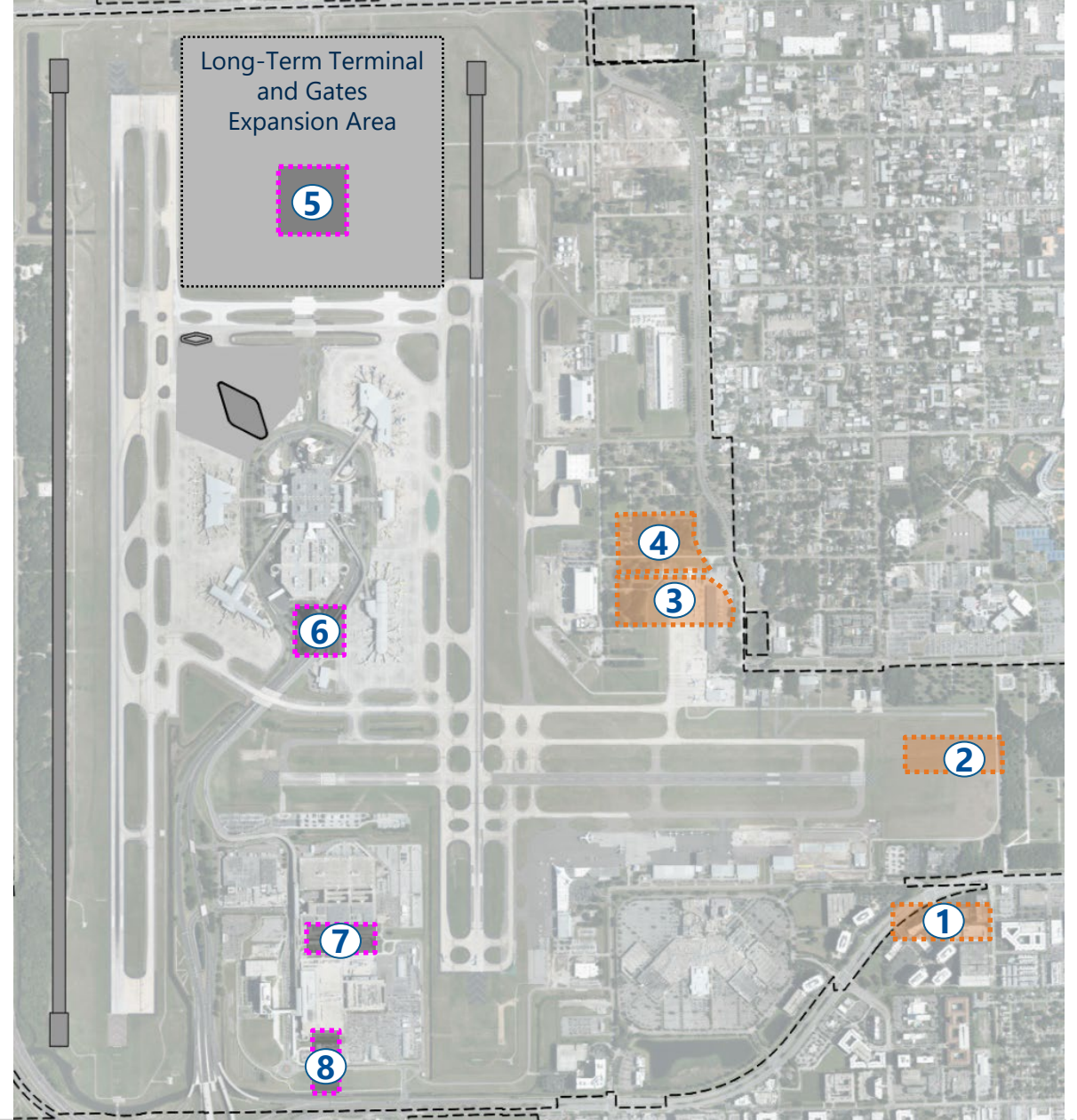


Potential AAM Sites

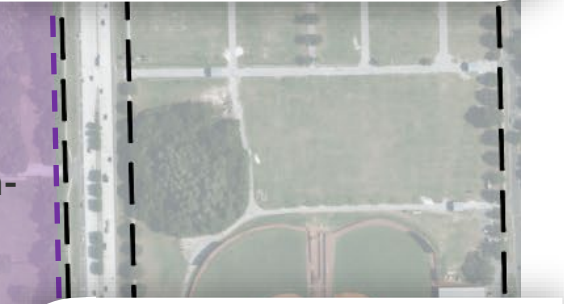
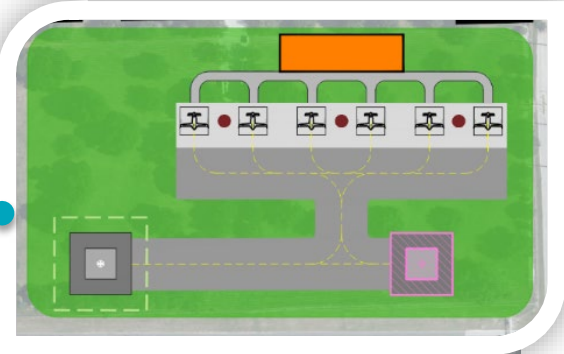
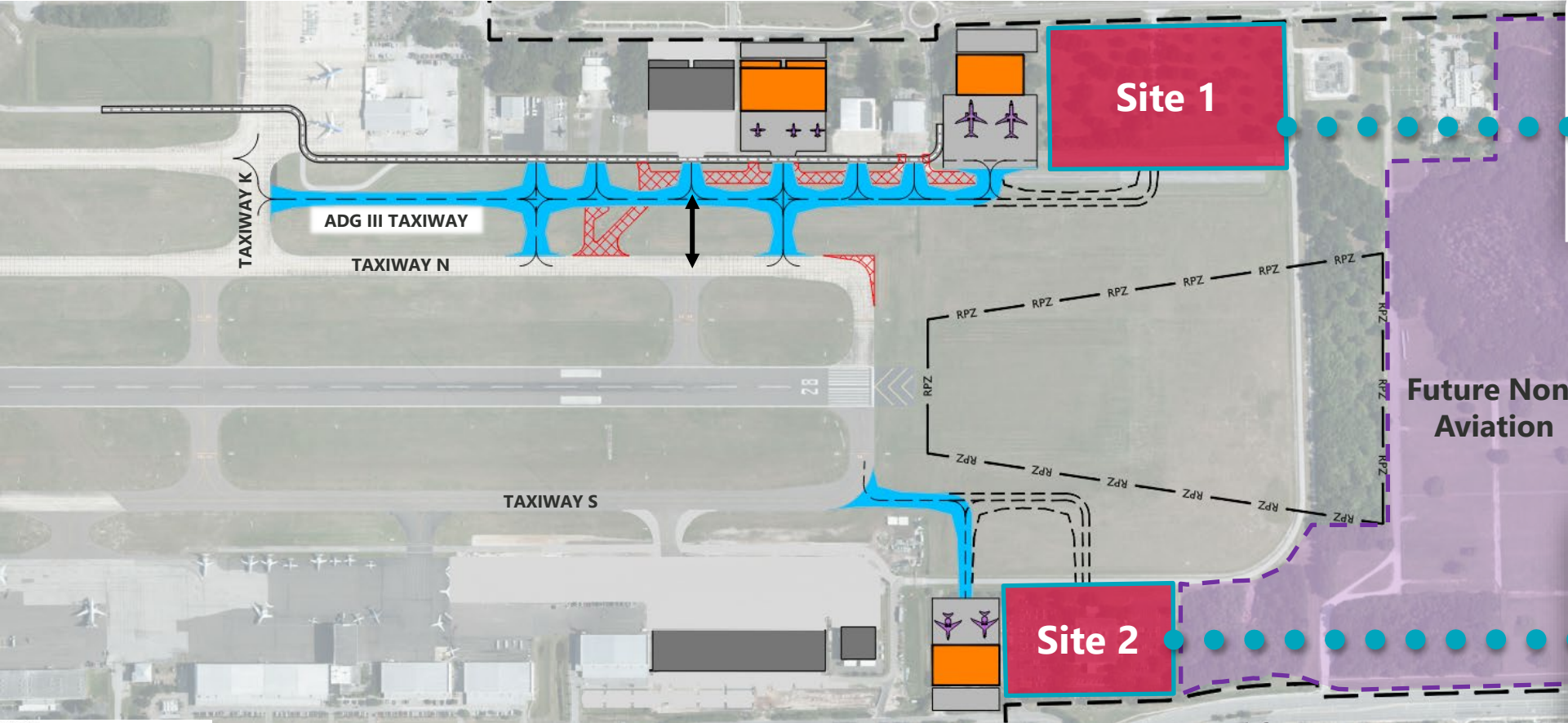
- ① Intersection of Jim Walter Blvd. and W. Columbus Dr. ✓
- ② Intersection of W. Tampa Bay Blvd. and Airport Service Rd. ✓
- ③ North of Ohio Ave. ✗
- ④ South of W. Dr. Martin Luther King Jr. Blvd. ✗
- ⑤ North Terminal Parking Garage ✗
- ⑥ Long-Term Parking Garage ✗
- ⑦ Economy Parking Garage ✗
- ⑧ Rental Car Center ✗

