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ADVANCED AIR MOBILITY INFRASTRUCTURE: CONSIDERATIONS FOR STATE POLICYMAKERS

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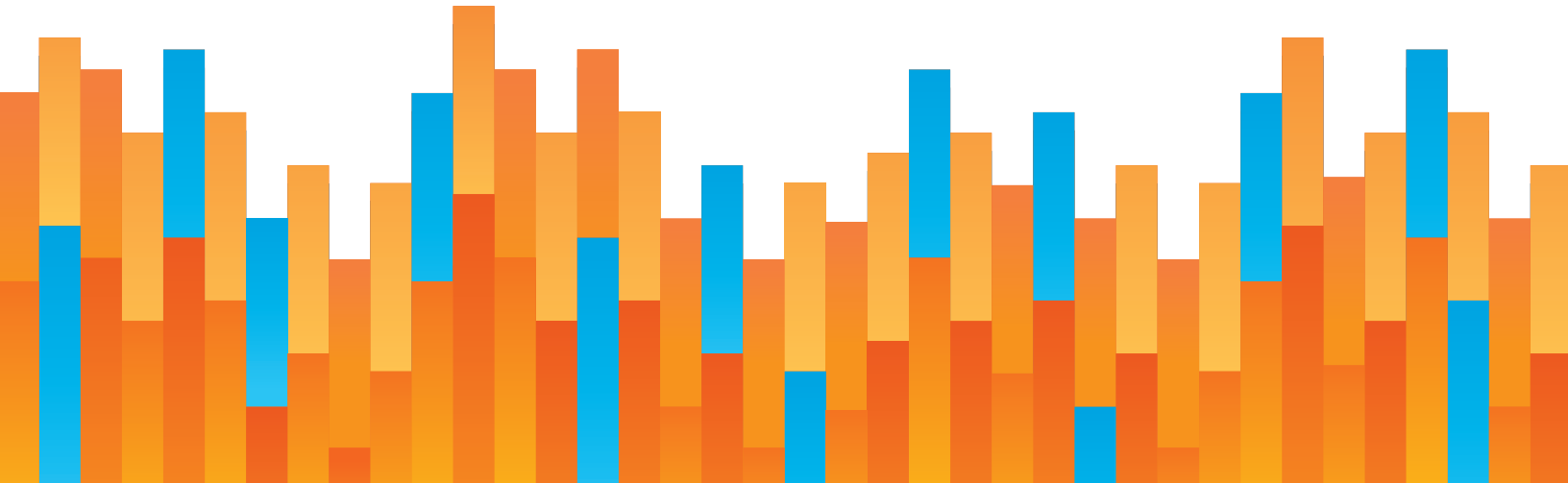

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EXECUTIVE SUMMARY

Advanced air mobility (AAM) encompasses a variety of aircraft form factors and operating use cases. Early development has focused mainly on electric vertical takeoff-and-landing (VTOL) aircraft for commercial air taxi services. While AAM has not yet been commercialized, several AAM aircraft developers are deep into the regulatory certification process. If they succeed, AAM aircraft have infrastructure demands that must be met. Central among the unanswered questions is who will finance, build, and operate this AAM infrastructure, especially vertiports.

Vertiports share the core design elements of conventional heliports and many early vertiports are expected to be retrofitted heliports, adding AAM-specific features such as electric charging as well as expanded passenger and cargo terminals. Vertiports may be located on or off existing airports, and may be sited on the ground or on top of existing structures. Vertiport location and design choices will face additional constraints dependent on aircraft characteristics and VTOL operations, but most will be dictated by private investment and political rules.

Congress has to date played a limited but important role in AAM infrastructure development, primarily by defining “vertiport,” ordering the creation of design guidelines, and funding planning and research. For its part, the Federal Aviation Administration (FAA) has published vertiport design guidelines and has announced plans to establish more-detailed performance-based design standards in the future.

The federal role in AAM infrastructure development will remain limited as long as substantial funding does not materialize. As a result, state and local laws and regulations will prove more influential in dictating development decisions. From 2021 to 2025, 21 states introduced 59 pieces of vertiport-related legislation. Of those 59 bills, 24 were enacted.

Most introduced and enacted state vertiport legislation focused on defining basic terms and ordering further research by responsible agencies. However, bills enacted in Arkansas, Oregon, Utah, and West Virginia establish strict requirements on vertiport ownership and use that could materially impact AAM infrastructure investment and development decisions. This "open access" framework was adopted as model legislation by the American Legislative Exchange Council (ALEC), a national group of conservative state legislators.

The AAM market is characterized by a large degree of uncertainty owing to technology novelty and its unproven commercial viability. As a result, investments in AAM infrastructure carry a large amount of risk. The experience with conventional heliports, where 89% are privately owned and operated, suggests that the vast majority of vertiports will also be privately financed and operated, including many public-use vertiports.

Mitigating the risks to taxpayers posed by public-use vertiports will require innovative procurement methods. Public-private partnerships can leverage underutilized public assets in desirable locations, such as urban parking facilities, for private vertiport development and operation. Long-term leases that grant private concessionaires the right to collect user revenue offer the greatest risk-transfer potential.

However, the "open access" vertiport development framework enacted by several states and adopted by ALEC as model legislation would preclude AAM infrastructure risk transfer from the public to private sectors. There are two main problems with this approach. First, public-use vertiports by definition are open to the public and cannot discriminate between competing AAM operators, undermining the supposed basis for this approach. Second, by mandating vertiport layout plan review by FAA, the "open access" legislative framework establishes a process that cannot be lawfully carried out by FAA in most circumstances. As a result, the "open access" state vertiport policy framework would prevent the development of most public-use vertiports.

Instead of adopting the flawed “open access” framework, states seeking to enable public-use vertiport development to support the broadest variety of AAM services should focus on core responsibilities: defining key terms in statute, incorporating vertiports into state aviation system planning, providing technical assistance to localities, and establishing uniform statewide vertiport development policies.

TABLE OF CONTENTS

PART 1 INTRODUCTION 1

PART 2 BACKGROUND ON ADVANCED AIR MOBILITY 3

PART 3 INFRASTRUCTURE TO SUPPORT AAM 7

PART 4 EXISTING POLICY ON AAM INFRASTRUCTURE 11

4.1 FEDERAL LEGISLATION 11
4.2 FAA POLICY 14
4.3 STATE LEGISLATION 15

PART 5 AAM INFRASTRUCTURE DEVELOPMENT 20

5.1 AAM INFRASTRUCTURE MARKET UNCERTAINTY 20
5.2 HELIPORT DEVELOPMENT LESSONS FOR AAM INFRASTRUCTURE 24
5.3 PROCUREMENT STRATEGIES FOR AAM INFRASTRUCTURE 26
5.4 POLICY BARRIERS TO AAM INFRASTRUCTURE RISK MITIGATION 31

PART 6 CONCLUSION AND RECOMMENDATIONS 35

ABOUT THE AUTHOR 37

PART 1

INTRODUCTION

For generations, futurists have envisioned personalized, mass-market air travel. While not quite the flying cars of science fiction, advanced air mobility (AAM) aircraft and services aim to bring small-scale aviation to the local and regional transportation markets currently dominated by automobiles.

AAM aircraft designs take a number of forms, but most currently under development involve vertical flight, like conventional helicopters. Unlike conventional helicopters, most AAM aircraft designs are powered by electricity and use multiple propellers or rotors. These propellers may or may not rotate to support higher horizontal flight speeds akin to airplanes. Potential benefits of AAM include enhanced urban passenger transportation, better feeder connections to long-distance aviation at conventional airports, more-rapid delivery of high-value cargo, and reduced environmental impacts of travel.

While AAM has not yet been commercialized, several AAM developers are deep into the regulatory certification process. If they succeed, AAM aircraft have infrastructure demands that must be met. Central among the unanswered questions is who will finance, build, and operate this AAM infrastructure.

In contrast to commercial service airports in the United States, helicopter infrastructure has long been dominated by the private sector. There is good reason to expect AAM infrastructure to similarly be principally a private-sector initiative. However, state laws and

regulation may impede private investment, which could expose taxpayers to unacceptable infrastructure risk and thereby threaten the commercialization of AAM.

> *While AAM has not yet been commercialized, several AAM developers are deep into the regulatory certification process.*

This report surveys the AAM infrastructure landscape, with a special emphasis on the state policymaker perspective. Part 2 provides background on AAM. Part 3 examines the infrastructure requirements of AAM. Part 4 highlights existing AAM infrastructure policy. Part 5 summarizes the nascent AAM infrastructure market and discusses procurement strategies that could minimize risk to taxpayers. And Part 6 concludes with recommendations for state policymakers.

PART 2

BACKGROUND ON ADVANCED AIR MOBILITY

The term "advanced air mobility" was first defined by Congress in the Advanced Air Mobility Coordination and Leadership Act of 2022 as "an air transportation system that moves people and cargo between places using new aircraft designs that are integrated into existing airspace operations as well as operated in local, regional, intraregional, rural and urban environments."[1] The FAA Reauthorization Act of 2024 further defined AAM as "a transportation system that is comprised of urban air mobility and regional air mobility using manned or unmanned aircraft."[2]

Congress' emphasis on novel aircraft designs performing shorter-distance operations captures the wide breadth of technologies and operations being considered. AAM may involve vertical takeoff-and-landing (VTOL) or short take-off-and-landing (STOL) aircraft. These aircraft may be powered by conventional aviation fuels, sustainable aviation fuels, battery-electric, hybrid-electric, or hydrogen.

