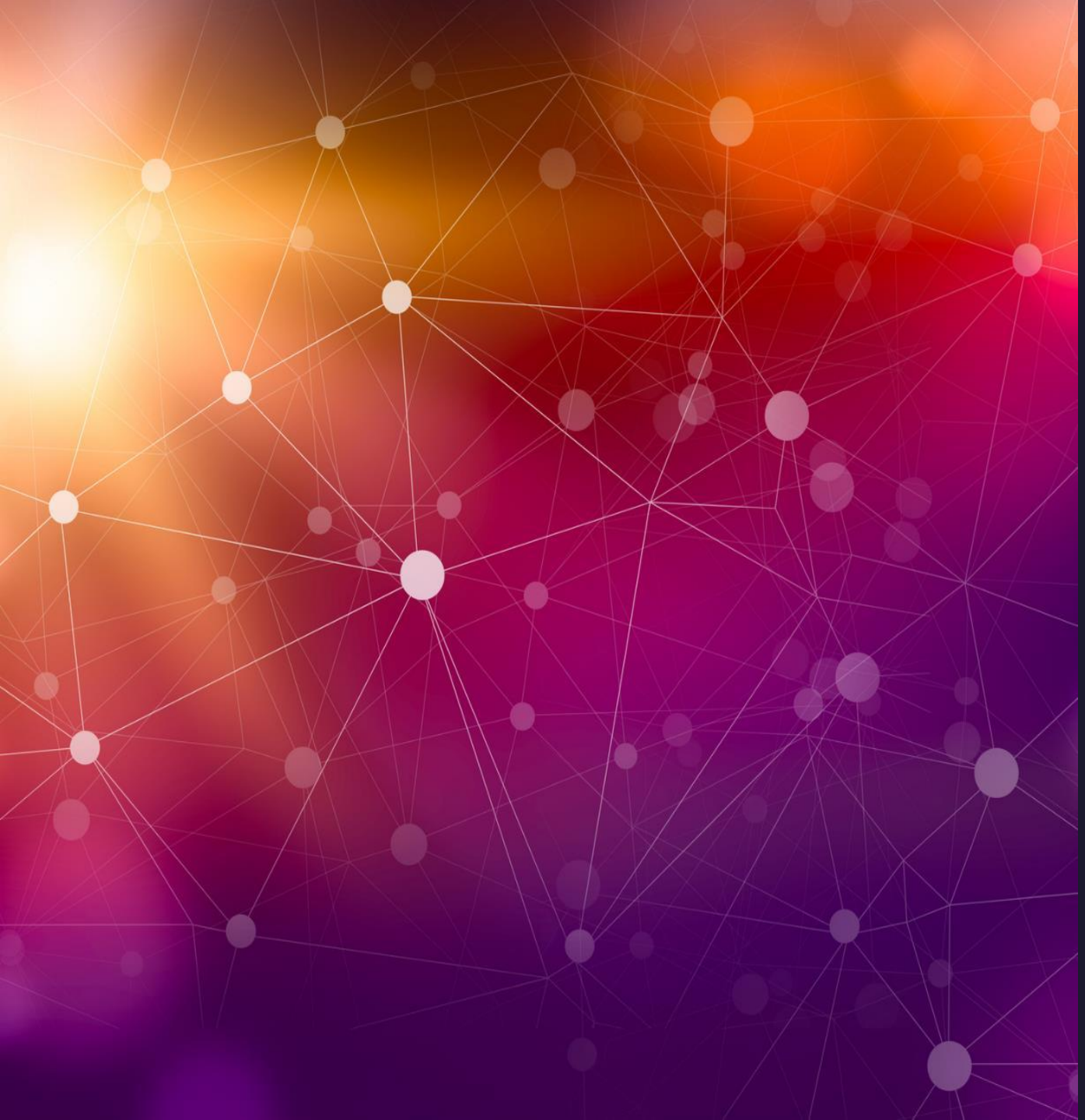


NASA's Research & Development in Airspace Management for Drones, Air Taxis, and Beyond

