



INTEGRATING AAM INTO STATE LEGISLATION

NETC Webinar

March 6, 2024

AAM: Technology Push vs. Market Pull

MARKET PULL

This is a need for a product which comes from customer or market research to solve a need, or to compete with a product launched by another manufacturer.

TECHNOLOGY PUSH

This is when research and development of new technology drives new product development with innovative new products released to the market.

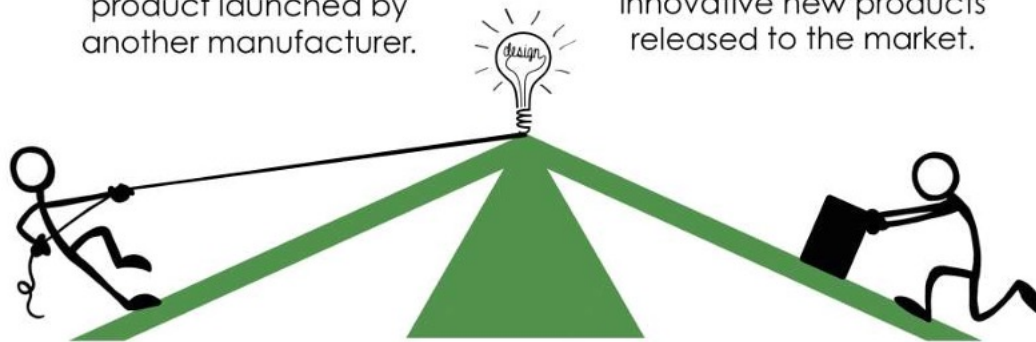


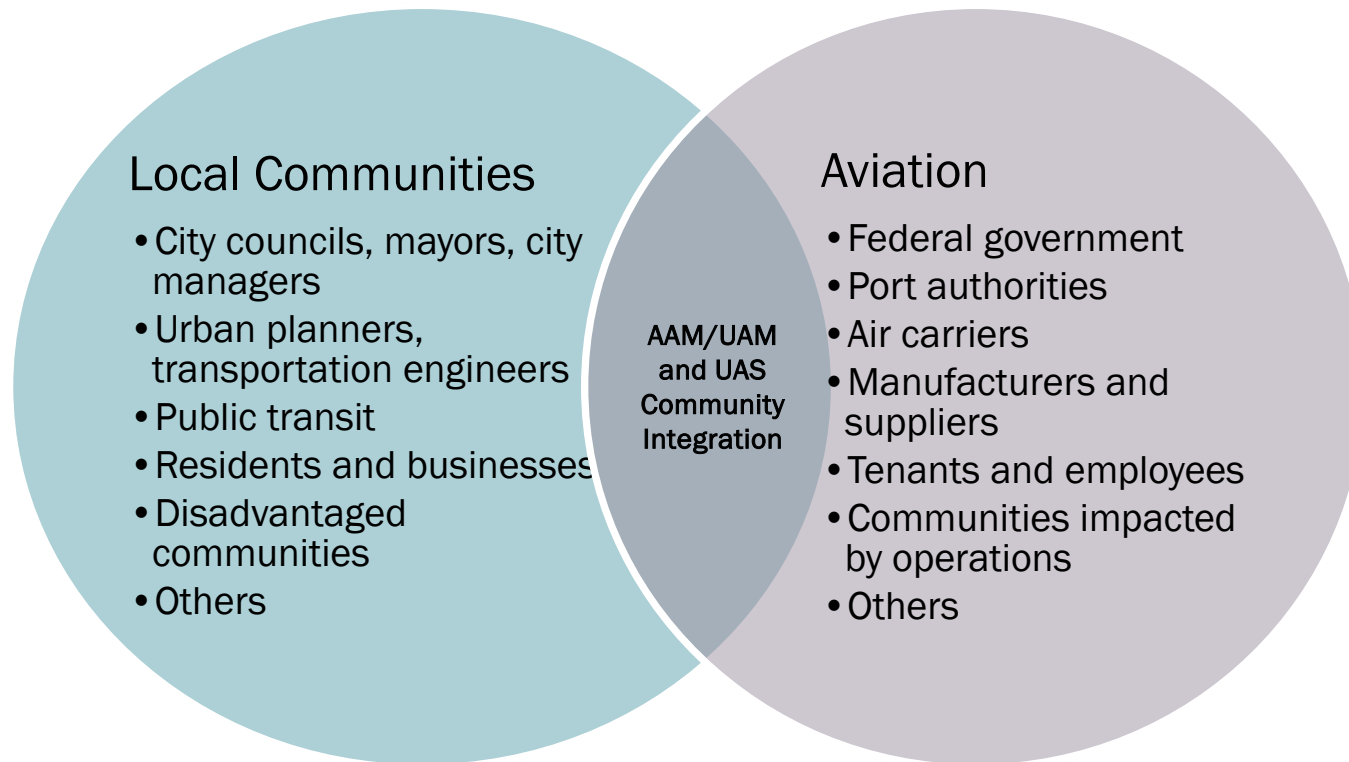
Image courtesy of GCSE Design & Technology