1 Advanced Air Mobility Coordination and Leadership Act, Pub. L. 117–203, 136 Stat. 2227 (17 Oct. 2022). § 2(i)(1).

2 FAA Reauthorization Act of 2024, Pub. L. 118–63, 138 Stat. 1025 (16 May 2024). § 951(1).

According to the December 2025 AAM National Strategy prepared by the federal AAM Interagency Working Group and published by the U.S. Department of Transportation,[3] AAM offers the following potential operational benefits:

- **Access to National Airports:** AAM can connect smaller airports to the larger transportation network.
- **Air Taxi:** AAM can connect people within and between communities.
- **Regional Air Mobility:** Travel would be possible from Washington, D.C., to Manhattan in under two hours.
- **Travel Over Difficult Terrain:** AAM can provide alternative travel in areas like Seattle or the Bay Area that traditionally rely on bridges/boats.
- **Cargo Operations:** AAM can add new cargo capability and supplement existing cargo shipments for priority items.
- **Emergency Response:** AAM can expand medical response to rural areas, assist in search and rescue, aid in natural disaster relief, and expedite organ delivery.
- **Military Transportation:** AAM could quickly move military troops or cargo from one place to another.
- **Skilled Aviation Workforce:** The use of simplified flight controls can allow for aviation to be accomplished more easily and taught to a new class of pilots.

While AAM can encompass a broad array of aircraft designs, most transformative are VTOL aircraft propelled by electric motors, known as "electric VTOL" or "eVTOL" aircraft. Of the 24 AAM aircraft developers included in the December 2025 "Advanced Air Mobility Reality Index" from SMG Consulting, all but five companies are exclusively producing electric aircraft.[4]

Electric VTOL aircraft designs incorporate various propulsion methods, some that use the same propellers for lifting and cruising (e.g., tiltrotors) and others with independent lift and cruise systems.[5] Prototypes from industry leaders Archer Aviation, Beta Technologies, and Joby Aviation are designed to carry four or five passengers. These prototypes have

[3] Advanced Air Mobility National Strategy, Advanced Air Mobility Interagency Working Group, U.S. Department of Transportation, Dec. 2025. ii. https://www.transportation.gov/sites/dot.gov/files/2025-12/AAM%20National%20Strategy%202025.pdf.

[4] Advanced Air Mobility Reality Index, SMG Consulting. https://aamrealityindex.com/aam-reality-index (2 Jan. 2026).

[5] Ibid.

maximum ranges of approximately 150 nautical miles and are capable of flying no more than 200 miles per hour. U.S. electric VTOL manufacturers are developing autonomous flying capabilities, but will enter service as single-pilot aircraft.

Each of the electric VTOL protypes from Archer, Beta, and Joby falls under FAA's regulatory definition of "powered-lift" aircraft. A powered-lift aircraft uses engine-driven lift devices or thrust to supply lift during takeoff, landing, and low-speed flight and wings ("nonrotating airfoil(s)") for lift during horizontal flight—with the second condition differentiating powered-lift aircraft from helicopters.[6] Multicopters that make use of multiple rotors to generate lift during all phases of operation, a design common among small drone quadcopters, are classified as a type of helicopter, not a powered-lift aircraft. In November 2024, FAA finalized a rule on pilot certification and operations meant to integrate the new class of AAM powered-lift aircraft into the aviation system.[7]

In November 2024, FAA finalized a rule on pilot certification and operations meant to integrate the new class of AAM powered-lift aircraft into the aviation system.

The limited range and capacity of these aircraft inherently narrow their potential commercial markets, which has raised questions about the market potential of electric VTOL aircraft. These limitations are acknowledged by electric VTOL developers, who believe electric power and VTOL characteristics of their aircraft are necessary for four main reasons.

First, the ability to perform vertical flight greatly increases the access potential of these aircraft relative to conventional airplanes because VTOL aircraft do not require large, costly airfield runways to take off and land.

6 14 C.F.R. § 1.1.

7 Integration of Powered-Lift: Pilot Certification and Operations; Miscellaneous Amendments Related to Rotorcraft and Airplanes, *Final Rule*, Federal Aviation Administration, Docket No. FAA-2023-1275, 89 Fed. Reg. 92,296 (21 Nov. 2024).

Second, electric motors and smaller, distributed-power propellers are much quieter than helicopters.[8] Most conventional helicopters rely on a single main rotor turned by an engine powered by aviation fuel, which makes helicopters extremely noisy. Public opposition to helicopter noise has led many communities to greatly limit the locations where helicopters are permitted to take off and land, especially in major urban areas.

Third, electric VTOL aircraft developers are using multiple distributed-power propellers for lift, at least during the takeoff and landing phases. This allows developers to automate the takeoff and landing phases, enabling simplified controls and pilot training. Distributed-power propellers also provide redundancy in the event of a motor or propeller failure, which addresses the single-point-of-failure safety problem with conventional helicopters that has spurred public opposition to helicopter operations.

Fourth, electric VTOL aircraft are designed to be far more energy efficient compared to conventional helicopters. For instance, Beta estimates its Alia A250 electric VTOL aircraft will enjoy a 90% reduction in energy costs per hour compared to the Bell 407, a popular utility helicopter of similar size.[9]

By mitigating the features of helicopters that have engendered public opposition and resulted in high operating costs, electric VTOL developers aim to bring the benefits of helicopter-like access to more places and people.

[8] Austin Thai, "From city parks to busy streets: How Joby's electric air taxi blends into urban soundscapes," Joby Aviation, 28 Aug. 2025. https://www.jobyaviation.com/blog/ambient-noise-modeling/ (2 Jan. 2026).

[9] "Aircraft," Beta Technologies. https://beta.team/aircraft (2 Jan. 2026).

PART 3

INFRASTRUCTURE TO SUPPORT AAM

In principle, AAM VTOL aircraft that are flown under visual flight rules require minimal infrastructure—simply a surface to take off and land, as well as fueling or charging infrastructure. However, for commercial operations to be viable, more infrastructure will be needed. The December 2025 AAM National Strategy highlights four primary components of AAM infrastructure:

- **Physical infrastructure:** Specialized takeoff and landing facilities, including storage, maintenance, and passenger and cargo terminals. For VTOL AAM aircraft, these are known as vertiports.
- **Energy infrastructure:** Facilities and equipment to fuel or charge AAM aircraft. This will need to be installed at vertiports, but the broader energy infrastructure must be capable of supporting these facilities and equipment (e.g., appropriate connections to the electric grid).
- **Radio spectrum:** Wireless communications, navigation, and surveillance technologies are needed to ensure safe and efficient operations. As AAM aircraft volume grows, especially in dense airspace, new technologies and approaches will likely be required.

- **Weather infrastructure:** The detection, reporting, and prediction of weather conditions at low altitudes where AAM aircraft will need improved precision and coverage.[10]

In the near term, ensuring vertiports are properly equipped to handle initial AAM VTOL traffic is most critical. Vertiports are similar to conventional heliports and FAA currently classifies vertiports as a type of heliport.[11]

> *In the near term, ensuring vertiports are properly equipped to handle initial AAM VTOL traffic is most critical.*

Like a conventional heliport, the basic elements of a vertiport are a touchdown and liftoff area (TLOF), final approach and takeoff area (FATO), and safety area. The TLOF is a load-bearing area centered in the FATO on which the aircraft lands or lifts off. The FATO is an area over which an aircraft completes the final phase of approach to a hover or a landing, and from which the aircraft initiates takeoff. The TLOF is at the center of the FATO. The safety area surrounds the FATO and is intended to reduce the risk of damage to aircraft accidentally diverging from the FATO.

The dimensions of the TLOF and FATO are defined by an aircraft's rotor diameter (RD), which is the largest length of all the rotors from tip to tip: TLOF is 1 RD and FATO is 2 RD.[12] The safety area is defined by the controlling dimension (D), which is the diameter of the smallest circle enclosing the entire aircraft, including propellers and wings.[13] The safety area for a vertiport is 2.5 D.[14] Figure 1 provides a graphical representation of the relationship between these three areas on a vertiport.