Legend:

-  Passenger Transport (Airport Transfer)
-  Passenger Transport (Air Taxi) or Air Cargo



Preferred Advanced Air Mobility Sites



- LEGEND
- - - D-V Not Lower Than 1 Mile RPZ
 - - - Taxiway/Taxilane Centerline
 - - - Property Line
 - Proposed Hangar
 - Proposed Pavement (Apron/Vehicle Parking)
 - Proposed Taxiway/Taxilane

Unanswered Questions

- Cybersecurity Concerns
- Passenger screening/transport
- Noise perception
- Equitable access



Advanced Air Mobility

Florida Autonomous Vehicle Summit



First Spin-off from EmbraerX

eVTOL and UATM projects incubated for four years within EmbraerX

Addressing a Massive Global TAM

Pure play focus on a \$0.76T revenue opportunity 2025E – 2040E ⁽¹⁾

NYSE Listed Company (EVEX) on May 10, 2022

2022 capital raise of \$377 million from strategic and financial investors

Clear Revenue Visibility

Largest order pipeline in AAM industry, with customers around the globe in all continents

Strategic Support from Embraer

Leveraging 50+ years of aviation experience and 30+ models certified

(1) Total addressable market ("TAM") estimate as per "Market for Urban Air Mobility" from KPMG dated June 2021 (includes passenger travel; excludes cargo, defense and emergency services).

VEHICLE DESIGN OPTIMIZED FOR URBAN MOBILITY

Flexible seating capacity

4 passengers at EIS with up to
6 in autonomous configurations

High utilization rate

Designed for **thousands** flight cycles per year with industry-leading reliability

100% Electric Vehicle

ZERO local carbon emissions

Tailored for urban mobility

100 km (60 mile) range at EIS
addresses 99% of UAM missions

Unmatched cost efficiency

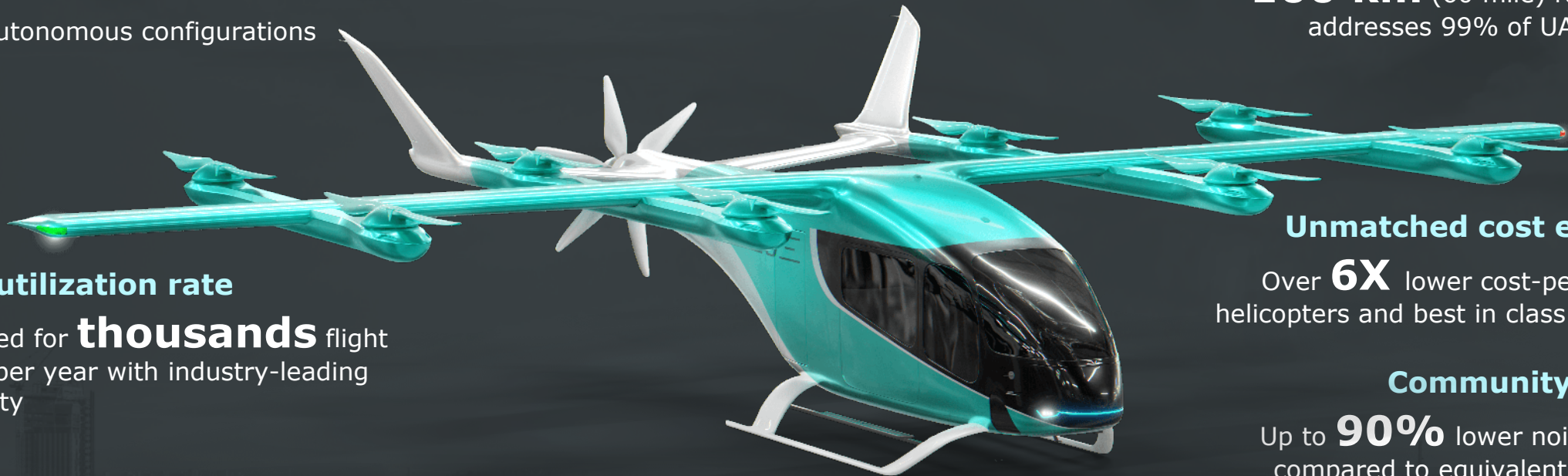
Over **6X** lower cost-per-seat than helicopters and best in class for eVTOLs

Community-friendly

Up to **90%** lower noise footprint compared to equivalent helicopters

Lift + Cruise design

Overhead wings with distributed rotors and rear propeller



Enabling AAM ecosystem by developing product and solutions that offer scalability and support

eVTOL Development

Designing, developing and certifying an electric vertical take-off and landing (eVTOL) vehicle