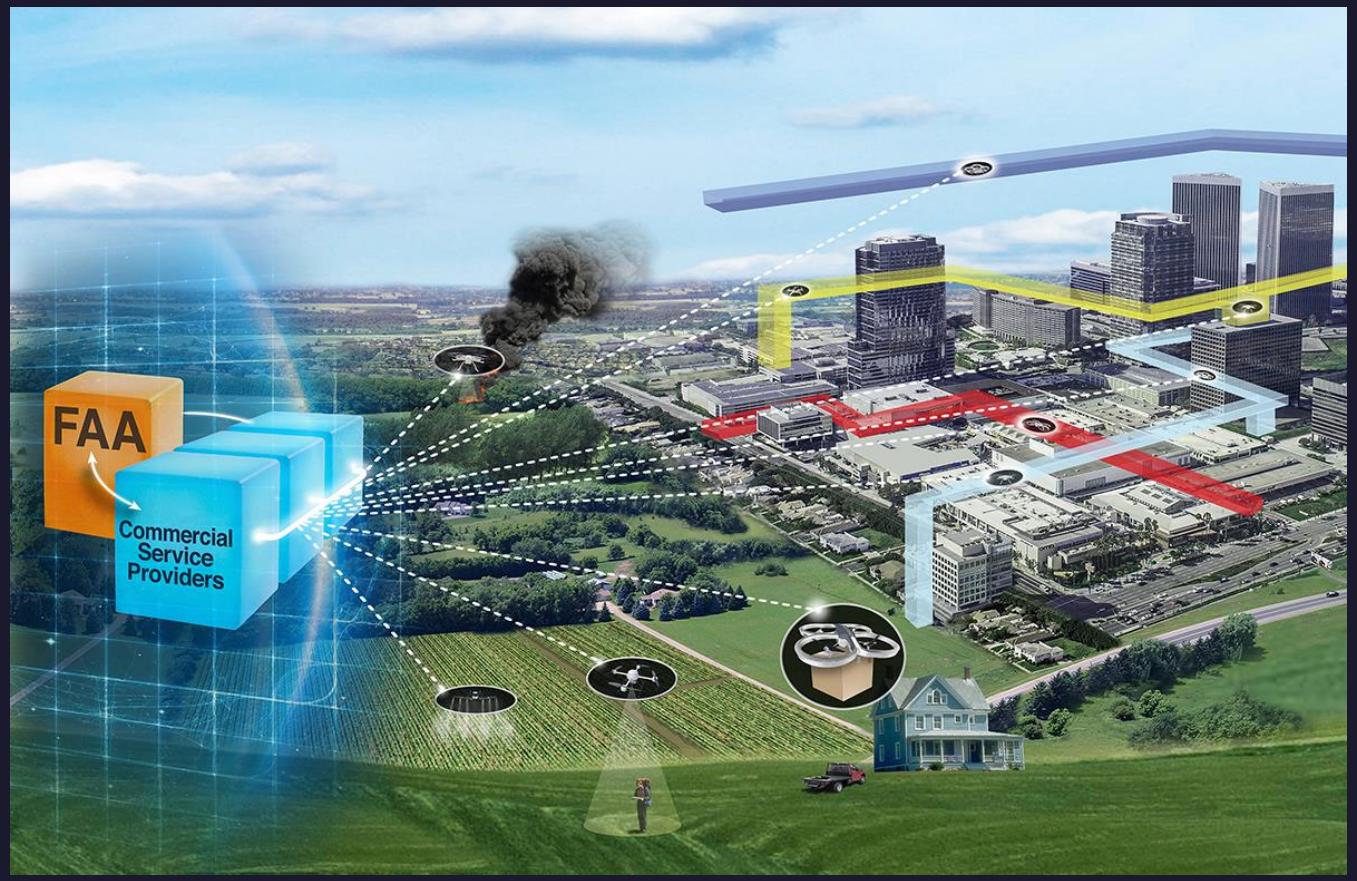
Jeffrey Homola

NASA Ames Research Center

Background

- National Airspace System extremely safe
- NASA has a rich history of contributions in Air Traffic Management
- New entrants emerging
- NASA on the leading edge of driving innovations in airspace management and integration

UAS Traffic Management (UTM)