10 Advanced Air Mobility National Strategy. 12.

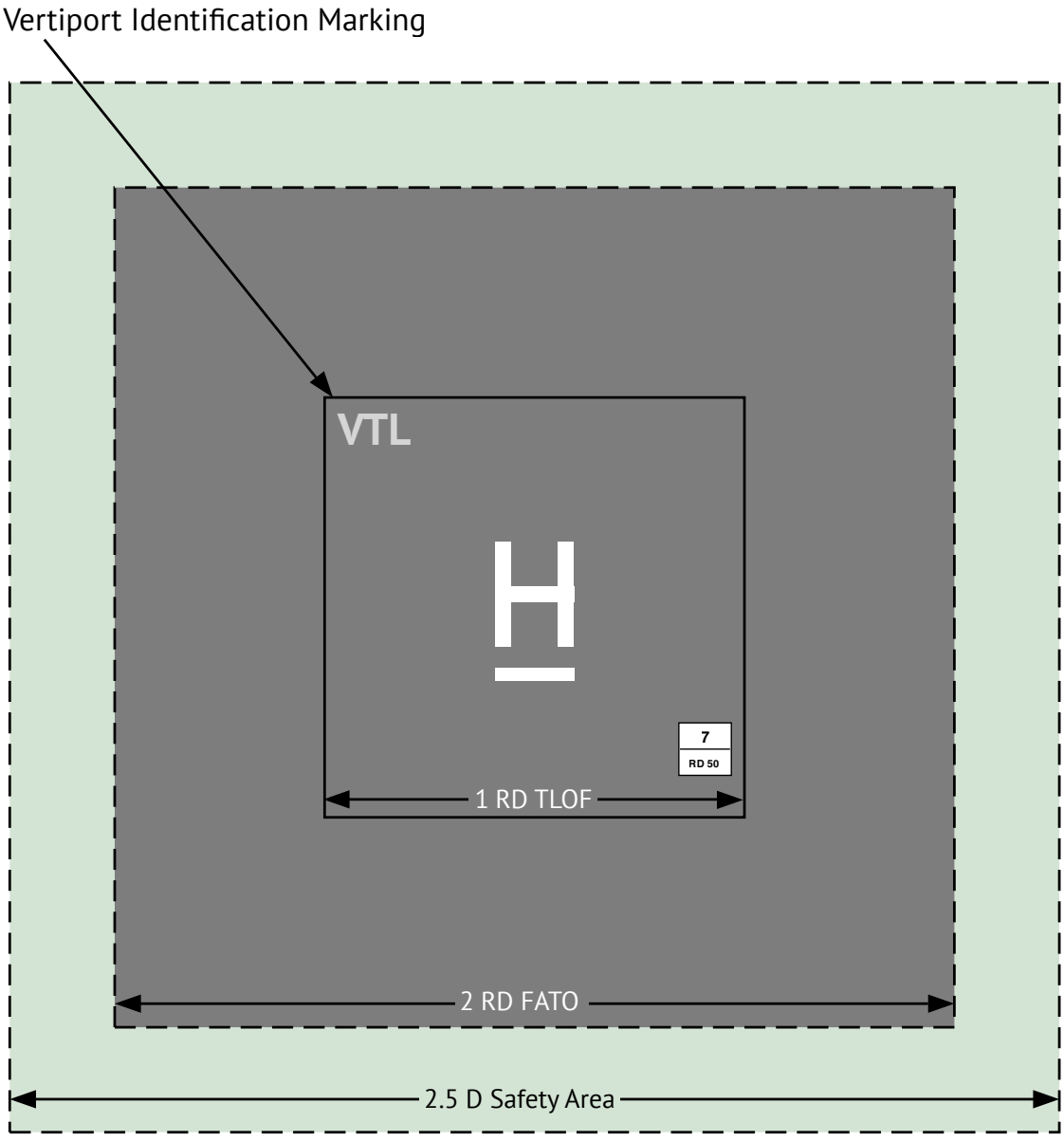
11 Engineering Brief No. 105A, *Vertiport Design*, Supplemental Guidance to Advisory Circular 150/5390-2D, *Heliport Design*, Federal Aviation Administration (27 Dec. 2024). https://www.faa.gov/airports/engineering/engineering_briefs/eb_105a_vertiports.

12 Ibid. 16.

13 Ibid.

14 Ibid.

FIGURE 1: RELATIONSHIP AND DIMENSIONS OF VERTIPORT TLOF, FATO, AND SAFETY AREA



Source: Federal Aviation Administration, Engineering Brief No. 105A, *Vertiport Design* (Dec. 2024).

Beyond these basic features, the design of vertiport facilities can vary considerably. Some may be minimally equipped and designed to support a single VTOL aircraft while others will be designed to serve multiple VTOL aircraft simultaneously, with auxiliary structures for aircraft storage and maintenance, passenger and cargo terminals, and integration with ground transportation or other aviation modes. They may be located on the ground or on top of existing structures. Terms such as “vertistop” and “vertiplex” for various vertiport

classifications have yet to be formally defined. Vertiport location and design choices will face some additional constraints dependent on aircraft characteristics and VTOL operations—notably downwash/outwash caution areas and approach/departure paths—but most will be dictated by private investment and political rules.

PART 4

EXISTING POLICY ON AAM INFRASTRUCTURE

4.1 FEDERAL LEGISLATION

To date, the role of Congress in guiding the development of AAM infrastructure has been limited. This is largely because, unlike for conventional airport infrastructure, substantial appropriations have not been authorized to support vertiports and associated infrastructure. It is through grants that the federal government exerts most of its control over the design, development, and operation of U.S. airports, so future funding authorized by Congress could dramatically increase the federal role in AAM infrastructure. Despite this limited activity, three notable pieces of enacted federal legislation are shaping AAM infrastructure development.

The Advanced Air Mobility Coordination and Leadership Act of 2022 was the first national law on AAM to be enacted.[15] This law established the interagency Advanced Air Mobility Working Group, which was directed to study AAM and issue recommendations to support the integration of AAM into the U.S. aviation system. The working group first met in February 2023 and established five topic-focused subgroups—including one on infrastructure development.

[15] Advanced Air Mobility Coordination and Leadership Act, Pub. L. 117–203, 136 Stat. 2227 (17 Oct. 2022).

In December 2025, the working group released the AAM National Strategy and AAM Comprehensive Plan discussed in Parts 2 and 3. These reports make several recommendations on AAM infrastructure, including facilitating existing or repurposed infrastructure to support near-term AAM operations, collaborating with industry and state and local government to identify planning and financing strategies for AAM infrastructure, identifying facility and equipment requirements to support remote-piloted and autonomous AAM aircraft operations, and expanding guidance on vertiport design.[16]

> *… future funding authorized by Congress could dramatically increase the federal role in AAM infrastructure.*

This initial congressional foray into AAM policy was followed by a provision contained in the Consolidated Appropriations Act of 2023, which established the Advanced Air Mobility Infrastructure Pilot Program.[17] Congress provided the Department of Transportation $25 million over Fiscal Years 2023 and 2024 for AAM infrastructure planning grants to airports and eligible state, local, and regional public entities, which would then be required to produce and submit their plans to the department. In addition, as part of this program, Congress formally defined "vertiport" in law.[18]

The five-year FAA Reauthorization Act of 2024 expanded on these earlier efforts. The law contained a dedicated "Advanced Air Mobility" subtitle and numerous AAM-related provisions.[19] Notable AAM infrastructure policies include:

- **Amended "vertiport" definition:** The initial definition of "vertiport" contained in the 2023 annual appropriations law was deemed excessively narrow and somewhat circular. Congress' updated definition clarifies that vertiports are intended to be used by powered-lift aircraft, as well as "other aircraft" that may be accommodated

16 *Advanced Air Mobility National Strategy*, Advanced Air Mobility Interagency Working Group, U.S. Department of Transportation. 11–19.

17 Consolidated Appropriations Act, 2023, Pub. L. 117–328, 136 Stat. 4459 (29 Dec. 2022), Division Q, § 101.

18 "The term 'vertiport' means a designated location used or intended to be used to support AAM operations, including the landing, take-off, loading, taxiing, parking, and storage of aircraft developed for AAM operations." Ibid. § 101(e)(9).

19 FAA Reauthorization Act of 2024, Pub. L. 118–63, 138 Stat. 1025 (16 May 2024), Title IX, Subtitle B.

under vertiport design and performance standards to be issued by the FAA administrator.[20]

- **Categorical exclusion for vertiports:** Project environmental reviews can take years to complete and involve considerable cost to project sponsors. Categorical exclusions from the National Environmental Policy Act (NEPA) of 1969 exempt agencies from performing environmental assessments or environmental impact statements that are normally required. The 2024 reauthorization orders FAA to apply any existing NEPA categorical exclusions to vertiport projects and to develop additional vertiport-specific categorical exclusions as needed.[21]
- **Air traffic control procedures for vertiports:** As part of the development of long-term air traffic control policies, the 2024 reauthorization orders FAA "to the extent necessary, develop powered-lift specific procedures for airports, heliports, *and vertiports*" (emphasis added).[22]
- **Vertiport design standards:** FAA routinely issues what are known as "advisory circulars" (ACs) to provide uniform guidance to the aviation sector on particular matters of interest, such as regulatory compliance. FAA does not currently have an AC on vertiport design and has instead been relying on Engineering Brief (EB) No. 105. EB 105 was issued in 2022 and is largely based on the existing heliport AC. The 2024 reauthorization orders FAA to issue a revised EB 105 by the end of 2024, publish a performance-based vertiport design AC by the end of 2025, and establish a mechanism by which operators of existing aviation infrastructure can accommodate powered-lift aircraft.[23] This is discussed in greater detail in Section 4.2.
- **Extension of AAM Infrastructure Pilot Program:** The 2023 appropriations law authorized the Advanced Air Mobility Infrastructure Pilot Program through Fiscal Year 2025 and provided $12.5 million in planning grants for Fiscal Years 2023 and 2024. The 2024 reauthorization extends the pilot program through Fiscal Year 2027 and provides two additional years of planning grant funding at $12.5 million per year.[24]

20 "The term 'vertiport' means an area of land, water, or a structure used or intended to be used to support the landing, takeoff, taxiing, parking, and storage of powered-lift aircraft or other aircraft that vertiport design and performance standards established by the Administrator can accommodate." Ibid. § 951(5).