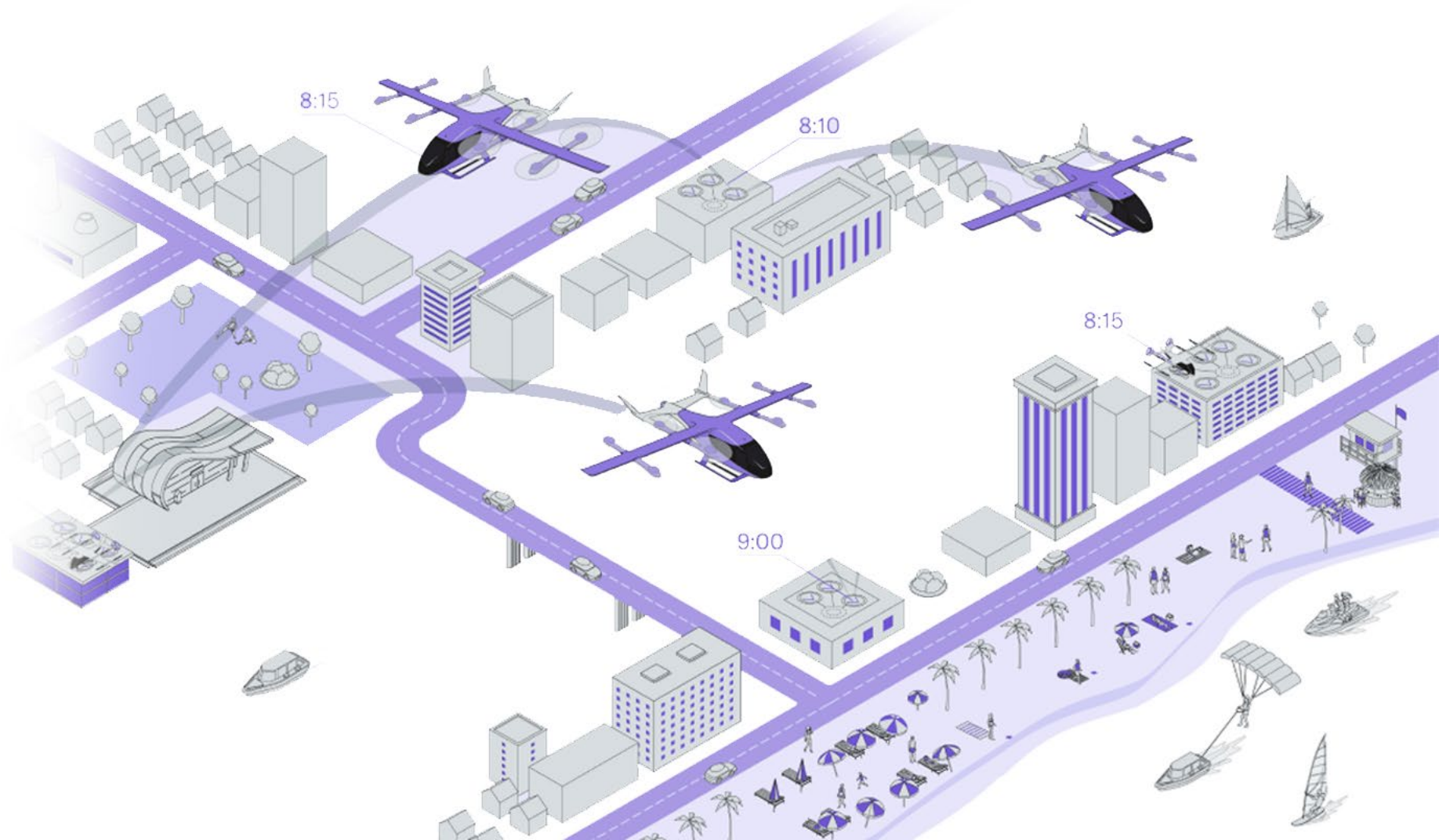
UAM Services

Fleet Operations: Provide UAM capacity on demand through a network of eVTOLs and strategic partners

Services & Support: Provide agnostic maintenance, support and training services to Eve and third-party aircraft

UATM

Developing a next-generation **Urban Air Traffic Management** that provides shared situational awareness and enables equitable airspace access