Advanced Air Mobility is a technology opportunity that communities can consider for their future growth and transportation needs.

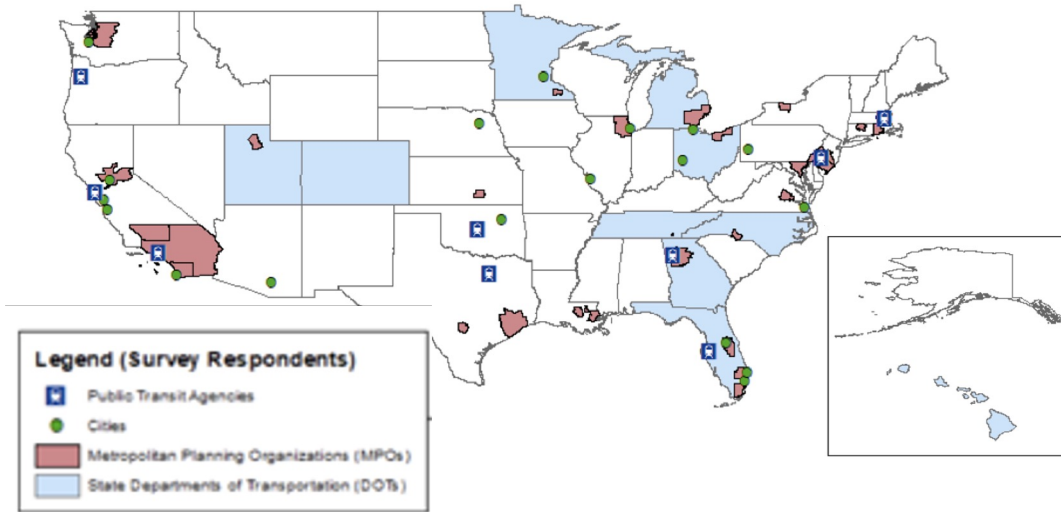
What are the needs that AAM might address?

How might AAM contribute to the overall transportation system?

Understanding Community Integration: The Convergence of Two Historically Distinct Disciplines



Study of Public Sector Perspectives on AAM



Key Concerns about AAM

- Cities: #1 Noise; #2 Equity
- MPOs: #1 Equity; #2 Safety
- State DOTs: #1 Equity; #2 Safety

Noise

- Cities and MPOs most concerned by the volume and time of day the noise occurs
- State DOTs more concerned by how the noise sounds

Equity

- Cities and MPOs most concerned with affordability and environment justice
- State DOTs most concerned with affordability and economic impacts of vertiports on neighborhoods

How will AAM be Integrated into Communities?

