

20th Electric Aircraft Symposium, Oshkosh WI USA - July 18-19, 2026

The **Vertical Mobility Economy** and the \$16.6 Billion Infrastructure Gap

Advanced Air Mobility is nearly ready to fly.
Will infrastructure affordably deliver AAM's full promise?

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UAM Geomatics, Inc.
A NEXA Capital Company

NEXA/UAMGEO AAM Infrastructure Business Cases

The State of Virginia



NEXA and UAM Geomatics Forecasted demand, infrastructure, job creation and much more under contract from VIPC

The State of Ohio ODOT



Teaming with CCG, NEXA and UAMG provided estimates for vertiport infrastructure as well as Air Traffic Control equipment along with demand and an EIA report

The State of Arkansas



Working for the Walton Family Foundation, NEXA and UAMG was tasked with forecasting the impact of AAM on the state and the economic impact it could have.

The State of North Carolina NCDOT



Alongside HNTB, UAMG has been forecasting the demand and infrastructure required for AAM operations in Oklahoma.

U.S. General Aviation Aircraft Manufacturer



One of America's largest suppliers, NEXA and UAM Geomatics provided long term forecasting of demand for general aviation aircraft serving existing airport networks.

The Kingdom of Saudi Arabia - GACA



NEXA/UAMG teamed with AT Kearney to forecast the impact of AAM and estimate the infrastructure and policy requirements to begin operations

The State of Mass. MASSDOT



Alongside Woolpert, UAMG is now forecasting the demand and infrastructure required for AAM operations in Massachusetts state-wide.

The State of Oklahoma ODOT



Alongside HNTB, NEXA and UAMG forecasted the passenger demand and infrastructure required for AAM operations in Oklahoma.

The State of Utah UDOT



Alongside NUAIR, UAMG has been forecasting the demand and infrastructure required for AAM operations in Utah state-wide.

The State of Maine MDOT



Alongside HNTB, UAMG has been forecasting the demand and infrastructure required for AAM operations in Maine State-wide.

Vancouver BC AAM Planning



Vancouver within the Cascadia Corridor will be Washington State's most important transportation node, and Helijet already services over 100,000 passengers

Australia Brisbane Olympics Planning



Together with a Washington State OEM, NEXA and UAM Geomatics developed demand estimates and infrastructure costs.

- GIS Mapping
- Passenger/Cargo Demand
- Business Case Viability
- Social Use Cases
- Jobs and GDP Growth

WHY

Airspace below 5,000 feet is the World's next economic frontier.

Move People

Airport shuttles · Urban air taxis ·
Regional mobility

Move Cargo

Logistics · Medical delivery ·
E-commerce

Public Safety

Emergency response · Surveillance ·
Safety and National Security

The Vertical Mobility Economy (VME) unlocks a \$330+ billion U.S. economic opportunity.

Take away: The Vertical Mobility Economy only **exists** if new infrastructure **exists**.

WHY NOW

The aircraft are nearly certified. The FAA's eIPP program has launched.



What's Ready

- Aircraft certification programs advancing to conclusion in 2026-2028
- FAA eIPP launched across multiple U.S. regions
- Regulatory frameworks rapidly evolving
- Industry investment & operator readiness building



What's Missing

- Urban vertiport networks at scale
- Airport AAM facilities
- Charging & energy infrastructure
- Urban air traffic management systems
- Part 135 operators and fleets
- **\$16.6B in capital investment**

*Take away: Without **URBAN** infrastructure, AAM stays grounded.*

HOW MUCH

The infrastructure price tag for a national
AAM network:

\$16.6B

in infrastructure CAPEX investment through 2045

across 62 U.S. metro areas · ~60% of the national population

\$11.2B

Ground Infrastructure

Vertiports · Charging · Utilities · Terminals

\$5.4B

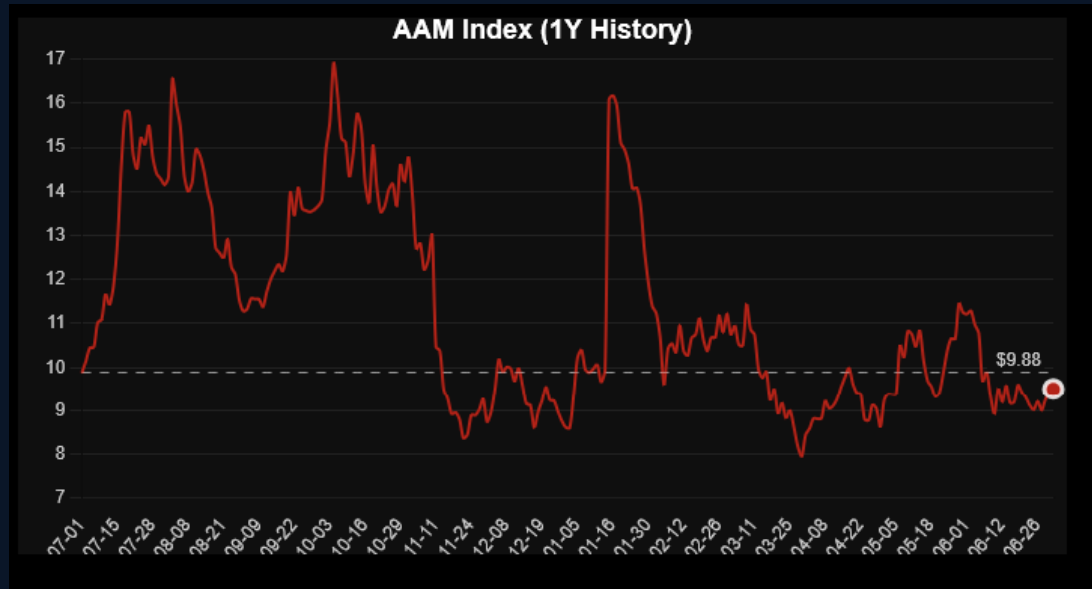
Air Traffic Management

Surveillance · Comms · Airspace Systems

Take away: 2,570+ vertiports · 62 markets · 20+ year buildout

OEM Readiness?

7 publicly traded eVTOL OEMs we can track currently fall short of promised growth



- Joby, Beta, Archer, Eve, Vertical, Horizon and eHang
- Index tracking ~\$15 billion in vehicle investment since 2012
- Current AAM index values:
 - \$9.50 spot value
 - Drop of 13.5% month to month
- Most exhibit weak balance sheets and cannot support infrastructure investment

<https://www.uamgeo.com/aam-index>

Take away: OEMs *DO NOT* have capital to support AAM infrastructure rollout

HOW

Two thirds of the AAM market is **URBAN**:

Ground Infrastructure \$11.2B

600 Unserved vertiports (\$1.5–2.2M each)

350 Served vertiports (\$2.8–3.8M each)

150 Urban multiports (\$17–23M each)

60 Airport multiports (\$55–68M each)

+ Charging, utilities, surface connections

Airspace & Traffic Mgmt \$5.4B

- Dense digital surveillance, weather & comms
- Urban ATC procedures & integration
- Network management & route sequencing
- Data infrastructure for multi-vertiport ops
- Autonomous eVTOL traffic management

*Take away: Profitability depends on utilization. High utilization **depends** on URBAN infrastructure.*

HOW: WHERE

Start in the Urban MSAs. Build outward.



High-Value Trips

Airport transfers, business travel, medical — willingness to pay is highest in dense metros.



Operational Density

Urban traffic creates the recurring routes and frequency operators need for fleet efficiency.



Network Effects

Each new vertiport multiplies the value of every other. More nodes = more O-D pairs = more revenue.



Investor Confidence

Profitable urban corridors will prove the model, unlocking capital for national expansion.

*Take away: The 62 markets in this study represent the geographic platform for a **national AAM network**.*

Neither government nor private industry can do this alone.



Public Sector

- Planning & zoning
- Environmental studies
- Utility coordination
- Regulation and harmonization
- Federal loan guarantees
- Private Activity Bonds

→ Industrial Consortium

- CAPEX developers and integrators
- Low altitude ATC providers
- OEMs and Part 135 operators



Private Investment

- CAPEX phased for expansion
- Business case and bond securitization
- Network operations
- Operator investment
- Airport & utility partners
- Cities & state agencies

Public-Private Partnership

Take away: \$16.6B can modernize a single U.S. airport, instead builds a **nationwide** mobility network.

WHAT

What we get when finally built:

\$210B+

62 MSA Operator revenue
opportunity over 20 years

Regional, shuttle, air taxi, biz, medical

\$330B+

Total MSA/CSA economic
impact (VME)

Across 62 U.S. metro areas

7

Revenue-generating
use cases

*Including cargo & drone (not counted
above)*

 Regional Air Mobility ·  Medical Transport ·  On-Demand Air Taxi ·  Business Aviation ·  Airport Shuttle

Infrastructure CAPEX is market-enabling capital — not a cost to be minimized.