The Largest and Most Diversified Backlog in the Industry

Letters of Intent for up to

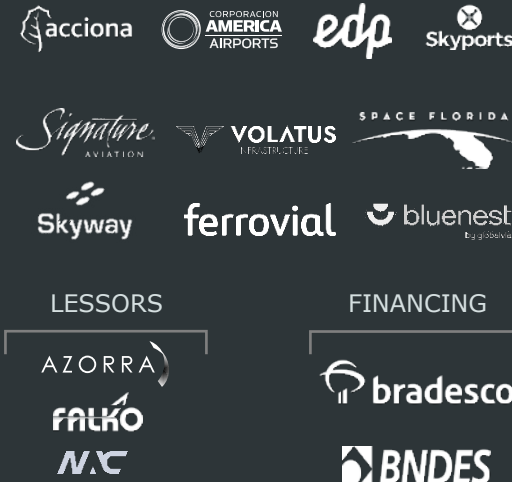
2,850
eVTOL AIRCRAFT

Strong partnership network

AIRCRAFT OPERATOR & RIDESHARING PLATFORM



INFRASTRUCTURE



TECHNOLOGY



EVE'S GLOBAL UAM ECOSYSTEM INITIATIVES



For an agnostic, integrated and equitable UAM ecosystem

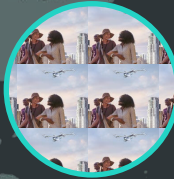
Chicago CONOPS & Simulation

Simulating passenger services and operational ecosystem in commuting



Miami UAM CONOPS

Understanding Passenger Experiences and eVTOL User Journeys to prepare for UAM implementation



Rio CONOPS & Simulation

Simulating passenger services and operational ecosystem in airport shuttle



UK CAA Regulatory Sandbox

Co-created solutions with ANSP to address regulatory barriers to airspace integration



Japan CONOPS

Understanding ground infrastructure and traffic management systems



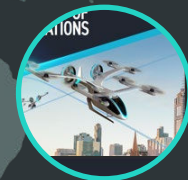
India Pilot Project

Supporting pilot project offering passenger services for commuting in Bengaluru



Australia UATM CONOPS

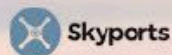
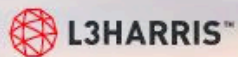
Developed and tested UATM CONOPS for airspace integration with Australia's ANSP