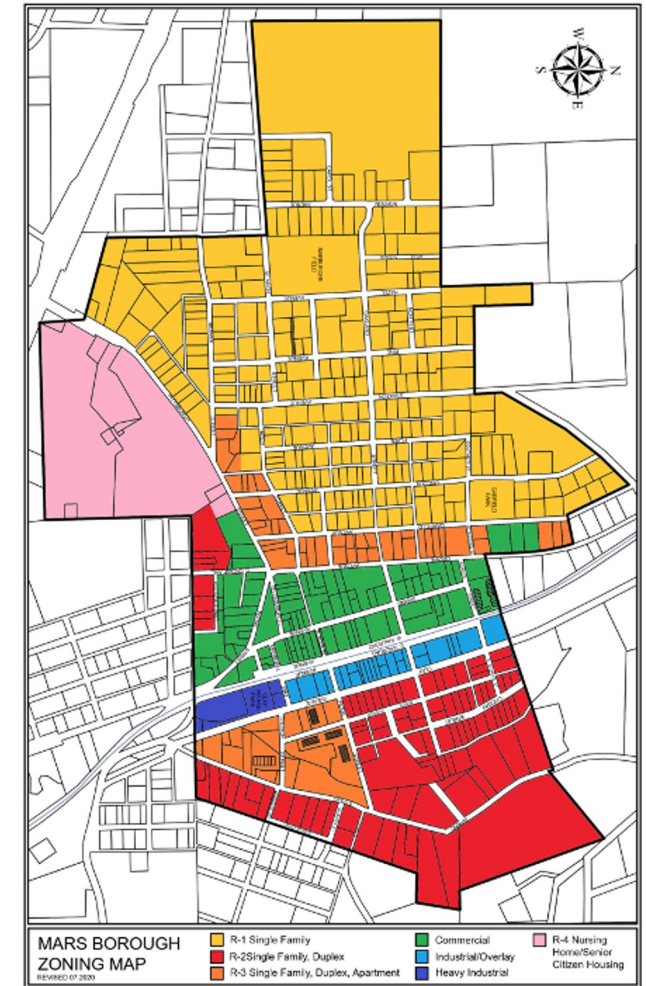
- ***Comprehensive Planning:*** Long-term goals and policies that communities use to guide development decisions
- ***Subdivision Regulations/Plans:*** To plan/incorporate AAM into master planned communities
- ***Infrastructure Plans:*** Utilities, transportation, and communications necessary to support vertiports
- ***Capital Improvement Plans:*** Used to plan and fund infrastructure investments, such as vertiports
- ***Growth Policies:*** To guide, encourage, or limit growth (e.g., height restrictions, urban growth boundaries, etc.)

Source: Cohen, Shaheen & Wulff, Planning for Advanced Air Mobility, 2024 (forthcoming).



Role of Local Land Use Planning, Zoning and Regulation

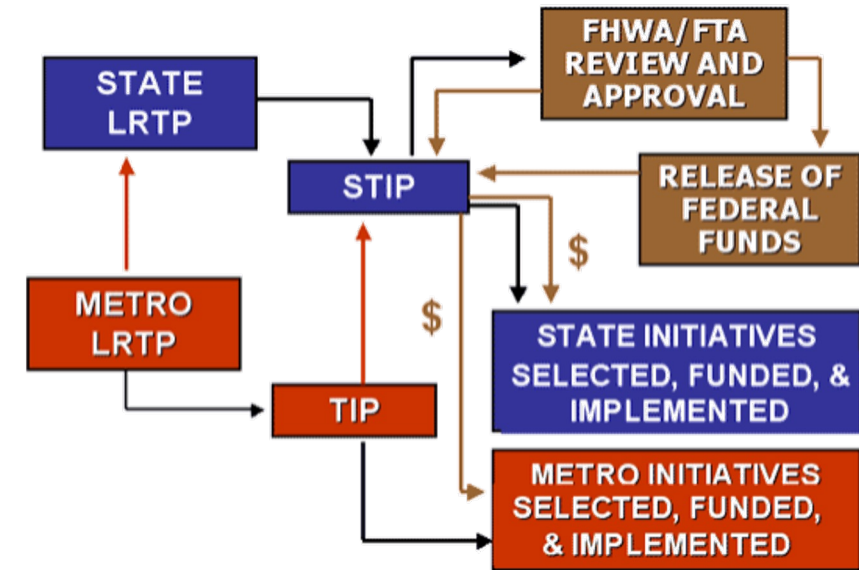
- **Zoning:** Designate locations for potential vertiports and/or manage land uses around vertiports; overlays could provide additional requirements/recommendations for specific land uses
- **Building Codes:** Local requirements for AAM buildings/vertiports
- **Housing Codes:** May have noise regulations that could impact the proximity of vertiports to residential land uses
- **Conditional Use Permits, Variances, Discretionary Review:** Processes that allow local governments to grant approvals for vertiports and/or attach specific conditions for approval
- **Code Enforcement:** Practices to enforce local regulations