AAM Infrastructure can be profitable

	Innovation	What it is	Major benefit	Revenue/Cost Recovery Potential
1	1. Vented / porous vertipad surfaces	Skyportz is promoting a provisionally patented vertipad/"Aeroberm" concept aimed at enabling modular landing sites and addressing the landing-network bottleneck; its public materials frame the invention as infrastructure that can unlock urban landing locations rather than relying only on conventional heliport-style pads.	Reduces the urban-site constraint. If vented surfaces can better manage rotor downwash and ground effects in dense settings, more rooftops, parking structures, and infill sites become feasible vertiport candidates. That expands supply of premium landing locations.	HIGH
2	2. Hyperlocal weather sensor networks for vertiports	TruWeather publicly describes an AAM weather stack that combines SaaS with ground-based sensors and micro-weather stations to deliver real-time, hyperlocal weather intelligence for advanced air mobility operations.	Improves dispatch reliability and usable operating hours. For urban vertiports, localized wind, gust, ceiling, and microclimate conditions can be operationally decisive; better real-time weather intelligence should reduce unnecessary cancellations and support safer, more efficient utilization.	HIGH
3	3. Compact radar + camera airspace security layer	Fortem markets a stack built around compact ground-based AESA radars, camera systems, and software for 3D detection, tracking, and classification, and says it is "laying the groundwork for AAM." Its materials emphasize 360° coverage, AI-enabled radar, and deployment at airports and infrastructure sites.	Creates the safety/security envelope around vertiports. The big benefit is early detection of unauthorized drones and other low-altitude hazards near passenger facilities, which can help protect operations, reduce shutdown risk, and improve public confidence.	HIGH
4	4. AI-driven vertiport scheduling and movement management	Research papers on "Urban Air Mobility-Vertiport Schedule Management" use graph learning / reinforcement learning to coordinate takeoffs, landings, hovering, pad allocation, delays, collisions, and battery impacts in dense vertiport environments.	Raises throughput without adding concrete first. The main payoff is higher effective capacity per vertiport through smarter sequencing and conflict management, which is exactly the kind of software leverage investors like because it can improve asset productivity before major physical expansion.	HIGH
5	5. Smart air-ground coordination using V2X and dynamic vertiport selection	A 2026 study proposes a unified air-ground coordination framework using deep reinforcement learning and V2X communication to optimize vertiport selection and route planning; in simulation it reports a 34% reduction in average travel time versus conventional allocation methods.	Makes the whole trip more valuable to the customer. The benefit is not just better flying; it is better door-to-door performance. That matters because urban AAM wins economically only when the vertiport, ground access, and flight leg work as one integrated system.	HIGH

Take away: NEXA Capital Partners can source **over \$2 billion** in infrastructure CAPEX now

INVESTOR CASE

Smart AAM infrastructure can produce strong, early returns

Perspective of a long-duration infrastructure investor: target scarce assets, contracted cash flow, and network value that compounds as the market scales.

1. AAM infrastructure can be highly profitable

- **Scarce urban access points create pricing power:** Vertiports, airport interfaces, charging hubs, and low-altitude traffic systems are hard to permit, hard to replicate, and likely to be capacity-constrained in the best MSAs.
- **Cash flow can look like core infrastructure:** Landing fees, passenger facility charges, charging revenue, hangar and pad leases, concession income, data and network service fees, and long-term airport or municipal contracts.
- **Demand concentration supports utilization:** The best early markets are dense metro-airport corridors, medical links, and premium business routes where time savings are valuable and repeat trips are frequent.
- **Phased deployment lowers risk:** Capital can be staged node by node, with each successful corridor de-risking the next and improving portfolio-wide valuation multiples.

2. The smartest ideas offer the fastest upside

- **Start with “picks and shovels,” not aircraft manufacturing:** Energy systems, charging, sensors, weather, communications, software-defined air traffic tools, and multi-use vertiport platforms can earn early revenue.
- **Co-locate with existing demand generators:** Dense population centers, airports, hospitals, multi-mobility hubs, logistics campuses, entertainment districts, etc. reduce risk.
- **Design for dual use and optionality:** Assets that also serve drones, medical logistics, emergency response, defense, or conventional heliport traffic have more resilient utilization and stronger downside protection.
- **Use PPP and concession structures:** Availability payments, minimum revenue guarantees, tax-exempt debt, PABs, and utility partnerships can raise equity returns while keeping user pricing competitive.