#### INFO-CENTRIC NATIONAL AIRSPACE SYSTEM

# Operations & Airspace Integration

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### **Airspace Guiding Principles - AAM**

#### Position Statement:

• The FAA will rely on the existing regulatory framework to support industry in enabling AAM operations. The FAA may utilize waivers and exemptions as necessary.

#### • Scope:

• Near-term AAM passenger and cargo carrying operations certificated under the current regulations.

#### • FAA Actions:

- The initial near-term AAM airspace operations will utilize existing Visual Flight Rules (VFR) procedures and low altitude VFR routes in the current NAS.
- The AAM aircraft design characteristics and their equipage will likely require deviations from certain airspace regulations governing low altitude VFR routes in controlled airspace.
- Use of a combination of waivers and LOAs with FAA headquarters and local facilities to establish procedures to enable these operations.



### **UAM Operations** *Evolution*

UAM Specific

within bounds of current ATM

Initial AAM/UAM Operations

- Within the bounds of current • ATM environment
- Requires no changes to rules and regulations
- Pilot on board
- Leverages existing routes and procedures
- New vehicles will be certified to operate in the current environment
- Have required equipage and meet • performance requirements to operate in the current airspace

ATM

Low



#### UAM Flight *Ecosystem*



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## **Original UAM Concept Overview**

- UAM Operations defined as the transport of people or goods from one vertiport to another using UAM Corridors
- UAM Corridors exist in all Airspace Classes
- Any aircraft using or crossing a UAM Corridor participates in the UAM Ecosystem by obtaining a confirmed Operational Intent from a PSU
- Aircraft operating within a UAM Corridor must meet the performance and participation requirements of the UAM environment



While a good starting point, UAM Corridors in all airspace classes with a requirement to fully participate becomes restrictive



#### FAA ConOps 2.0 Engagement

- Key Differences from ConOps 1.0
  - Corridors implemented only as needed on an airspace-by-airspace class basis
  - Varied participation requirements for crossing traffic depending on airspace class
  - Alternate mitigation strategies for crossing traffic
- Impacts to non-UAM Reduced overall impact
  - Reduced participation requirements for crossing UAM Corridors
  - Fewer UAM Corridors required overall
  - More interaction between UAM/non-UAM outside UAM Corridors
- Impacts to UAM Greater Flexibility
  - More flexibility in UAM Corridor design
  - Allocation of greater tactical separation responsibilities to UAM Ecosystem
  - More interaction between UAM/non-UAM outside UAM Corridors



#### **Guiding Principles** Categories

- Cooperative Traffic Management Operations Responsibilities of operators in their role to safely conduct operations
- **Regulatory Authority** Roles and responsibilities of the FAA
- **Airspace Organization** Attributes of the airspace where cooperative traffic management operations may occur
- Fully Integrated Information Environment Information environment and key attributes necessary to effectively achieve the future state vision of information exchange between stakeholders
- **Scalability** Principles associated with the scalability of the airspace and systems necessary to accommodate the types and tempo of operations envisioned in the future



### **AAM/UAM separation future?**

- In high density operational areas ATC provides separation unless there are strategic provisions e.g. VFR corridor
- Strategic provision can limit the requirements on tactical separation – airspace, design capacity balancing, synchronization
- The separation value depends of the separation provider
  - If operations are strategically de-conflicted and we still need higher density do we need a new flight rule **AFR** in which the "system" is the separation provider?

