



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

©2020 Community Air Mobility Initiative



www.communityairmobility.org
contact@communityairmobility.org

Community Benefits of Urban Air Mobility

Well-integrated UAM benefits communities, from rural to urban, in many different ways



Urban Air Mobility (UAM) - or as it is starting to be more broadly referred to, Advanced Aerial Mobility (AAM) - is simply the use of aviation to address the daily transportation needs of our communities. Helicopters, general aviation, and regional airline travel have been providing forms of UAM/AAM for decades. New aircraft, which use electric propulsion that is safer, cleaner, and quieter than conventional engines, are being developed. Some of these new electric aircraft, known as eVTOL aircraft, take off and land vertically enabling them to operate at vertiports nestled within our cities and suburbs. New operational styles and applications for aviation are likely to emerge in the next 2-5 years and expand dramatically from there.

The zones of operations for UAM, enabled by these new aircraft, include city centers, suburbs to city commuting, edge city to (edge) city, rural access, and commercial hub airport access. Some of the main applications of UAM include airline style micro haul routes, air metro transit routes, on demand "air taxi" operations, airport shuttle services, and emergency services. As the technology matures and is deployed, new operational styles and applications will likely emerge, but based on the above, communities can expect to see multiple benefits from responsibly-integrated UAM:



Reduced need for vehicle traffic within urban core



Stronger connection of rural areas to urban opportunities



Reduced emergency response times



Increased utility of GA airport infrastructure



Increased range of access to the urban core



Additional disaster response capabilities



Additional transportation demand management options



Increased electrification for lower in situ emissions



Urgency-trip pairing with commuter transit



Elimination of transportation deserts



Workforce development and economic opportunities

Community Benefits of Urban Air Mobility

To be ready for the future, communities need to be planning today for flight tomorrow



To realize the full potential of UAM, communities need to be planning today for a future that includes this new type of aviation. When planning for UAM, noise reduction is just the tip of the iceberg. UAM planning presents opportunities to improve social equity, mitigate secondary congestion impacts (e.g., curb space below a vertiport), ensure electric grid capacity and potential upgrades, integrate with existing transit, mitigate the potential for urban sprawl, create multi-modal transportation solutions, anticipate legal and insurance issues, and prepare for the expected impact on current travel patterns. This is just the beginning of the conversation.

Thousands of eVTOL development flights have already been conducted and both the Federal Aviation Administration (FAA) and NASA have engaged in a serious way with this emerging industry. Industry standards are being written, policy guidance is being developed, and advanced research is being conducted that will make UAM not just a reality but a significant player in our communities in the next five to ten years.

Some things that communities can be doing today to prepare themselves for UAM:

- Gather data about today's transportation patterns, ambient noise landscapes, and weather
- Understand current airspace usage in their jurisdictions
- Review existing heliport and airport facilities for UAM suitability
- Begin identifying new vertiport location opportunities, both through new development and through partnership with existing infrastructure
- Begin stakeholder conversations (e.g., community leaders, business community) to provide information on UAM as well as understand their concerns
- Explore potential public/private partnership structures and opportunities for UAM
- Understand electric grid capacity and what needs to be done to facilitate broader transportation electrification, including UAM
- Identify their point person to lead the UAM conversation and open a dialogue with industry and the associations that are here to assist in this process

The Community Air Mobility Initiative (CAMI) provides resources for state and local decision makers in support of the responsible integration of UAM.

Please see www.communityairmobility.org for more information.