21 Ibid. § 953.

22 Ibid. § 957(c)(2).

23 Ibid. § 958.

24 Ibid. § 960.

4.2 FAA POLICY

In the 1980s, the U.S. military grew more interested in large tiltrotor aircraft, culminating in the V-22 Osprey.[25] The potential for civil passenger service was also noted, and civilian variants of military tiltrotor aircraft were proposed.[26] This hypothesized commercial potential of vertical flight for city-to-city and airport feeder passenger service led FAA to issue a new advisory circular for vertiport design in May 1991.[27]

Unfortunately, the V-22 Osprey experienced substantial delays and cost overruns, as well as well-publicized fatal crashes, and enthusiasm for civilian tiltrotor aircraft waned. Due to the failure of the civil tiltrotor market to materialize, FAA canceled the vertiport advisory circular in July 2010.[28]

The decade that followed saw the birth of the current AAM industry, with its major focus on civilian use cases. To address the infrastructure needs of this new class of VTOL aircraft, FAA in September 2022 issued Engineering Brief (EB) No. 105 to provide interim guidance on vertiport design.[29] As was noted in Section 4.1, EB 105 was largely based on the existing heliport design advisory circular and reflected the prescriptive nature of that document.

The FAA Reauthorization Act of 2024 contained provisions requiring an update to EB 105, a new "performance-based vertiport design advisory circular," and a performance-based update to FAA's existing heliport design advisory circular.[30] In December 2024, FAA released its revised vertiport design guidance document, EB 105A, which provides insight into how the agency will move forward on AAM infrastructure standards.[31]

25 "Tiltrotor and Advanced Rotorcraft Technology in the National Airspace System (TARTNAS)," Federal Aviation Administration, FAA Research, Engineering and Development Committee, Vertical Flight Subcommittee, 1 March 2001. https://www.faa.gov/sites/faa.gov/files/media/reports/CommitteeReport-TechnologiesinNAS.pdf.

26 P. Thompson, et al., "Civil Tiltrotor Missions and Applications Phase II: The Commercial Passenger Market," Boeing Commercial Airplane Group, National Aeronautics and Space Administration Ames Research Center, Report No. NASA CR 177576 (Feb. 1991).

27 Advisory Circular 150/5390-3, *Vertiport Design*, Federal Aviation Administration, 31 May 1991.

28 "AC 150/5390-3 - Vertiport Design (Cancelled)," Federal Aviation Administration. https://www.faa.gov/regulations_policies/advisory_circulars/index.cfm/go/document.information/documentID/23096 (4 Dec. 2025).

29 Engineering Brief No. 105, *Vertiport Design*, Federal Aviation Administration, 21 Sept. 2022.

30 FAA Reauthorization Act of 2024, § 958.

31 Engineering Brief No. 105A, *Vertiport Design*, Supplemental Guidance to Advisory Circular 150/5390-2D, *Heliport Design*, Federal Aviation Administration (27 Dec. 2024). https://www.faa.gov/airports/engineering/engineering_briefs/eb_105a_vertiports.

Most significantly, EB 105A reclassified vertiports as a type of heliport with some distinct requirements, and the document is presented as a supplement to the existing heliport design advisory circular. This was in part done to simplify implementation at the state and local levels, where authorities can leverage existing heliport laws and regulations that may reference the heliport design advisory circular to plan and develop vertiport projects.

> *In December 2024, FAA released its revised vertiport design guidance document, EB 105A, which provides insight into how the agency will move forward on AAM infrastructure standards.*

As directed by Congress, EB 105A adopts some performance-based features, such as in the newly created Downwash/Outwash Caution Area.[32] However, as FAA indicates, EB 105A is meant to serve as a placeholder until a more comprehensive performance-based aviation circular on vertiport design is developed.[33] This will require a better understanding of the performance capabilities of VTOL aircraft. A major component of this work involves the creation of a method by which VTOL aircraft manufacturers can demonstrate equivalent landing accuracy as part of their certification process.[34]

While EB 105A is not binding under federal law, compliance with it and its successors may be mandated by state or local governments. As such, it will prove to be influential on vertiport development and the broader AAM industry serving those facilities.

4.3 STATE LEGISLATION

Coinciding with federal action on AAM policy was growing state-level activity on vertiports. Ohio introduced an AAM vertiport bill in 2021; it was the first and only state to do so. Interest has grown rapidly, as Table 1 shows. In 2022, three vertiport-related bills were introduced in West Virginia. In the 2025 legislative session, 15 states introduced 24

[32] Ibid. 24–25.
[33] Ibid. 9.
[34] Ibid. 4.

vertiport-related bills. In the last five years since Ohio's first bill, 21 states have introduced 59 pieces of vertiport-related legislation.

TABLE 1: VERTIPORT-RELATED BILLS INTRODUCED IN STATE LEGISLATURES, 2021-2025

State	2025	2024	2023	2022	2021	Total
Alabama	1	1	0	0	0	**2**
Arkansas	1	1	0	0	0	**2**
Arizona	2	0	0	0	0	**2**
California	1	1	1	0	0	**3**
Connecticut	0	2	0	0	0	**2**
Florida	2	5	2	0	0	**9**
Georgia	1	0	0	0	0	**1**
Iowa	1	0	0	0	0	**1**
Kansas	2	0	0	0	0	**2**
Kentucky	1	0	0	0	0	**1**
Louisiana	0	1	0	0	0	**1**
Michigan	1	0	2	0	0	**3**
Nevada	1	0	0	0	0	**1**
Ohio	2	2	1	0	1	**6**
Oklahoma	3	2	0	0	0	**5**
Oregon	0	0	1	0	0	**1**
Texas	4	0	2	0	0	**6**
Utah	1	1	3	0	0	**5**
Washington	0	0	1	0	0	**1**
West Virginia	0	0	0	3	0	**3**
Wisconsin	0	0	2	0	0	**2**
Total	**24**	**16**	**15**	**3**	**1**	**59**

Source: LegiScan Government Affairs Information Tracking System (2025); author's analysis.

But mere interest in AAM policy does not necessarily translate to action. Only 24 of the 59 bills introduced between 2021 and 2025 were enacted (41%), which are listed and summarized in Table 2.

TABLE 2: VERTIPORT-RELATED BILLS ENACTED IN STATES, 2022-2025

State	Year	Bill Number	Description
West Virginia	2022	HB 4827	Prohibits "the grant of an exclusive right to one or more vertiport owners and operators or to vertiport operators at one or more vertiports"
West Virginia	2022	SB 434	Updates definitions of "airport" and "ancillary airport" to include "vertiport"
California	2023	SB 800	Establishes the Advanced Air Mobility, Zero-Emission, and Electrification Aviation Advisory Panel
Michigan	2023	HB 4437	Establishes $10 million grant program for AAM and drone infrastructure projects, including vertiports
Oregon	2023	HB 2834	Prohibits granting "an exclusive right to one operator to develop vertiports or control vertiport operations within the local government's jurisdiction"
Texas	2023	SB 2144	Establishes the Advanced Air Mobility Advisory Committee; orders update to state aviation system plan to incorporate vertiports
Utah	2023	SB 24	Defines "vertiport"
Utah	2023	SB 161	Orders Department of Transportation to study vertiport locations and infrastructure
Utah	2023	SB 185	Prohibits local governments from "entering into an agreement to grant or permit an exclusive right to one or more vertiport owners as the only vertiport owners or operators within the boundary of the political subdivision," unless "only one owner or operator applies for a permit in that political subdivision." Further provides that "unless the vertiport owner, operator, or facility receives any public money, the vertiport owner or operator may exclude other users from using the owner's or operator's vertiport."
Washington	2023	HB 1125	Provides $300,000 to Department of Transportation to study vertiport infrastructure development needs
Alabama	2024	HB 176	Defines "vertiport"; orders statewide plan for vertiports and associated infrastructure; preempts local governments on "advanced air mobility"
Connecticut	2024	HB 5330	Defines "vertiport"; adds vertiport references to various aviation infrastructure sections
Florida	2024	HB 1301	Defines "vertiport"; makes vertiports eligible for funding under the newly established Supply Chain Innovation Grant Program
Louisiana	2024	SB 215	Establishes the Louisiana Vertiport Development Fund
Oklahoma	2024	HB 3672	Defines "vertiport"; adds vertiport references to various aviation infrastructure sections
Oklahoma	2024	SB 1912	Adds vertiport references to the Municipal Airports Act; investigates the need for a statewide vertiport development plan; authorizes the state to enter into partnerships with local governments to invest and operate AAM infrastructure.
Utah	2024	SB 135	Extends "airport influence area" to public use vertiports
Arkansas	2025	HB 1976	Defines "public-use vertiport"; prohibits the state or a local government "from granting an exclusive right of access to one (1) or more vertiport operators at any public-use vertiport"
Arizona	2025	SB 1307	Defines "vertiport"; orders update to state aviation system plan to incorporate vertiports; authorizes local governments to select public and private vertiport locations
Arizona	2025	SB 1750	Establishes Advanced Air Mobility Fund subject to legislative appropriation, which authorizes funding eligibility to "construct vertiports"

State	Year	Bill Number	Description
Florida	2025	SB 1662	Extends definition of "airport" to include "vertiports" and "vertistops"; orders Department of Transportation to consider vertiports and AAM in its state aviation system plan
Georgia	2025	HB 156	Defines "vertiport" as a type of "landing field"; authorizes Department of Transportation to plan for establishment, development, and maintenance of landing fields
Oklahoma	2025	SB 920	Defines heliport and vertiport hazard areas subject to local airport zoning authority
Utah	2025	SB 96	Orders Department of Transportation to develop an AAM toolkit, including model local ordinances

Source: LegiScan Government Affairs Information Tracking System (2025); author's analysis.