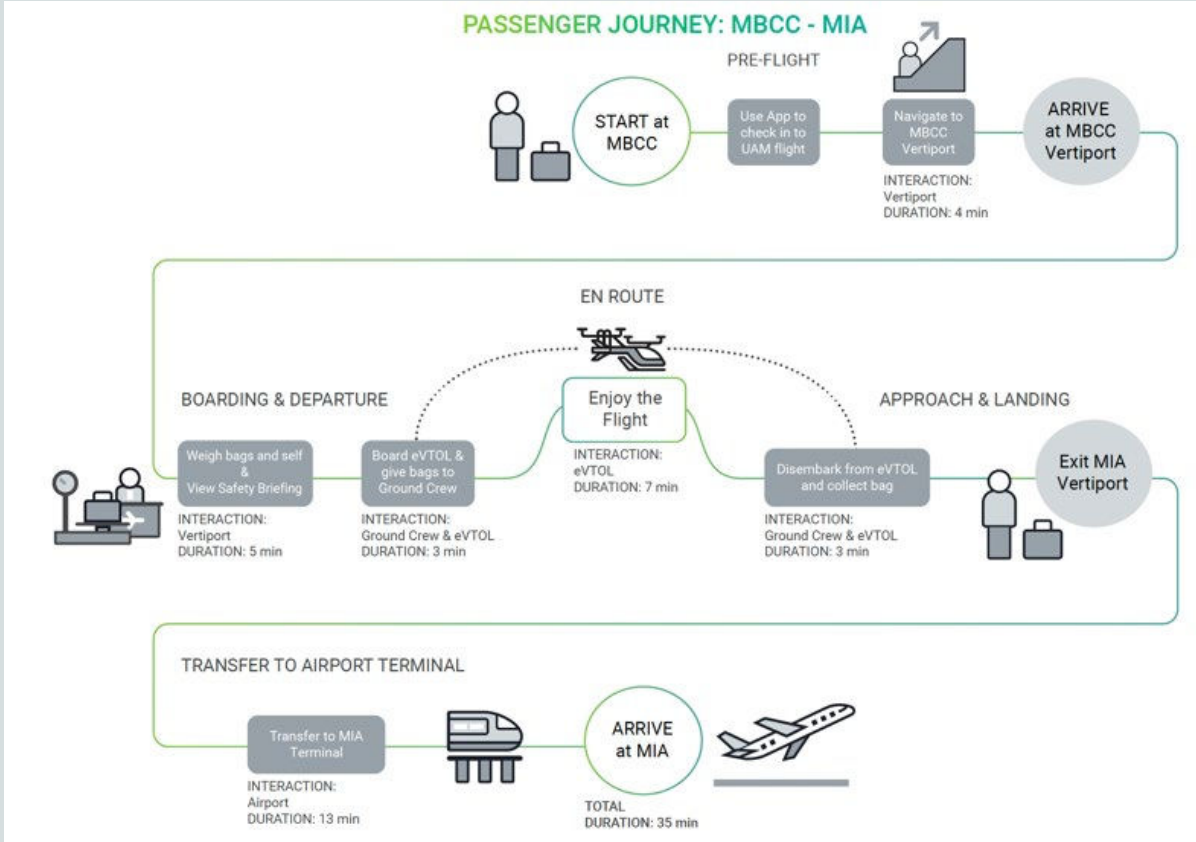
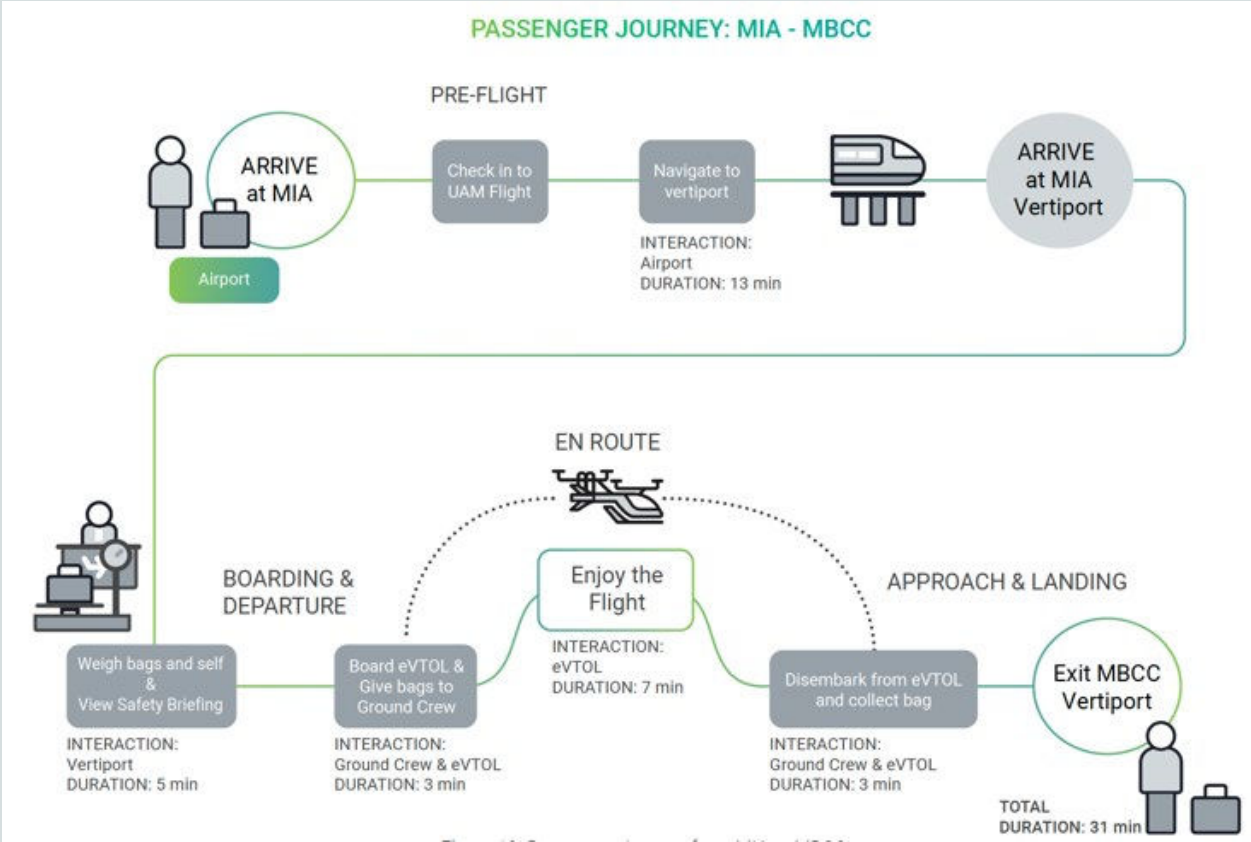
MIAMI-DADE AIR MOBILITY BLUEPRINT

Phase 1: An Ecosystem to Launch and Scale Urban Flights

DECEMBER 2021



Passenger Journey



Tasks

Touchpoints

Infrastructure

Technologies

Rules and Procedures









Pain Points

Challenges & Gaps

UAM Forecasts for Miami-Dade County



UAM IN MIAMI-DADE COUNTY IN 2035^c

-  **210** eVTOLs
-  **88** Routes
-  **32** Vertiports
-  **4 M** Annual Passengers
-  **\$191M** Annual Revenue
-  **\$84M** MD County Cumulative Revenue
-  **\$53,000** Average salary for direct UAM jobs
-  **6000+** Direct and Indirect Blue-and White-Collar Jobs

EVE CHICAGO XP

A NEW MOBILITY EXPERIENCE



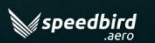
POWERED BY



SPONSORED BY



SUPPORTED BY



Eve Chicago XP

Period: September 12 - 30, 2022

Frequency: 8 flights per day

Prototype an operation and service touchpoints to understand how **Chicago area commuters** will experience a safe and sustainable Urban Air Mobility journey. Also, promoting UAM and creating brand awareness.