Local and Metropolitan Transportation Planning

Metropolitan Planning Organizations (MPOs)

- Federally mandated and funded transportation policy-making organization for regions with more than 50,000 people
- Conducts regional planning (e.g., Regional Transportation Planning/RTP)
- Evaluates transportation alternatives
- Allocates transportation funding (e.g., Transportation Improvement Program/TIP)
- Facilitates collaboration among public agencies
- Engages residents and other stakeholders in the planning process



Some may have additional roles in growth, housing, public transit, air quality, and climate action policies

The intersection of airspace access and land use policy is key to AAM in communities

The location of the vertiports will have a significant influence over AAM corridor routing (where are Point A and Point B).

Land use surrounding vertiports has a large impact on safety and longevity as well: will need to protect the airspace so new buildings/towers don't obstruct.

In the AAM context, it's quite possible we may see cities develop policies/codes/design guidelines (or another approach) that:

- Expand affordability of AAM / UAM
- Ensure access for vulnerable populations
- Mitigate environmental and economic impacts
- Require high-frequency public transit as a condition for vertiport approval
- Create conditional use requirements (e.g, if someone wants to build a vertiport they have to agree to prohibit flights between 11PM and 6AM)

Legislative Priorities

State Transportation Committees

Metropolitan Planning Organizations

Regional Governments

County Governments – Airport land use commissions

Mayor, City Manager, City Councils

Port Authorities

Elected Officials

- Consider the transportation system as a whole and ensure that the various elements work together to achieve the community's goals
- Use technology to achieve those goals, not the other way around.
- Allocate resources to reflect transportation priorities and principles
- Fund local and regional planning efforts
- Consider land use compatibility in planning and funding infrastructure

The mission of the Urban Air Policy Collaborative is to develop a policy framework for the local implementation of advanced air mobility through the sharing of knowledge, discussion of issues, development of recommendations, and collaboration with peers through an ongoing program of workshops, presentations and conversations.

The UAPC has two programs – the Cohort and the Forum

The next UAPC Cohort begins October 5, 2023



Module 1: AAM Fundamentals Part 1: Kickoff, Introduction to AAM, and AAM Aircraft

Module 2: AAM Fundamentals Part 2: AAM Airspace, Regulatory Environment, Autonomy and Legal Considerations

Module 3: Integrating AAM into the Transportation Ecosystem: AAM Planning and Policy Framework, Multimodal Integration, and Equity

Module 4: Community and Environmental Impacts: Noise, Visual Pollution, Routes

Module 5: Market and Economic Forecasting

Module 6: Planning for AAM Part 1: Utilities and Energy; Community Engagement

Module 7: Planning for AAM Part 2: AAM at Existing Airports

Module 8: Planning for AAM Part 3: Vertiport Locations, Vertiport Ownership Considerations; Route Planning