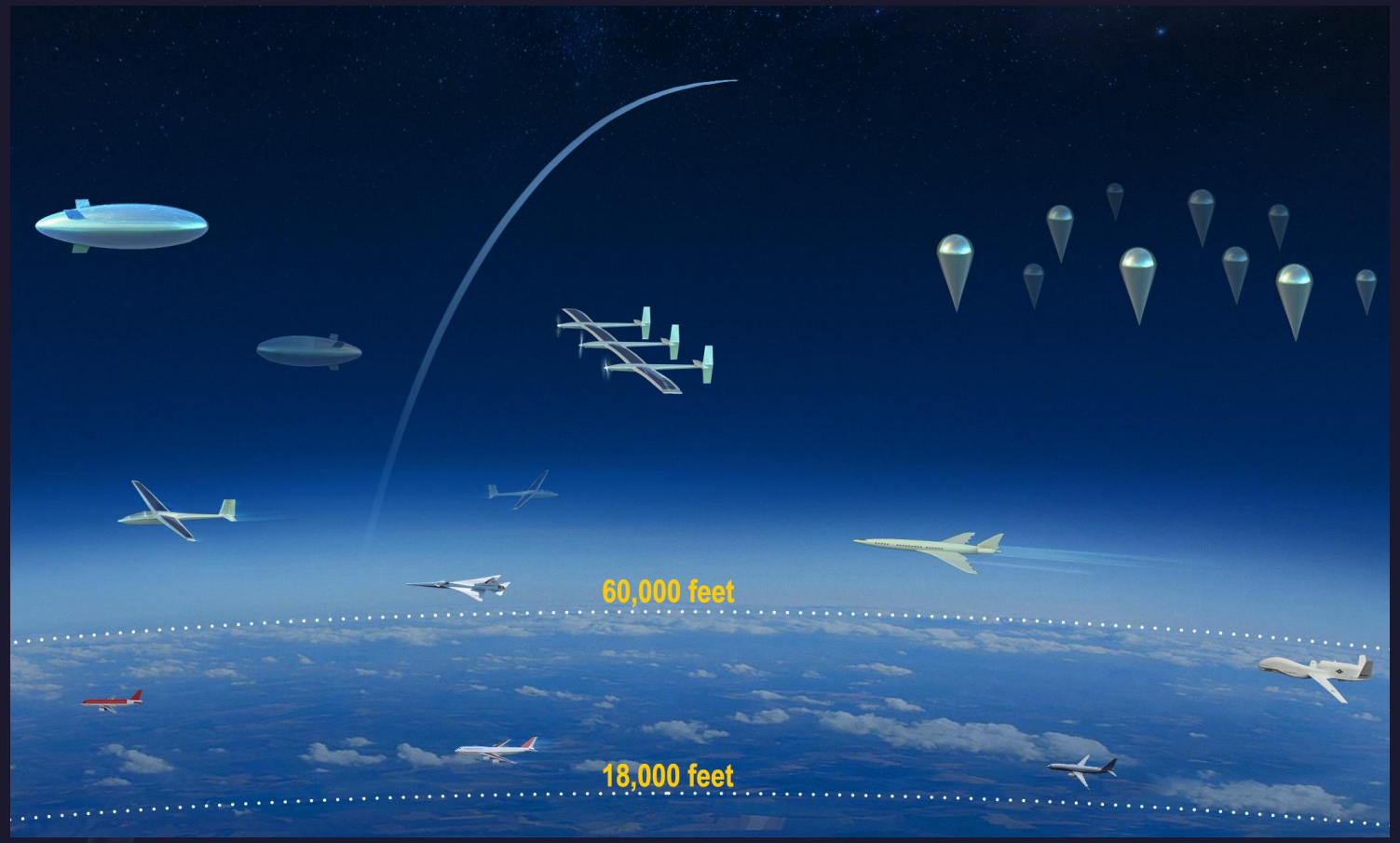


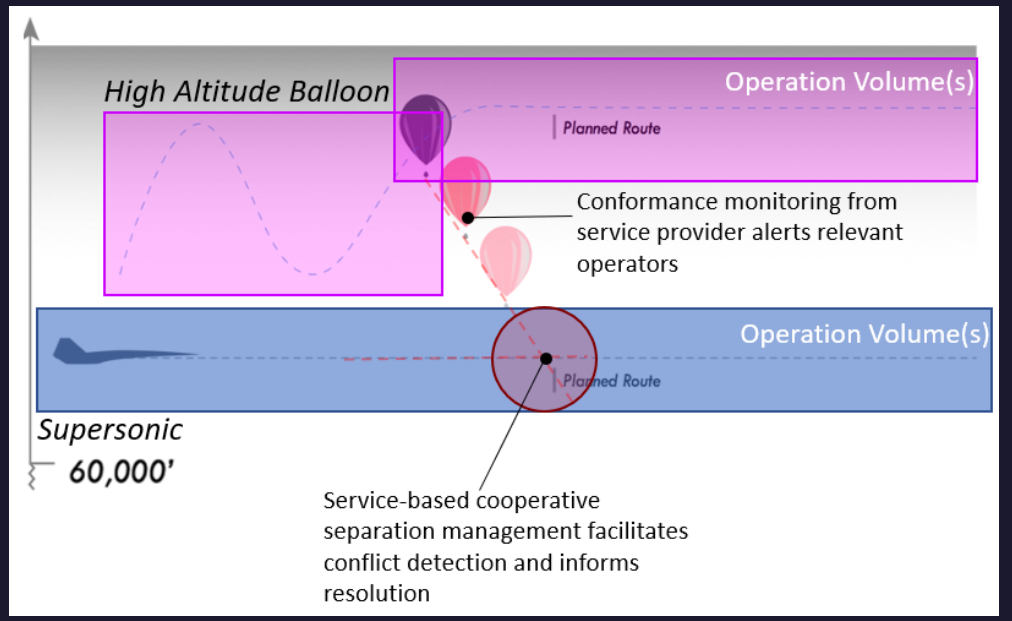
- Many use cases and benefits of drones in our airspace
- How do we make sure they can all operate together safely?

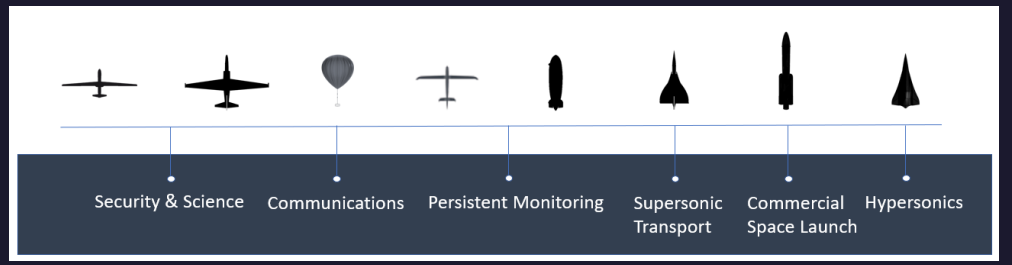
Advanced Air Mobility (AAM)

- Advances in technology have made dynamic regional transport an achievable reality
- How do we integrate at scale?

Upper Class E Traffic Management (ETM)