The first notable bill was West Virginia House Bill (H.B.) 4827 in 2022, which prohibited "the grant of an exclusive right to one of more vertiport owners and operators or to vertiport operators at one of more airports." The focus on access rights at vertiports has been echoed in legislation passed in other states: Oregon in 2023 (H.B. 2834), Utah in 2023 (Senate Bill 185), and Arkansas (H.B. 1976).

These vertiport open-access bills were developed and advanced by electric VTOL developer Supernal, a U.S. subsidiary of South Korea's Hyundai Motor Group.[35] The rest of the AAM industry strongly opposed these bills, citing legal ambiguity created by the legislation and speculating that Supernal was attempting to use poor bill drafting to delay its more advanced competitors.[36] In addition to potential negative impacts to private AAM competition, open-access vertiport legislation would have limited procurement methods, especially promising models that can minimize risk borne by the public sector.

In September 2025, Supernal paused operations following large-scale layoffs, including its executive leadership team.[37] The future of open-access vertiport bills is uncertain, but Supernal's exit from the current AAM market makes similar legislation less likely to appear in the immediate future. However, a version of Supernal's bill was adopted as model legislation in 2023 by the American Legislative Exchange Council (ALEC), an organization

35 Marc Scribner, "A State Threat to AAM Vertiport Development?" *Aviation Policy News*, Reason Foundation, 27 June 2022. https://reason.org/aviation-policy-news/faa-change-on-evtol-certification-san-juans-airport-transformed-by-privatization/#d (4 Dec. 2025).

36 Marc Scribner, "Managing Advanced Air Mobility Infrastructure Risks," *Aviation Policy News*, Reason Foundation, 19 Dec. 2023. https://reason.org/aviation-policy-news/faa-safety-review-reveals-air-traffic-control-dysfunction/#e (4 Dec. 2025).

37 Sean O'Kane, "Hyundai's eVTOL startup Supernal pauses work following CEO and CTO departures," *TechCrunch*, 7 Sept. 2025. https://techcrunch.com/2025/09/07/hyundais-evtol-startup-supernal-pauses-work-following-ceo-and-cto-departures/ (4 Dec. 2025).

of conservative state legislators from across the United States.[38] This could increase the longevity of Supernal's legislative approach even in Supernal's absence. The vertiport risk-management challenges posed by vertiport open-access bills like the ALEC model are discussed in Section 5.4.

Practical legislation designed to modernize state codes to explicitly incorporate vertiports and associated infrastructure is likely to continue dominating vertiport-related lawmaking. While open-access bills have received the most attention, most state-level vertiport legislation has focused on less-contentious subjects, as Table 2 shows. These include providing a statutory definition of "vertiport," including or studying the inclusion of vertiports in state aviation system plans, and establishing state-wide uniformity on vertiport policy.

[38] "Open Access to Vertiports Act," *Model Policy*, American Legislative Exchange Council, finalized 22 Dec. 2023. https://alec.org/model-policy/open-access-to-vertiports-act/ (4 Dec. 2025).

PART 5

AAM INFRASTRUCTURE DEVELOPMENT

5.1 AAM INFRASTRUCTURE MARKET UNCERTAINTY

Given the novelty of AAM, the market is highly volatile and future demand for supporting infrastructure is highly uncertain. The VTOL aircraft and component manufacturers that proliferated over the last decade are settling into two camps: a small number of powerhouse startups (e.g., Archer Aviation, Beta Technologies, and Joby Aviation) that are advancing full-scale prototypes through flight testing and approaching FAA certification, and a larger number of failed endeavors.

An October 2025 *Aviation Week* article catalogued the downfall of 13 AAM manufacturers in 2024 and 2025.[39] Notable examples include:

- Germany-based **Lilium**, which had raised nearly $1.5 billion and employed more than 1,200 people until it imploded in late 2024. The company's key patents were acquired by Archer Aviation in 2025.[40]
- The **CityAirbus NextGen** electric VTOL air taxi, developed by Airbus Helicopters, a division of the European aerospace giant. Just months following its first flight test in

[39] Ben Goldstein, "Advanced Air Mobility Failures Pile Up In 2025," *Aviation Week*, 24 Oct. 2025.
[40] Ibid.

November 2024, the company paused development of the program, citing AAM market uncertainty and the maturity of battery technology.[41]

- **Supernal**, the U.S. VTOL subsidiary of South Korea's Hyundai Motor Group, engaged in mass layoffs and paused development of its S-A2 tiltrotor aircraft concept. It is suspected to have spent $1 billion to $1.5 billion, and it is unclear how long the company will continue to exist.[42]

SMG Consulting's Advanced Air Mobility Reality Index shows that the vast majority of AAM aircraft orders are conditional (letters of intent, memoranda of understanding, or options), meaning most planned purchases are not binding commitments.[43] Even the firm orders that require financial commitments from purchasers in the form of cash deposits—of which market leaders Archer, Beta, and Joby have hundreds between them—are most likely contingent upon successful regulatory certification and other "entry into service" criteria specified in the purchase contracts.

> *"Worldwide, only one AAM aircraft manufacturer has made deliveries to date: China's EHang..."*

Worldwide, only one AAM aircraft manufacturer has made deliveries to date: China's EHang, the company that developed a two-seater electric VTOL aircraft with maximum flight time of 20 to 25 minutes between charges.[44] The piloted and autonomous variants are currently only certificated in China, where commercial operations are focused on tourist sightseeing.[45]

The uncertainty of the AAM manufacturer marketplace understandably extends to infrastructure development, which exists to provide services to AAM aircraft. According to

41 Ibid.

42 Ibid.

43 *Advanced Air Mobility Reality Index,* SMG Consulting.

44 Ibid.

45 Charles Alcock, "EHang Earns World's First eVTOL Air Operator Certificate," *Aviation International News*, 31 March 2025. https://www.ainonline.com/aviation-news/futureflight/2025-03-31/ehang-earns-worlds-first-evtol-air-operator-certificate (29 Dec. 2025).

SMG Consulting's Advanced Air Mobility Infrastructure Readiness (AIR) Index,[46] leading vertiport developers in the United States include:

- **Groupe ADP and Skyports Infrastructure:** U.K.-based Skyports Infrastructure partnered with French airport company Groupe ADP to form Downtown Skyport, which in 2024 was awarded a five-year concession from New York City (with potential for a five-year renewal) to renovate, electrify, and operate the Downtown Manhattan Heliport, which is located on a pier in the East River adjacent to New York's Financial District. Aside from AAM passenger service that would feed New York-area airports and sightseeing operations, the concession aims to facilitate last-mile freight delivery via a small marine terminal and links to cargo bike services. Major AAM manufacturers Archer, Beta, and Joby have strongly supported this redevelopment project.[47]
- **Signature Aviation:** Florida-based Signature Aviation, the world's largest fixed-base operator (FBO) network, in 2025 entered into a joint venture with UrbanV, a vertiport startup formed by a consortium of private Italian airport operators.[48] The partnership aims to develop a vertiport network, with an initial focus on airports serving metropolitan areas in California, Florida, New York, and Texas.
- **VertiPorts by Atlantic:** Initially started as a subsidiary of major Spanish infrastructure company Ferrovial, the company was acquired by U.S. FBO network Atlantic Aviation in 2025.[49] VertiPorts by Atlantic counts several major AAM manufacturers among its partners, including Archer, Beta, and Joby. It has plans to enter service in the northeast U.S., Los Angeles, San Francisco, and Miami.

While these early deals show promise for AAM infrastructure in the United States, to be successful, they will require FAA airworthiness and operating certifications that have yet to be achieved, as well as the consequent sustained growth of commercial AAM services. Betting on infrastructure before aircraft and air transportation operations are proven to be

46 *Advanced Air Mobility Infrastructure Readiness Index*, SMG Consulting. https://aamrealityindex.com/aam-infrastructure-index-1 (29 Dec. 2025).

47 Press Release, "NYCEDC Unveils 'Downtown Skyport' as New Operator Takes Over City-Owned Heliport," New York City Economic Development Corporation, 3 Apr. 2025. https://edc.nyc/press-release/nycedc-unveils-downtown-skyport-new-operator-takes-over-city-owned-heliport (29 Dec. 2025).

48 Press Release, "Signature Aviation and UrbanV Sign JV Agreement to Develop Networks of Vertiports in the U.S." Signature Aviation, 12 June 2025. https://www.signatureaviation.com/news/signature-aviation-and-urbanv-sign-jv-agreement-develop-networks-of-vertiports (29 Dec. 2025).

49 Press Release, "Atlantic Aviation Acquires Ferrovial Vertiports," Atlantic Aviation, 6 Jan. 2025. https://www.atlanticaviation.com/news/atlantic-aviation-acquires-ferrovial-vertiports/ (29 Dec. 2025).

viable has happened before, most notably with the Dallas Central Business District (CBD) Vertiport.

> *While these early deals show promise for AAM infrastructure in the United States, to be successful, they will require FAA airworthiness and operating certifications that have yet to be achieved, as well as the consequent sustained growth of commercial AAM services.*

The Dallas CBD Vertiport is the largest in the country, with a deck measuring nearly four acres. Owned by the city and sited on top of the Kay Bailey Hutchison Convention Center, the public-use vertiport opened in 1994 and was designed to accommodate up to two V-22 Osprey tiltrotor aircraft and three helicopters simultaneously.[50] Development took 11 years at a cost of $18 million, during which time the conceptual design changed 10 to 15 times.[51]

The civilian market for large passenger tiltrotor aircraft never materialized, and the Dallas CBD Vertiport has been underutilized throughout its existence. It is currently closed for demolition and reconstruction in conjunction with expansion of the convention center.[52] The new vertiport will be designed to accommodate the current generation of electric VTOL aircraft.

