

# Vertiport Design Standards for Advanced Air Mobility

**Presented to: REDAC's  
Sub-committee on Airports**

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**Date: August, 26 2020**



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# Research Scope

- Investigate vertical takeoff and landing (VTOL) aircraft technologies and determine the maturity of each technology.
- Research will focus on VTOL aircraft that are <7000 lbs. and <9 passengers. Larger VTOL aircraft will be considered, but will not be the focus.
- Use vehicle performance data to aide AAS-100 develop vertiport design standards and guidance.
- Infrastructure research will focus on:
  - Landing area design and geometry
  - Approach/ departure paths
  - Lighting
  - Load Bearing requirements
  - Taxiway design and marking
  - Aircraft parking
  - Electric propulsion and charging stations
  - Noise requirements



# Research Approach

- **Industry Request for Information (RFI)**
- **Division Broad Agency Announcement (BAA)**
- **Engage with Industry Stakeholders**
  - NASA Advanced Air Mobility National Campaign (formerly Grand Challenge)
  - Outreach to aircraft manufacturers, commercial operators, airfield planners, heliport developers, FAA personnel, safety and ARFF experts, airport authorities, and engineers.
  - Other lines of business within FAA



# Industry RFI

- From April 3, 2019 to October 31, 2019, the FAA posted an RFI seeking information from industry regarding VTOL aircraft design and specifications, concepts of operations, infrastructure design, and takeoff and landing profile.
- Only nine responses to the RFI.

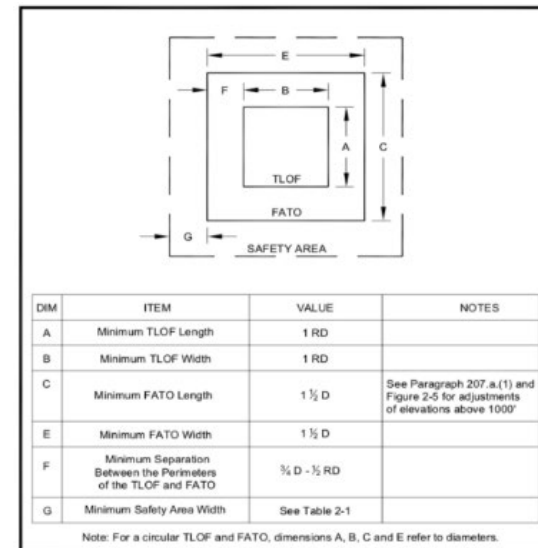
	Aircraft Design and Specifications	Concept of Operations	Infrastructure Design	Takeoff and Landing Profile
RFI Responder #1	✓	✓	✓	✓
RFI Responder #2	✓	✓		
RFI Responder #3	✓			
RFI Responder #4	✓	✓		✓
RFI Responder #5	✓			✓
RFI Responder #6		✓		✓
RFI Responder #7		✓		
RFI Responder #8	✓	✓	✓	
RFI Responder #9	✓	✓	✓	✓



# Engage with Industry Stakeholders

## NASA National Campaign

- The goal of the National Campaign (NC) is to “...promote public confidence and accelerate the realization of emerging aviation markets for passenger and cargo transportation in urban, suburban, rural, and regional environments.”
- ATRD has aided NASA in creating the design of a prototype vertiport and vertipad test beds for the NC.



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# Engage with Industry Stakeholders

## Outreach and Participation

- **Actively participate and engage with industry to be aware of technology needs and advancements**

## FAA Lines of Business (LOB)

- **Attend meetings and collaborate with other LOB within the FAA to maintain communication and knowledge of progress across the agency**