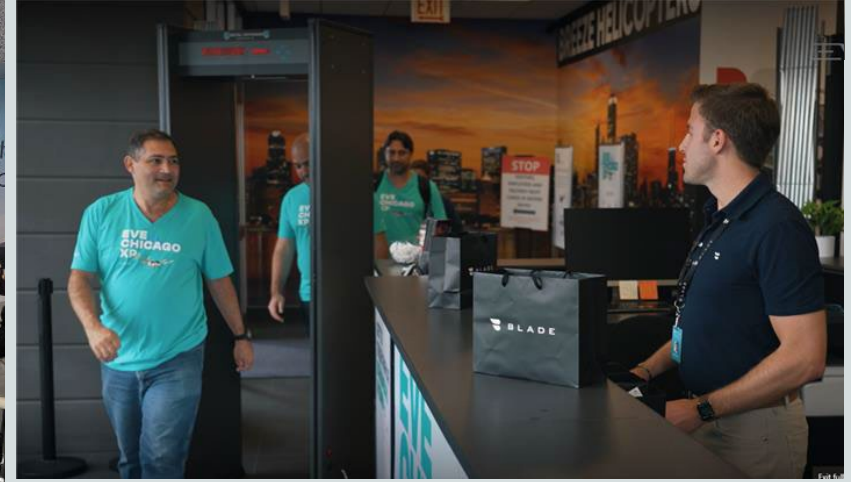
Main learning topics

- Passenger Journey (Pain points and benefits)
- Operation with multiple routes and different infrastructure scenarios
- Ground Handling Journey – Turn around Time (TAT)
- Identify operational characteristics of Chicago Airspace
- UATM tests

SCHAUMBURG

VERTI
PORT
CHICAGO

TINLEY
PARK



Vertistop: Smallest site with basic (or none) PAX holding areas. Minimal ground handling team to support and coordinate mobile rescue teams services. Nothing related to parts and GSEs.

Vertiport: Major site for both passenger and cargo boarding and disembarkation. Ground handling, line services and overnight tasks will be performed.

Vertihub: Largest site with enough space to store eVTOLs overnight and to serve as multimodal hubs, vertihubs will have significant maintenance, repair, and overhaul (MRO) services and could be a base for some operators.



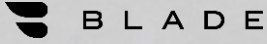
Skyports

Unlocking the skies for Advanced Air Mobility

DEPARTURES: 