The experience with the Dallas CBD Vertiport suggests that construction of vertiports prior to aircraft proof of market carries substantial risks. In the case of publicly owned public-use facilities, these risks will be borne disproportionately by taxpayers. As the AAM marketplace continues to develop and evolve, public officials should examine procurement strategies to mitigate and transfer construction, financing, and operating risks.

50 "Dallas Central Business District Vertiport," Dallas Executive Airport. https://dallasexecairport.com/vertiport/ (29 Dec. 2025)

51 Deborah J. Peisen, et al., "Heliport/Vertiport Implementation Process - Case Studies," SAIC, Federal Aviation Administration, Report No. DOT/FAA/ND-96/1, Aug. 1996. 32–36.

52 Krista Summerville, "Dallas heliport to close for demolition and rebuild as part of convention center expansion," WFFA.com, 23 July 2025. https://www.wfaa.com/article/news/local/dallas-county/dallas-heliport-to-close-for-demolition-rebuild-as-part-of-convention-center-expansion/287-f068234d-1182-4f98-9872-8c3c5b1065c4 (29 Dec. 2025).

5.2 HELIPORT DEVELOPMENT LESSONS FOR AAM INFRASTRUCTURE

With vertiport development for AAM at its nascent stage, market analysis is exceedingly difficult and subject to a large amount of uncertainty. However, the existing heliport market is far more developed. Given that many early vertiports for AAM are anticipated to be retrofitted heliports, and that FAA has categorized vertiports as a type of heliport, the heliport market may offer lessons for the future vertiport market.

Based on review of the FAA's Airport Data and Information Portal, which contains detailed information about airport facilities throughout the United States, there were 5,633 operational non-military heliports in the United States as of December 2025.[53] A breakdown of operational heliports by ownership (public or private) and use (public or private) is displayed in Table 3.

TABLE 3: CIVILIAN U.S. HELIPORTS BY FACILITY OWNERSHIP AND USE, DECEMBER 2025

Use	Ownership			
		Public	Private	Totals
	Public	31 (0.55%)	26 (0.46%)	57 (1.01%)
	Private	579 (10.28%)	4,997 (88.71%)	5,576 (98.99%)
	Totals	610 (10.83%)	5,023 (89.17%)	5,633 (100%)

Source: Federal Aviation Administration, *Airport Data and Information Portal* (Dec. 2025); author's analysis.

As this breakdown of facility ownership and use shows, the U.S. heliport market is dominated by privately owned, private-use facilities at which prior permission is required from the owner to access (88.71%). Just 31, or 0.55%, of heliports are publicly owned and open to the public—which is just slightly more than *privately* owned, public-use heliports (26, or 0.46%). Even among the 610 (10.83%) heliports that are publicly owned, 94.92% of them are private-use facilities. These publicly owned, private-use facilities (579, or 10.28%) are mostly dedicated for special purposes by government agencies, such as police, fire, and emergency medical services.

Given the makeup of the existing heliport market, we can expect that the majority of AAM-supporting vertiports will be both privately owned and for private use. The role of public

[53] *Airport Data and Information Portal*, Federal Aviation Administration. https://adip.faa.gov/ (30 Dec. 2025); author's analysis.

policy for privately owned, private-use facilities is limited. State lawmakers should pay special attention to local land-use rules and construction code requirements. Lawmakers may wish to establish uniform vertiport policy in their states to ensure permitting for vertiports does not become an instrument for exactions by local governments, which breed political favoritism and corruption.

Yet the potential to provide more-affordable AAM services—at least when compared to helicopters—suggests that larger public-use vertiports will be desirable to support commercial activities such as airport transfers and urban air taxis.

Yet the potential to provide more-affordable AAM services—at least when compared to helicopters—suggests that larger public-use vertiports will be desirable to support commercial activities such as airport transfers and urban air taxis. As with heliports, many public-user vertiports may be procured purely through private means. But conversions of existing "brownfield" publicly owned, public-use heliports to vertiports and the potential siting of new "greenfield" public-use vertiports on publicly owned property will necessarily increase the public-sector role in vertiport procurement. This is especially true of concepts that incorporate public-use vertiports into multimodal transportation hubs.

Given the uncertainty around the future of AAM, as was discussed in Section 5.1, public funding of speculative vertiport infrastructure exposes taxpayers to a large amount of project risk. Publicly owned, public-use heliports may be eligible for federal Airport Improvement Program grant funding, but only if they are included in FAA's National Plan of Integrated Airport Systems (NPIAS).[54] Inclusion in the NPIAS is a complex and time-consuming process; just eight heliports are currently included.[55]

[54] FAA Order 5090.5, *Formulation of the NPIAS and ACIP*, Federal Aviation Administration, 3 Sept. 2019.

[55] *Airport Data and Information Portal*, Federal Aviation Administration; author's analysis.

Even if a heliport is included in the NPIAS, it is not guaranteed AIP grants. Accepting AIP funding also comes with numerous strings attached in the form of grant assurances.[56] Grant assurances are long-term compliance obligations that are likely to persist for the life of the facility and may be unappealing to would-be sponsors, especially at this early stage of AAM. This suggests federal funding is unlikely to play a major role in vertiport development, although navigating existing grant assurances will be important when incorporating vertiports at existing aviation facilities, such as commercial service airports.

5.3 PROCUREMENT STRATEGIES FOR AAM INFRASTRUCTURE

With sizable federal funding of vertiport infrastructure unlikely to materialize in the near term, state and local government funding of public-use facilities is a possibility. However, taxpayers are likely to be wary of accepting financial risk to support commercial enterprises that may not benefit them directly. Public-private partnerships (P3s), especially a type known as design-build-finance-operate-maintain (DBFOM) offer an appealing alternative to public funding of public-use vertiports.

Public-private partnerships (P3s), especially a type known as design-build-finance-operate-maintain (DBFOM) offer an appealing alternative to public funding of public-use vertiports.

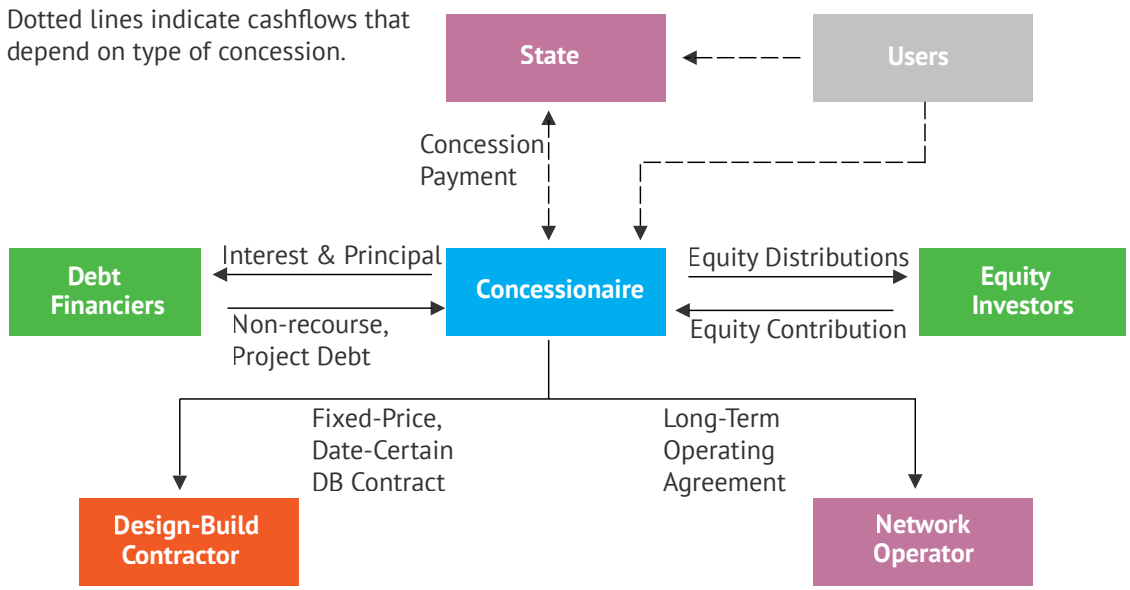
Under a DBFOM P3, a government agency awards a concession to a private company or consortium of private companies to manage all aspects of development and operations of the infrastructure facility for the term of the contract, which can be as long as the asset's useful life.[57] The structure of such an arrangement is governed by a concession agreement, which details the rights and responsibilities of the public and private partners, including performance and payment requirements. The private concessionaire secures financing from

[56] "Grant Assurances (Obligations)," Federal Aviation Administration, 28 Apr. 2025. https://www.faa.gov/airports/aip/grant_assurances (30 Dec. 2025).

[57] Robert W. Poole, Jr., "Availability Payment or Revenue-Risk P3 Concessions? Pros and Cons for Highway Infrastructure," *Policy Study No. 458*, Reason Foundation, Nov. 2017. https://reason.org/policy-study/availability-payment-or-revenue-risk-public-private-partnership-concessions-pros-and-cons-for-highway-infrastructure/ (30 Dec. 2025).

debt and equity investors to undertake the agreed-upon project. The concessionaire is then responsible for designing, building, operating, and maintaining the asset according to the terms of the concession agreement, often hiring qualified contractors to carry out these duties. Figure 2 illustrates the basic structure of a DBFOM concession.

