



WHAT IS ADVANCED AIR MOBILITY?

FREQUENTLY ASKED QUESTIONS

SOURCE: WISK AERO



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[HTTPS://WWW.FDOT.GOV/AVIATION/ADVANCED-AIR-MOBILITY](https://www.fdot.gov/aviation/advanced-air-mobility)

WHAT IS ADVANCED AIR MOBILITY (AAM)?

AAM is an air-based transportation system utilizing novel technologies including electric vertical take-off and landing (eVTOL) aircraft to carry passengers, cargo, or provide services in an urban or regional setting. These aircraft will purportedly be quieter and simpler to maintain than helicopters, which will enable use cases like urban air taxis, simplified air cargo operations, and less expensive air-based emergency services. In addition to eVTOL aircraft, AAM includes electric aircraft that takeoff and land using runways like conventional aircraft and other innovative aircraft.

HOW IS FLORIDA PREPARING FOR AAM?

Florida has developed and implemented a comprehensive program to establish itself as a leader in AAM. This includes strategic planning, an advisory committee, and an implementation plan to integrate AAM into the state's transportation system. Additionally, FDOT has published the AAM Land Use Compatibility and Site Approval Guidebook in 2024 and is hosting local government trainings on AAM across the state in 2025.

WHAT ARE THE APPLICATIONS FOR AAM?

AAM applications include passenger-carrying operations to provide faster alternatives to ground transportation, cargo-carrying operations that cover middle mile logistics, lower cost public/emergency services, and private/recreational flying.

WHAT ARE THE BENEFITS OF AAM?

AAM will provide additional transportation options for urban, suburban, and rural environments. Some of these benefits may include reduced travel time between regional destinations, improved air cargo efficiency, and lower cost public services.



HOW DOES AAM BENEFIT BOTH URBAN AND RURAL AREAS?

AAM benefits both urban and rural areas by providing faster and more efficient transportation options. Operations may begin in more urban environments to provide reduced road congestion and provide quicker travel times in cities with heavy traffic. In rural areas, AAM can improve connectivity to urban centers, making it easier for residents to access essential services and opportunities. Additionally, AAM can support public services such as medical transportation and emergency services, which are particularly valuable in rural communities.

WILL AAM BE AFFORDABLE FOR ALL FLORIDIANS OR ANOTHER SERVICE FOR THE ELITE?

The affordability of AAM is crucial for its widespread adoption. Some AAM applications, like air taxi services may begin as a more expensive service and decrease in cost as the economies of scale enable more widespread use that complements existing modes of transportation. In other instances, like air cargo, eVTOL aircraft may improve the efficiency of existing routes, the benefits of which could be passed onto the consumer in the form of cheaper or faster shipping.

WHAT IS A VERTIPORT?

A vertiport is a subcategory of a heliport. It shares many of the same characteristics as a traditional heliport but is specifically designed to accommodate eVTOL aircraft. At a minimum, it consists of a landing pad for the aircraft, but may also include additional aircraft parking stands, a terminal, aircraft chargers, and auto parking. The footprint of a vertiport could range from less than one acre, if it consists of a single pad, up to five or more acres if the vertiport has additional landing pads, parking positions, and a terminal.

WHAT IS AN EVTOL AIRCRAFT?

An eVTOL aircraft is a type of electric aircraft that can take off, hover, and land vertically, like a helicopter. Unlike helicopters, which rely solely on rotating blades for lift and propulsion, powered-lift aircraft, including eVTOL aircraft, use their propellers to takeoff before using wings for lift during horizontal flight. Most of these aircraft being developed use lithium-ion batteries to power electric motors, and some in the industry are working on hybrid-electric or hydrogen fuel designs.

ARE EVTOL AIRCRAFT SAFE?

Yes, the FAA is responsible for aircraft certification and ensures the highest degree of safety for all aircraft, including eVTOL aircraft. To operate commercially, these aircraft must pass rigorous design tests and receive approval for their production facilities to ensure all aircraft meet the quality standards approved by the FAA. Additionally, the FAA certifies operators and individual pilots in line with federal aviation regulations. FDOT is responsible for vertiport site approval, sets minimum requirements for these facilities, and inspects all public use vertiports.

WHEN WILL EVTOL AIRCRAFT START OPERATING?

Operators plan to begin service in 2027, with full deployment expected by 2029 or later. Leading manufacturers are working their way through the FAA's aircraft certification process.

HOW NOISY WILL THEY BE?

eVTOL aircraft are designed to be quieter than traditional helicopters. Early research suggests that eVTOL aircraft produce lower noise levels, but more research is being conducted to confirm these findings. AAM's goal is to minimize noise pollution and ensure that AAM operations are compatible with urban and suburban environments.



WILL EVTOL AIRCRAFT AFFECT MY PRIVACY?

Unlike small drones, which typically fly below 400 feet, eVTOL aircraft will reach cruising altitudes more similar to, and often higher, than existing helicopter routes today. Additionally, eVTOL aircraft must take-off and land at approved landing sites, unlike small drones that can take-off and land without an approved landing area. Once the eVTOL aircraft is in the air, it will be subject to the same rules and regulations as a traditional aircraft is today.

HOW MUCH POWER DOES IT TAKE TO CHARGE AN EVTOL AIRCRAFT?

There is no single charging standard for eVTOL aircraft, but most industry players intend to use the combined charging standard (CCS), the same charging standard widely used for electric vehicles (EVs) today. With the current technology, these chargers can provide power up to 350kW. The Megawatt Charging System (MCS) is in development and would allow for faster charging speeds using more power.

WHERE WILL EVTOL AIRCRAFT OPERATE?

Vertiports may be sited on rooftops, parking garages, hospitals, and other sites in accordance with local zoning policies. eVTOLs may only takeoff or land at sites that have undergone local, federal, and state review and that have been approved and are licensed or registered with FDOT. The cruise segment of eVTOL aircraft flight is expected to happen between 1,000 - 3,000 feet.

WILL AAM POSITIVELY IMPACT THE LOCAL ECONOMY?

Yes, AAM is expected to have a positive impact on the local economy. It can create jobs in various sectors, including engineering, manufacturing, and vertiport operations. AAM can also drive the movement of people and goods to support increased tourism, more efficient cargo and public services, and drive more traffic to underutilized general aviation airports.

WHY IS THE INDUSTRY SO EXCITED ABOUT THE FLORIDA MARKET?

FDOT has taken a proactive and leading role to foster AAM in the state by engaging stakeholders and creating plans to integrate AAM in the state. Florida's warm and sunny weather is favorable for flying, and the state boasts a diverse range of dense cities and rural areas. Challenges with connecting these areas via ground transportation means opportunities for connecting them by air. Furthermore, Florida's large geographic size and substantial population means there is a significant market for early entrants.

WHAT IS NEXT FOR AAM AS IT RELATES TO PUBLIC INFRASTRUCTURE?

FDOT along with Airports are taking steps to prepare their infrastructure for AAM, whether that means conducting studies to determine how to best accommodate AAM or preparing electric utilities and installing chargers for these aircraft. Additionally, FDOT's AAM Land Use Compatibility and Site Approval Guidebook was published in September 2024 and provides significant guidance for our local governments to determine steps they can take to prepare their infrastructure for AAM, including proactive planning steps with utilities and land use considerations.