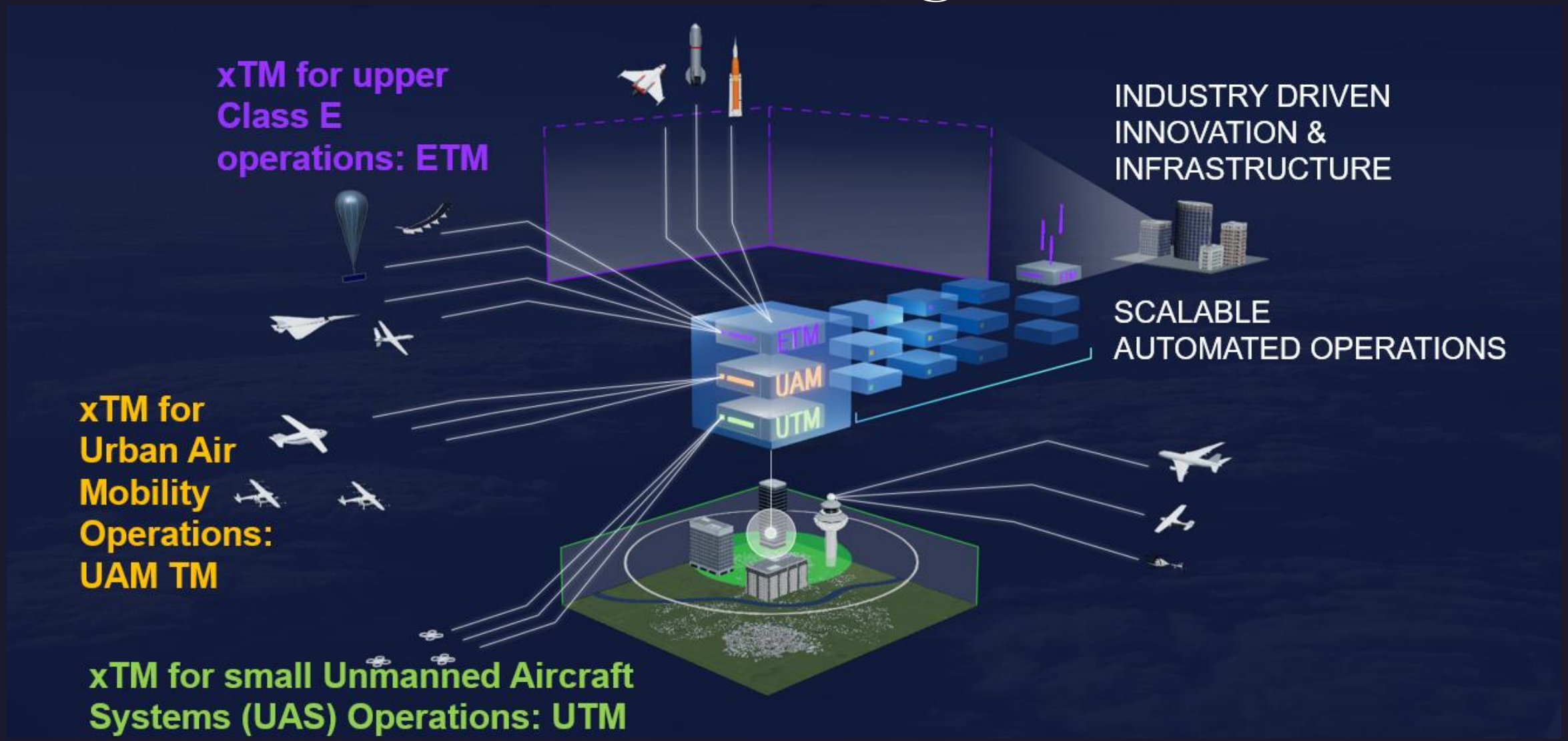






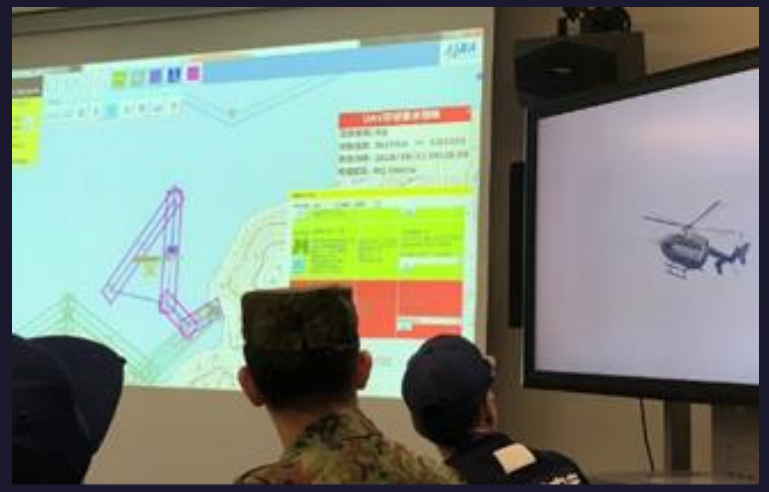
- Demand is growing for use of the stratosphere
- Air Traffic Services are limited

Extensible Traffic Management



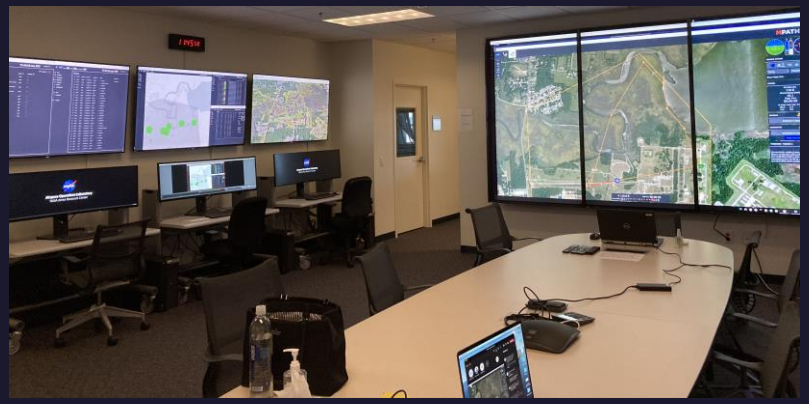
Public Good

- Great deal of focus on public good aspect of airspace management and integration
- Some examples:
  - Disaster response
  - Wildfire Management
  - High-Altitude remote sensing
  - Medical transport
  - Search and Rescue
  - …