FIGURE 2: A TYPICAL DBFOM CONCESSION STRUCTURE

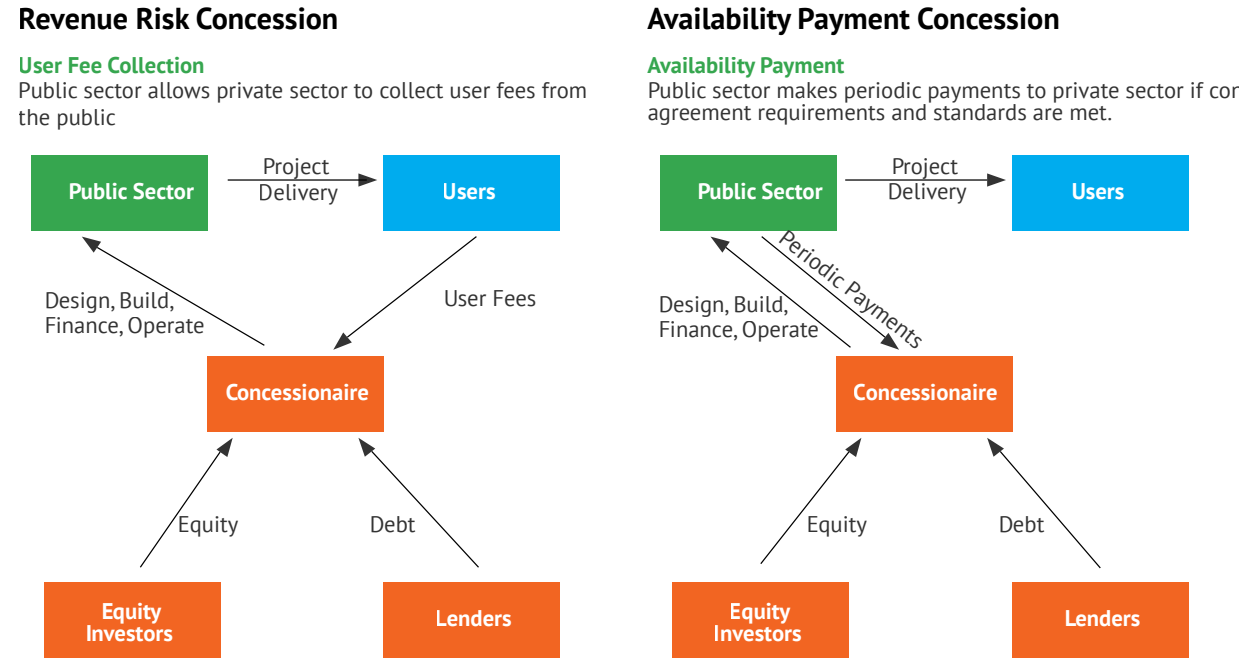


Source: Robert W. Poole, Jr., "Availability Payment or Revenue-Risk P3 Concessions? Pros and Cons for Highway Infrastructure," *Policy Study No. 458*, Reason Foundation, Nov. 2017.

DBFOM P3s can be grouped into two categories: revenue-risk (RR) and availability payment (AP).[58] These are illustrated in Figure 3. Under a RR DBFOM concession, the primary revenue source is user fees paid by the facility's customers, such as tolls for highways or aircraft landing fees for airports. RR concessions are attractive when projected user-fee revenue is sufficient to cover operations and maintenance costs and make debt service payments. For AP concessions, the revenue stream is provided by the government. It may be supported by user fees, in which case the government is responsible for setting and collecting those charges, but often involves a commitment of future tax revenue.

58 Ibid.

FIGURE 3: TYPES OF DBFOM CONCESSIONS



Source: Robert W. Poole, Jr., "Availability Payment or Revenue-Risk P3 Concessions? Pros and Cons for Highway Infrastructure," Policy Study No. 458, Reason Foundation, Nov. 2017.

Both RR and AP concessions transfer risk from the public to private sector.[59] Under both models, the concessionaire bears risks related to construction cost overruns, delayed completion, and ongoing operations and maintenance. However, unlike an RR concession, an AP concession does not take on traffic and revenue risks, which remain with the government asset owner. As a result, projects procured as RR concessions transfer more risk from taxpayers than do AP concessions.

Globally, the P3 concession model is popular across a wide range of infrastructure asset classes.[60] In the United States, infrastructure that was historically publicly owned in other countries—such as telecommunications, electricity, and railroads—have generally been privately provided. A notable exception is commercial service airports, which are mostly publicly owned and operated in the United States, in contrast to private provision common in many countries in Asia, Europe, and Latin America.[61] However, there is growing interest

59 Ibid.

60 Poole, "Annual Transportation Finance Report: 2025," Reason Foundation, May 2025. https://reason.org/policy-brief/annual-transportation-finance-report-2025/ (30 Dec. 2025).

61 Marc Scribner, "Annual Aviation Infrastructure Report: 2025," Reason Foundation, May 2025. https://reason.org/policy-brief/annual-aviation-infrastructure-report-2025/ (30 Dec. 2025).

in P3s for U.S. airport component projects, such as passenger terminals and consolidated rental car centers (CONRACs). There is also a long history of private FBOs that provide specialized services for general aviation customers at publicly owned airports across the United States.

Initial vertiports are expected to concentrate at existing aviation facilities, such as at airports and heliport conversions. This "brownfield" approach offers several risk-management advantages compared to new "greenfield" construction, including cost savings, time savings, the ability to explore technical issues (e.g., obstacle clearance, utility relocation, layout plan conformity) in more predictable environments, and leveraging existing airport and FBO knowledge and relationships.

> *Airport master plan updates increasingly are incorporating vertiports, including at large hubs.*

Airport master plan updates increasingly are incorporating vertiports, including at large hubs. For instance, Philadelphia International Airport is considering the inclusion of a vertiport on top of a new nine-story parking structure that will also serve as a CONRAC.[62] For retrofitting existing public-use heliports to support AAM, FBOs have already entered into DBFOM concessions, such as New York City's Downtown Skyport project mentioned in Section 5.1.

But given that there are only 57 operational public-use heliports in the United States, as highlighted in Table 3, scaling AAM to provide air taxi service that could be competitive with mass-market ground transportation will require new "greenfield" vertiport construction.

One promising procurement strategy would be to focus on underutilized public assets, such as publicly owned urban parking structures. Many central business districts are struggling with reduced commercial real estate occupancy as remote work persists at multiples above

[62] "Executive Summary – Alternatives Development & Evaluation," *PHL Master Plan Update*, Philadelphia International Airport, 3 Dec. 2025. https://www.phl.org/drupalbin/media/alternatives-development-evaluation_12-3-25v1.pdf.

its pre-pandemic level. This has reduced daily commuter demand for parking, leading to declining parking facility revenue.[63]

> *Cities seeking to transfer the risk of underperforming parking assets could seek partnerships with vertiport developers.*

Cities seeking to transfer the risk of underperforming parking assets could seek partnerships with vertiport developers. Multi-story parking structures can provide necessary obstacle clearance and ground transportation connections to the surrounding community, two qualities highly sought after by an AAM industry focused on airport transfers and urban air taxi services.

Parking facilities are already proving to be attractive to the AAM industry as vertiport sites. In December 2025, Joby announced it plans to develop 25 vertiports at parking structures across the United States in partnership with Metropolis Technologies, the largest U.S. parking operator.[64] Details of this partnership have not been made public, but the focus appears to be on private-use vertiports for Joby's urban air mobility service.

For larger public-use vertiports capable of serving multiple AAM operators, publicly owned parking facilities may prove to be attractive site locations. This is especially true of existing multimodal hubs that support mass transit, given that transit ridership—and park-and-ride demand—remains depressed throughout the United States. Worth watching in this space are FBOs seeking to develop vertiports capable of supporting multiple AAM services. Notably, VertiPorts by Atlantic in October 2025 hired real estate advisory firm Cushman & Wakefield to identify site locations and help secure ground leases for future vertiport projects, with a specific focus on large urban parking structures.[65]

63 "Five Years Removed: The Ripple Effects of the Pandemic on Parking," Towne Park, 6 Jan. 2025. https://www.townepark.com/pandemic-impact-parking/ (30 Dec. 2025).

64 Press Release, "Joby, Metropolis Announce Partnership to Develop 25 Vertiport Sites Across the U.S.," Joby Aviation, 18 Dec. 2025. https://ir.jobyaviation.com/news-events/press-releases/detail/167/joby-metropolis-announce-partnership-to-develop-25 (30 Dec. 2025).

65 Press Release, "Atlantic Aviation taps Cushman & Wakefield as Collaborator to Advance Next-Generation Urban Air Mobility," Cushman & Wakefield, 9 Oct. 2025. https://ir.cushmanwakefield.com/news/press-

Government owners of underutilized parking facilities could seek out concessionaires that would design, build, finance, operate, and maintain new vertiport facilities as well as finance, operate, and maintain existing parking facilities. This would diversify revenue sources and could support more-favorable concession agreement terms for both parties. Given uncertainty in both the AAM and parking markets, it is not clear whether traffic and revenue forecasts would be sufficiently robust to support revenue-risk DBFOM concessions. However, even an availability-payment concession could provide valuable risk-transfer benefits to taxpayers if the underlying public parking facility is in need of rehabilitation.

