

# DRISI

CALTRANS DIVISION OF RESEARCH,  
INNOVATION AND SYSTEM INFORMATION

# Research Notes

Modal

NOVEMBER 2023

Project Title:  
Assessment of State Assets for AAM  
Integration and Development of  
State Workplan

Task Number: 4194

Start Date: May 1, 2023

Completion Date: April 30, 2024

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## Assessment of State Assets for AAM Integration and Development of State Workplan

The purpose of this study is to prepare a comprehensive summary of current state assets available to support the foundation of an aerial corridor transportation system and develop a 3 year workplan to establish rules to achieve outcomes beneficial to state residents.

### WHAT IS THE NEED?

The aviation sector has been undergoing a dramatic transformation in electrification and autonomous flight. A new generation of vertical/short take-off and landing (e-VTOL/e-STOL) aircraft will alter urban and regional aviation, providing new opportunities for passenger mobility, cargo and logistics, and emergency response. These new modes of transportation fall under the umbrella term of Advanced Air Mobility (AAM).

As a nationwide leader in aviation land use compatibility planning the Division of Aeronautics has a unique opportunity to continue that leadership as it explores the safe, sustainable, and equitable integration of AAM in its diverse "safe, accessible, low-carbon, 21st century multimodal transportation network."

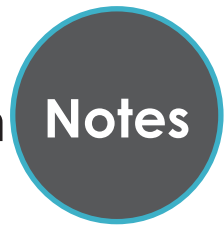
### WHAT ARE WE DOING?

Caltrans is seeking to incorporate AAM into its vision for a safe, accessible, low carbon, 21st century multimodal transportation network. As such, Caltrans is looking to:

- Evaluate the readiness of the State's transportation multi-modal network to incorporate AAM in a safe, sustainable, and equitable manner. This will involve documenting current state assets that could serve as a foundation for an aerial corridor transportation system and future assets being developed by the federal government, other state agencies, and business partners. Such assets could include, but are not limited to:
  - Physical structures and facilities such as airports, roadways, heliports, and land
  - Systems and communication networks such as those needed to support AAM flight operations; VTOL aircraft technologies developed by OEMs



DRISI provides solutions and  
knowledge that improves  
California's transportation system



- Information or resources such as federal and state policies and funding sources; and/ or Other state, regional, and local frameworks developed to prepare and support AAM implementation
- Develop a three-year work plan to advance AAM at a statewide level. Based on the results of the AAM readiness evaluation, establish a three-year work plan to advance AAM at a statewide level. The plan will help the State to coordinate, collaborate, and implement actions to achieve outcomes beneficial to State of California residents, including its aging, diverse, and equity-challenged communities, and those living throughout the state's diverse geography-from densely populated urban regions to remote areas challenged by terrain.

## WHAT IS OUR GOAL?

Caltrans is seeking to incorporate AAM into its vision for a safe, accessible, low carbon, 21st century multimodal transportation network.

## WHAT IS THE BENEFIT?

The FAA is including AAM and UAM as a priority in their planning efforts, which is organized around five areas of activity – aircraft, airspace, operations, infrastructure, and community. This has potential to forever change how people and goods move in California.

## WHAT IS THE PROGRESS TO DATE?

July 1, 2023 – September 30, 2023

Completed:

### Task 2: Literature Review

#### Goal/Objective:

The goal of the Literature Review is to situate the scope of work in relation to existing knowledge, and as such, it shall be relevant to the scope of

work, including the Three (3) Year Workplan

#### Deliverable Description:

A comprehensive Literature Review on the state of the Advanced Air Mobility, AAM multi-modal planning, airspace and land integration, regulatory framework, government initiatives, equity considerations, and future trends. The Literature

Completed:

### Task 3, AAM Aircraft Categories

#### Goal/Objective:

The goal of this Task is to provide a broad understanding of the types of AAM aircraft in development and their associated uses based on the current state of AAM Technology.

#### Deliverable Description:

A comprehensive listing of AAM aircraft categories and produce a table that provides:

- Specifications and operational parameters of size, weight, purpose (including passenger and cargo), landing/take-off requirements, and power sources/energy needs
- Footnoted information needed to interpret table content Example photographs or renderings of aircraft shall be included where available.
- Source information shall be documented and made available to Caltrans Contract Manager.

Completed

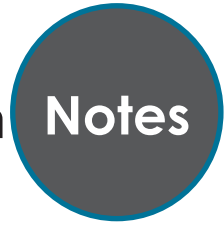
### Task 4, Infrastructure Readiness Requirements

#### Goal/Objective:

The goal of this Task is to provide a broad understanding of infrastructure needs associated with AAM.

#### Deliverable Description:

Based on current state of knowledge, federal guidelines, and other Task deliverables, the Contractor shall identify vertiport, vertipad, and runway requirements for AAM categories identified in Task 2. This deliverable shall be presented in text and in table that provides:



- Requirements including parameters such as dimensions, minimum offsets and clearances, and utility and communication infrastructure needs.
- Requirements that differentiate infrastructure based on capacity such as if serving as a hub, spoke, or point to point connection.
- Footnoted information needed to interpret table content
- Available photographs or renderings of vertiport or vertipad examples. Documented assumptions.

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