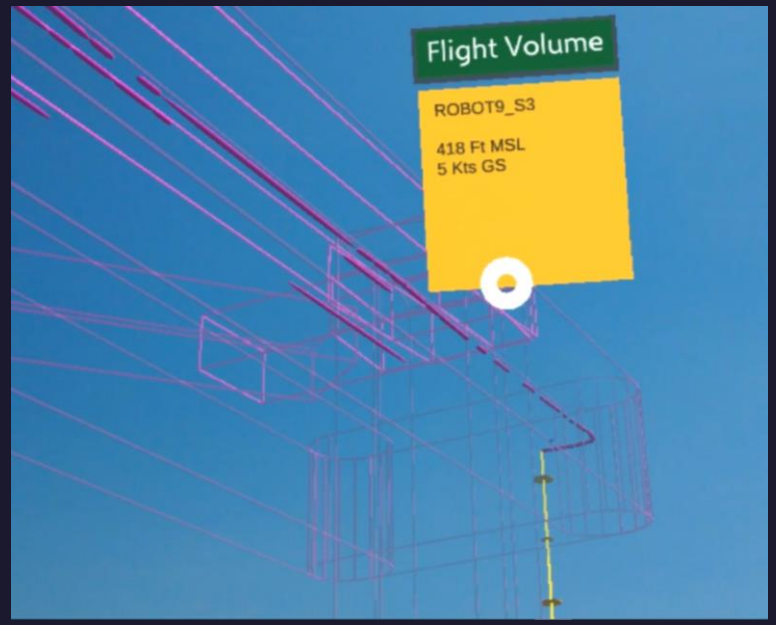


Human Systems Integration (HSI): Facilities and Visualizations

NASA Ames Research Center on the forefront for the development and research of HSI and supporting visualization

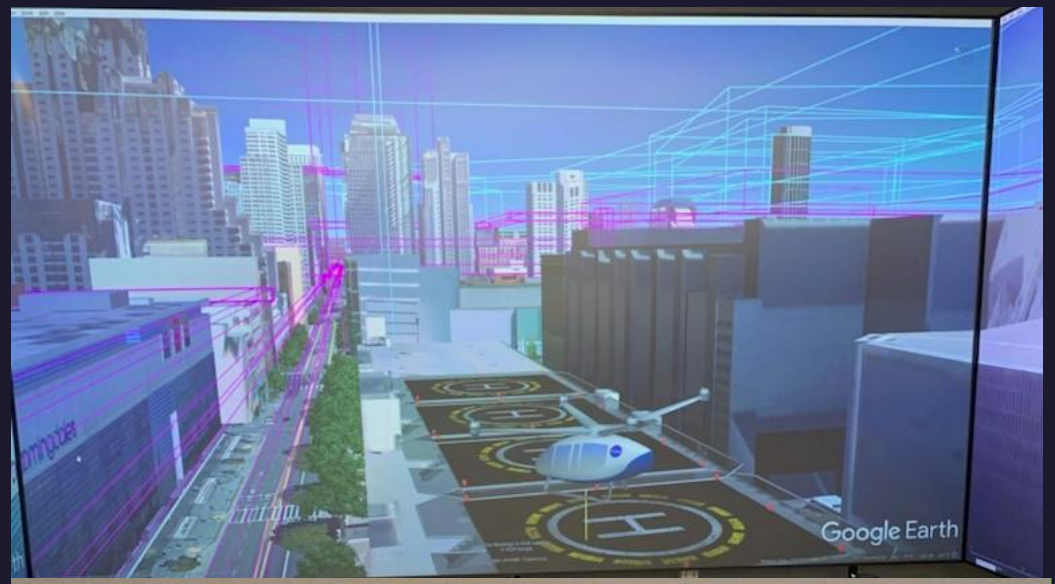


Human Systems Integration: Facilities and Visualizations



- UTM offered many opportunities for exploration of visualizations
  - Data integration
  - Mobile devices
  - Distributed viewing
  - AR/VR
  - 2D/3D
  - Mission Operations Center

Human Systems Integration: Facilities and Visualizations (*to be continued…*)



Thank You

Email any questions or comments to:

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