5.4 POLICY BARRIERS TO AAM INFRASTRUCTURE RISK MITIGATION

Despite the potential win-win nature of public-use vertiport P3 concessions, there may be barriers to these transactions. Local land-use regulation may limit heliports—and by extension, vertiports—from being sited at economically viable locations. State lawmakers could move to establish uniform state vertiport policy to eliminate these ambiguities. Local construction codes that do not contemplate the complexities of adding vertiports and associated infrastructure on top of parking structures may create permitting challenges. Technical assistance from public- and private-sector experts could address AAM knowledge gaps at local agencies.

Despite the potential win-win nature of public-use vertiport P3 concessions, there may be barriers to these transactions.

But perhaps the most significant barrier relates to the ability of public partners to make use of P3 procurement methods in the first place. State and local procurement codes vary significantly in the ability of public agencies to enter into P3s. With respect to vertiports specifically, a small number of states have enacted legislation that would restrict P3 procurements.

release-details/2025/Atlantic-Aviation-taps-Cushman--Wakefield-as-Collaborator-to-Advance-Next-Generation-Urban-Air-Mobility/default.aspx (30 Dec. 2025).

As was highlighted in Section 4.3, four states have enacted "open access" vertiport laws: West Virginia in 2022,[66] Oregon in 2023,[67] Utah in 2023,[68] and Arkansas in 2025.[69] This legislation was developed by Supernal, an AAM subsidiary of Hyundai Motor Group that paused activities in 2025. While ostensibly aimed at promoting AAM competition at public-use vertiports, these bills were strongly opposed by the rest of the AAM industry, which formed the AAM Prepared coalition under the auspices of the Association for Uncrewed Vehicle Systems International to advocate for alternative policies that would not unduly limit AAM infrastructure development.[70]

While Supernal's internal turmoil is likely to limit its near-term lobbying activities in the states, model legislation largely based on its approach was adopted by the American Legislative Exchange Council (ALEC). The ALEC model bill, "Open Access to Vertiports Act," was adopted in 2023.[71] It remains officially recommended policy by the organization, suggesting that Supernal's "open access" approach to vertiport policy may persist even without continued corporate advocacy.

The ALEC model bill states that its principal policy goal is to "promote the development of a network of vertiports that will provide equitable access to citizens of this state who may benefit from advanced air mobility operations for cargo and passenger service, and to avoid any vertiport monopolization or discrimination."[72] It aims to accomplish this goal by:

1. "Funding the planning for and construction of public-use vertiports, with any funding appropriated by the Legislature";
2. "[E]ncouraging local zoning and other land use authorities to ensure an adequate number and a varied location of vertiports to serve citizens throughout the state"; and

66 West Virginia House Bill 4827 (2022).

67 Oregon House Bill 2834 (2023).

68 Utah Senate Bill 185 (2023).

69 Arkansas House Bill 1976 (2025).

70 Press Release, "AUVSI Launches Multi-State 'AAM Prepared' Advocacy Campaign to Help States Prepare for Future of Advanced Aviation," Association for Uncrewed Vehicle Systems International, 6 Dec. 2023. https://www.auvsi.org/news/auvsi-launches-multi-state-aam-prepared-advocacy-campaign-to-help-states-prepare-for-future-of-advanced-aviation/ (31 Dec. 2025).

71 "Open Access to Vertiports Act," *Model Policy*, American Legislative Exchange Council.

72 Ibid.

3. "[P]romoting competition and equity of access by prohibiting the grant of an exclusive right to one or more vertiport owners and operators or to vertiport operators at one or more vertiports."[73]

The third policy principle is the most problematic, with the operative legislative text stating:

> *A political subdivision of this state shall not exercise its zoning and land use authority to grant or permit an exclusive right to one or more vertiport owners or operators and shall use such authority to promote reasonable access to advanced air mobility operators at public-use vertiports within the jurisdiction of the subdivision.*[74]

The notion that such a prohibition is necessary to ensure AAM competition and open access at public-use vertiports reflects a misunderstanding of the definition of "public use." Under federal law, any public-use airport, including a vertiport, must be "available for use by the general public without a requirement for prior approval of the owner or operator."[75] This means that a public-use vertiport owner or operator may not favor one or more AAM service providers by denying access to competitors.

Accordingly, the principal purpose of the ALEC model bill—to prevent "monopolization or discrimination" at public-use vertiports—is unnecessary given longstanding federal aviation law.

Accordingly, the principal purpose of the ALEC model bill—to prevent "monopolization or discrimination" at public-use vertiports—is unnecessary given longstanding federal aviation law. However, the prohibition on granting "an exclusive right to one or more vertiport owners or operators" would appear to prohibit a local government from contracting with any private company to develop or operate a given public-use vertiport. This would preclude public-private partnerships to design, build, finance, operate, and maintain public-

73 Ibid.
74 Ibid.
75 14 C.F.R. § 157.2.

use vertiports, and thereby prevent project risk transfer from taxpayers to private concessionaires.

Another provision of the ALEC model bill related to "vertiport safety" also reflects a misunderstanding of federal aviation law. The provision in question states:

> *Each vertiport subject to this article shall submit a vertiport layout plan to the administrator of the Federal Aviation Administration in the form and manner determined by the administrator, and no operations may be conducted at the vertiport until such layout plan is approved*.[76]

This may appear reasonable at first glance. However, federal law for activating vertiports generally requires mere notification of FAA, after which FAA will conduct an aeronautical study and issue a determination on potential effects of this action on the safe and efficient use of the airspace, and safety of persons on the ground.[77] These determinations are purely advisory. Public-use facilities are subject to an additional layer of notification and obstruction evaluation, although obstruction hazard determinations are not formal layout plan reviews.

Unless the facility is federally funded, it likely will not be subject to any formal layout approval process. There is no mechanism by which FAA can approve or deny an airport layout plan, including a vertiport layout plan, that is not funded by federal grants or specifically implicates another FAA "zone of interest."[78] As a result, this ALEC model bill would generally prevent AAM operations from public-use vertiports because the bill mandates compliance with a process that FAA is likely to lack authority to carry out.

Taken together, these two provisions would prevent the development and operation of most public-use vertiports, especially using procurement methods that could limit taxpayer exposure to project risk. They thus contradict the stated intent of the ALEC model bill to "promote the development of a network of vertiports." Therefore, the ALEC model needs to be revised to meet its goals.

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76 "Open Access to Vertiports Act," *Model Policy*, American Legislative Exchange Council.

77 14 C.F.R. Parts 157.

78 Initial Instructions to Airports District Offices and Regional Office of Airports Employees Regarding Airport Layout Plan Reviews and Projects Potentially Affected by the FAA Reauthorization Act of 2024, *Memorandum*, Federal Aviation Administration, 3 Oct. 2023. https://www.faa.gov/airports/planning_capacity/alp-approval-preliminary-instructions.

PART 6

CONCLUSION AND RECOMMENDATIONS

Advanced air mobility could usher in major improvements to the transportation of passengers and cargo. If AAM aircraft, operations, and pilots are successfully certificated by FAA over the next several years, commercial viability depends on the ability to scale adequate infrastructure along with the AAM fleet. However, placing large taxpayer-supported bets on as-yet unproven technology and services is not in the public interest.

As this report illustrates, managing the risks of AAM vertiport projects will be an ongoing challenge. State laws and local ordinances governing vertiport procurement can help or hinder risk management, so policymakers should take care to avoid counterproductive policies that would simultaneously transfer risk to taxpayers while increasing legal and market uncertainty for the nascent AAM industry.

At this early stage, policymakers should be focused on keeping their options open while establishing a flexible AAM infrastructure framework that can be adapted over time as technology and services evolve. A forward-looking, adaptable state AAM infrastructure legislative framework should contain four elements:

1. Define key AAM terms in statute, adopting federal definitions whenever possible to ensure uniformity. Examples include “advanced air mobility,” “powered-lift aircraft,” “electric vertical take-off and landing aircraft,” and “vertiport.”

2. Require state aviation agencies, usually housed within departments of transportation, to include vertiports in their state aviation system plans. These aviation system plan updates should consider the unique features and requirements of AAM aircraft, such as electric charging infrastructure.
3. Require state aviation agencies to designate an office or subject matter expert within the agency to serve as a resource for local governments seeking to understand AAM and associated infrastructure. This office or subject matter expert should publish and distribute guidance materials, as well as provide technical assistance as requested.
4. Prohibit local governments from enacting laws, regulations, or ordinances related to the operation and ownership of AAM aircraft and infrastructure.

Adopting these four AAM infrastructure policies would provide the early AAM industry with legal certainty on which to build their markets. Just as importantly, it would preserve public-private partnership procurement methods for vertiports that would shield taxpayers from undue project risk.

ABOUT THE AUTHOR

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Scribner's work focuses on a variety of public policy issues related to transportation, land use, and urban growth, including infrastructure investment and operations, transportation safety and security, risk and regulation, privatization and public finance, urban redevelopment and property rights, and emerging transportation technologies such as automated road vehicles and unmanned aircraft systems. He frequently advises policymakers on these matters at the federal, state, and local levels.

Scribner has testified numerous times before Congress at the invitation of both Democrats and Republicans on issues including highway revenue collection, traffic congestion management, public transit productivity, freight rail regulation, airport financing, and air traffic control modernization. He is a member of the Transportation Research Board's Standing Committee on Developments and Advancements in Transportation Technology Law.

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Scribner joined Reason Foundation after more than a decade at the Competitive Enterprise Institute, where he was a senior fellow in transportation policy. He received his undergraduate degree in economics and philosophy from George Washington University.