18:00	- PALM JUMEIRAH	G1
18:05	- DUBAI MARINA	G2
18:07	- DUBAI DOWNTOWN	G3

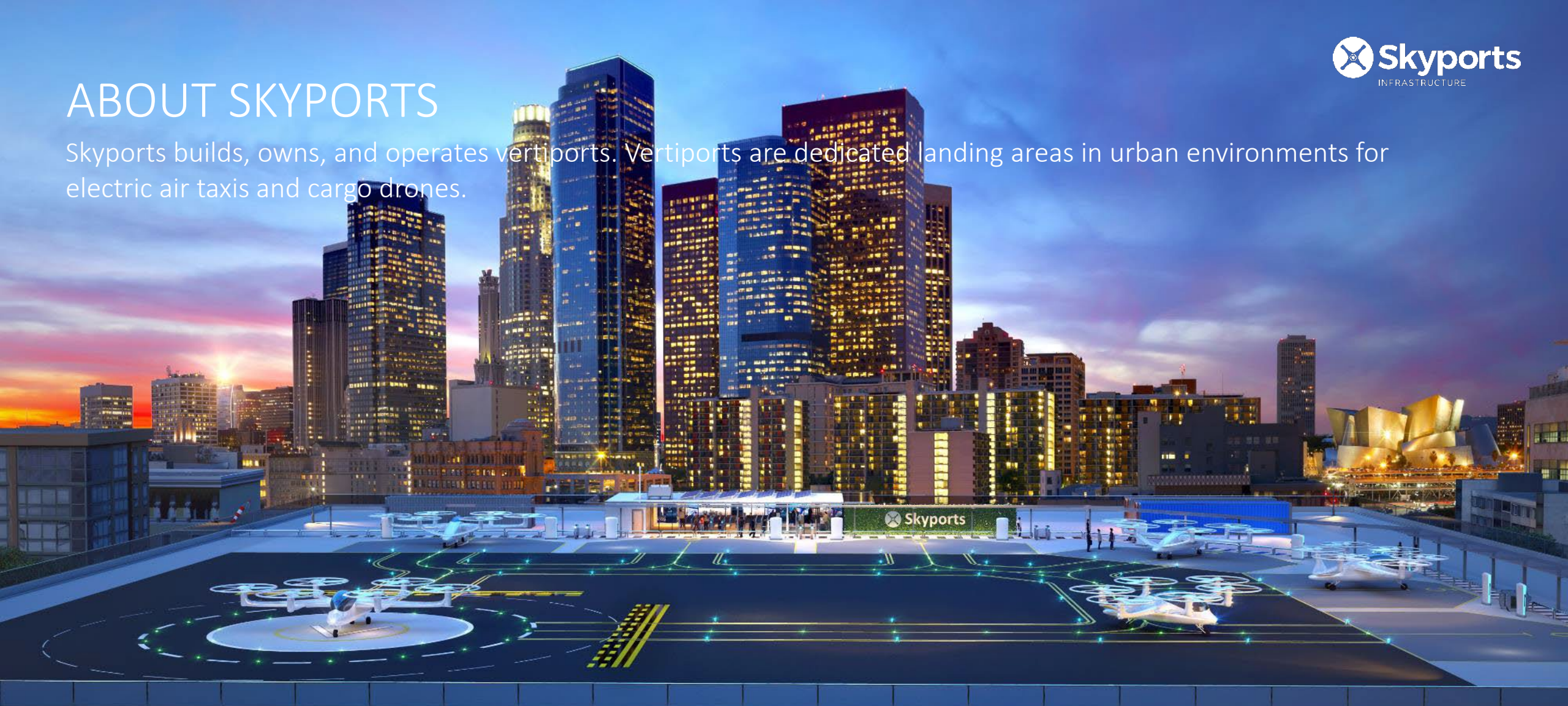
The industry is accelerating – more than \$7.5B committed to OEMs and operators over last 12 months

	CAPITAL RAISED (\$M)	KEY INVESTORS / PARTNERS	
 Joby	\$1,100	BlackRock	Uber
 ARCHER	\$860	 MUBADALA	 UNITED AIRLINES
 LILIUM	\$580	BlackRock	ferrovial
 BLADE	\$365	AIRBUS	 LionTree
 VERTICAL	\$300	American Airlines	virgin atlantic
 EVE MOBILITY RE-IMAGINED	\$542	 EMBRAER	
 wisk	\$450	 BOEING	
 VOLOCOPTER	\$400	BlackRock	Continental
 BETA	\$368	 United Therapeutics	amazon

Publicly listed companies as of July 2023

ABOUT SKYPORTS

Skyports builds, owns, and operates vertiports. Vertiports are dedicated landing areas in urban environments for electric air taxis and cargo drones.



Our investors:



Our investors:



OUR REGULATORY EXPERTISE – ROLES (US)

Skyports is an active and leading participant, and influencer in the development of international regulatory frameworks for AAM

Market	Activity	Organisations
North America	<p><u>Infrastructure and Aviation</u></p> <ul data-bbox="392 464 1775 728" style="list-style-type: none"> • Member, General Aviation Manufacturer's Association, Electric Propulsion & Innovation Committee (EPIC) & Chair of the EPIC Infrastructure Sub-Committee • Member, FAA Advanced Aviation Advisory Committee Task Group 13 (AAM) • Member, National Association of State Aviation Officials • World Business Partner, Airports Council International 	
	<p><u>Fire Protection</u></p> <ul data-bbox="392 806 1600 906" style="list-style-type: none"> • Member, National Fire Protection Association, 418 Vertiport Working Group • Member, Aircraft Rescue Fire Fighting Working Group, UAM Committee 	
	<p><u>Security</u></p> <ul data-bbox="392 985 1775 1071" style="list-style-type: none"> • Member, TSA, Aviation Security Advisory Committee, General Aviation Subcommittee's, AAM Working Group 	
	<p><u>Florida</u></p> <ul data-bbox="392 1149 1113 1316" style="list-style-type: none"> • Member, FDOT AAM Working Group • Member, Miami-Dade AAM Working Group • Member, City of Miami Working Group 	

PASSENGER VERTIPOINT FEATURES

The main features of a vehicle-agnostic passenger vertiport are landing areas, aircraft stands, recharging and turnaround equipment, passenger terminal, control room and safety and security facilities.