Module 9: Planning for AAM Part 4: Roles and Responsibilities, Emerging Best Practices

CAMI's Resources



The Community Air Mobility Initiative presents:

AAM 101

An introduction to advanced air mobility for state and local decision makers

**August 2, 2022
SFO Museum**

located at SFO, just before and to the left of the security checkpoint entrance at Boarding A (boarding pass not required)

Presentations: 1:00-5:30 PDT
Followed by a networking reception

Registration:

Government Rate: \$75/person
General Rate: \$100/person
+CAMI members receive 25% discount


Registration available at communityairmobility.org

Event Sponsors:

A limited number of event sponsorship opportunities are available for \$1000 and include event logo recognition and two complimentary registrations.

Featured Topics:

- **Fundamentals of Advanced Aircraft Mobility**
 - Aircraft and Air Traffic Management
 - Community and Regional Use Cases
 - Legal and Regulatory Framework
 - Infrastructure Considerations
 - Markets and Opportunities
- **Integrating Advanced Air Mobility into Communities**
 - Equity Issues
 - Integration into Multimodal Transportation Systems
 - Community and Environmental Impacts
 - Planning for Advanced Air Mobility
- **Q&A with the presenters**
- **Open Discussion and Networking**




Community Benefits of Urban Air Mobility (UAM)

A brief description of potential benefits of UAM to cities and surrounding areas and how communities can prepare today

A resource prepared by:
The Community Air Mobility Initiative (CAMI)

Supporting the responsible integration of the third dimension at the state and local level.
Q1 2020 | A. M. Dietrich
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What is Urban Air Mobility (UAM)?

UAM uses three-dimensional transportation to better serve the needs of our communities.

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eVTOL Aircraft: What they are & why they matter

New electric vertical takeoff and landing (eVTOL) aircraft are enabling aviation to be more closely integrated with our communities

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National Aeronautics and Space Administration

Advanced Air Mobility Community Integration Considerations Playbook



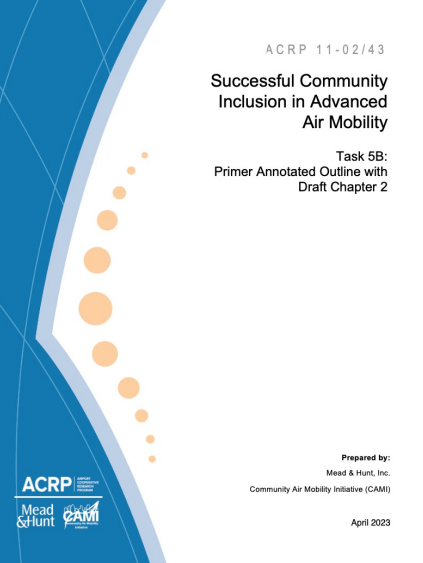
American Planning Association
Planning Advisory Service
Creating Great Communities for All

MTI Metropolitan Transportation Institute

PAS REPORT 606

PLANNING FOR ADVANCED AIR MOBILITY

Adam Cohen, Susan Shaheen, et al, and Yolanka Wulff, et al



ACRP 11-02/43

Successful Community Inclusion in Advanced Air Mobility

Task 5B:
Primer Annotated Outline with Draft Chapter 2

Prepared by:
Mead & Hunt, Inc.
Community Air Mobility Initiative (CAMI)

April 2023



CAMI Upcoming Events

- CAMI/ NREL Sustainable Aviation Energy Conference – April 1-3 at DFW Hilton. *Includes CAMI AAM 101*
<https://www.nrel.gov/workingwithus/sustainable-aviation-energy-conference.html>
- UAPC Cohort 2024A – Spring 2024
- UAPC Forums – throughout 2024
Planned topics include Data and Communications, Digital Policy, Planning, and Stakeholder Engagement



www.communityairmobility.org

Supporting the sustainable and responsible integration of advanced air mobility into our daily transportation needs through education, communication, and collaboration.

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