



FAA Briefing on Ensuring Safety of Novel Aircraft Designs, Technologies, and Infrastructure Panel

Abby Smith Deputy Executive Director FAA UAS Integration Office

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# Advanced Air Mobility (AAM) Certification Strategy

- AAM is not a single technology, but rather a collection of new and emerging technologies in aviation, particularly in new aircraft types
- The FAA is taking a risk-based approach in certifying AAM aircraft
- This approach involves applying existing airworthiness standards where the risks posed are similar to traditional aircraft
- The FAA will use proven methods for ensuring the safety of complex systems





## **Tailoring Certification Requirements**



Certification Basis (21.17) and Means of Compliance



**Recent Examples:** 

• Small Drones

• E-VTOL Aircraft

• Trend Towards

Autonomy

• Electric Propulsion

• Advanced Flight Controls

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# **AAM Integration**

AAM aircraft integrate a number of unique technologies into one new type of aircraft:

- Electric engines
- Multiple distributed and reconfigurable rotors
- Vertical and conventional takeoff and landing capabilities
- Integrated propulsion and flight control laws





AAM operations introduce new operational challenges to the airspace:

- Simplified vehicle operations
- Remote pilot / autonomous control with PAX on board
- Operation in dense urban centers
- Energy supply infrastructure
- Integration of traffic management with existing aircraft





### **Center for Emerging Concepts and Innovation**

#### **CECI's Mission: Facilitate the Safe Introduction of Innovative Products**

- Early Innovation Engagement (EIE)
- Understanding cross-cutting agency issues and developing strategies to address them





- Outreach and partnerships with industry and NASA
- Informing Research and Development and future Consensus Standards activities



# Looking Ahead

- AAM integration is a holistic effort. The FAA is coordinating the development of certification requirements with airspace, infrastructure, and operational requirements.
- We encourage cities, municipalities, and AAM operators to get involved now to prepare for the future.







## Questions?







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