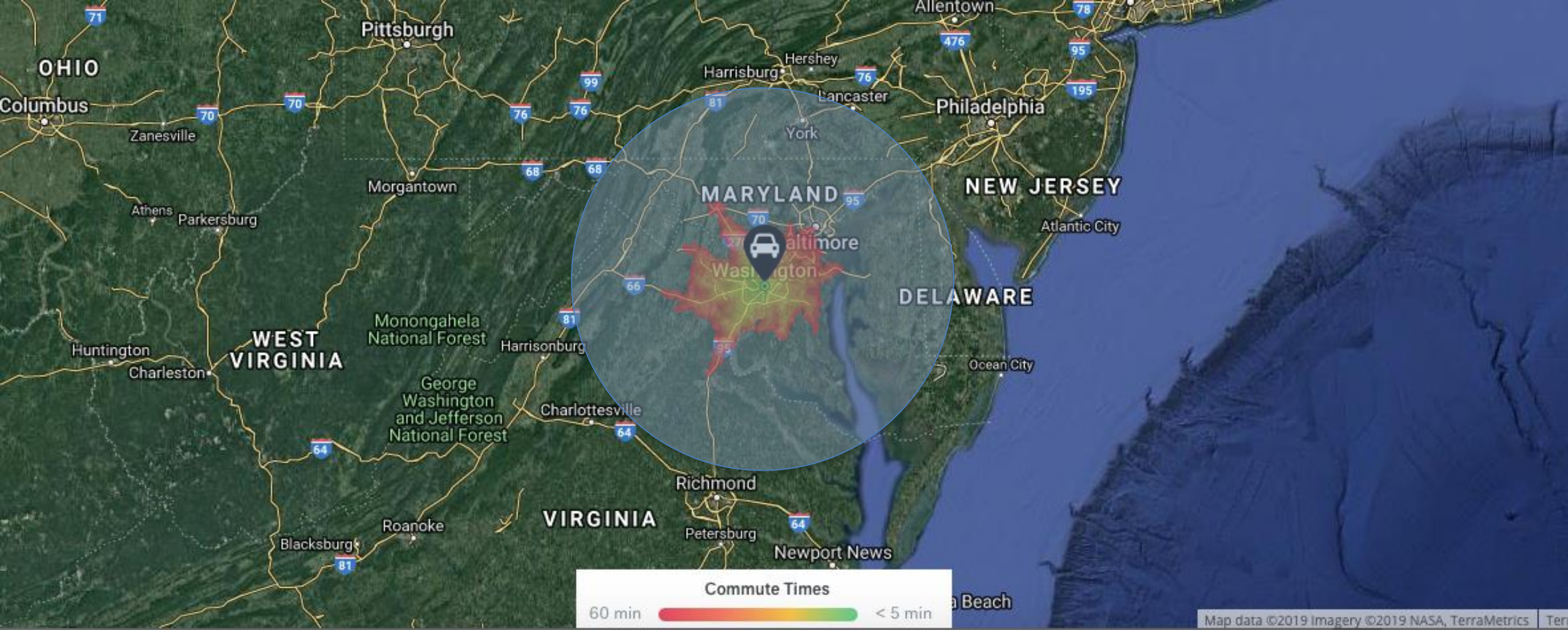




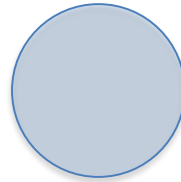
NASA Advanced Air Mobility (AAM)
Urban Air Mobility (UAM) and Grand Challenge
AIAA



Aerial Reach – 30 Minute Journey



24 hr weighted average
60 minute driving commute
Washington, DC.

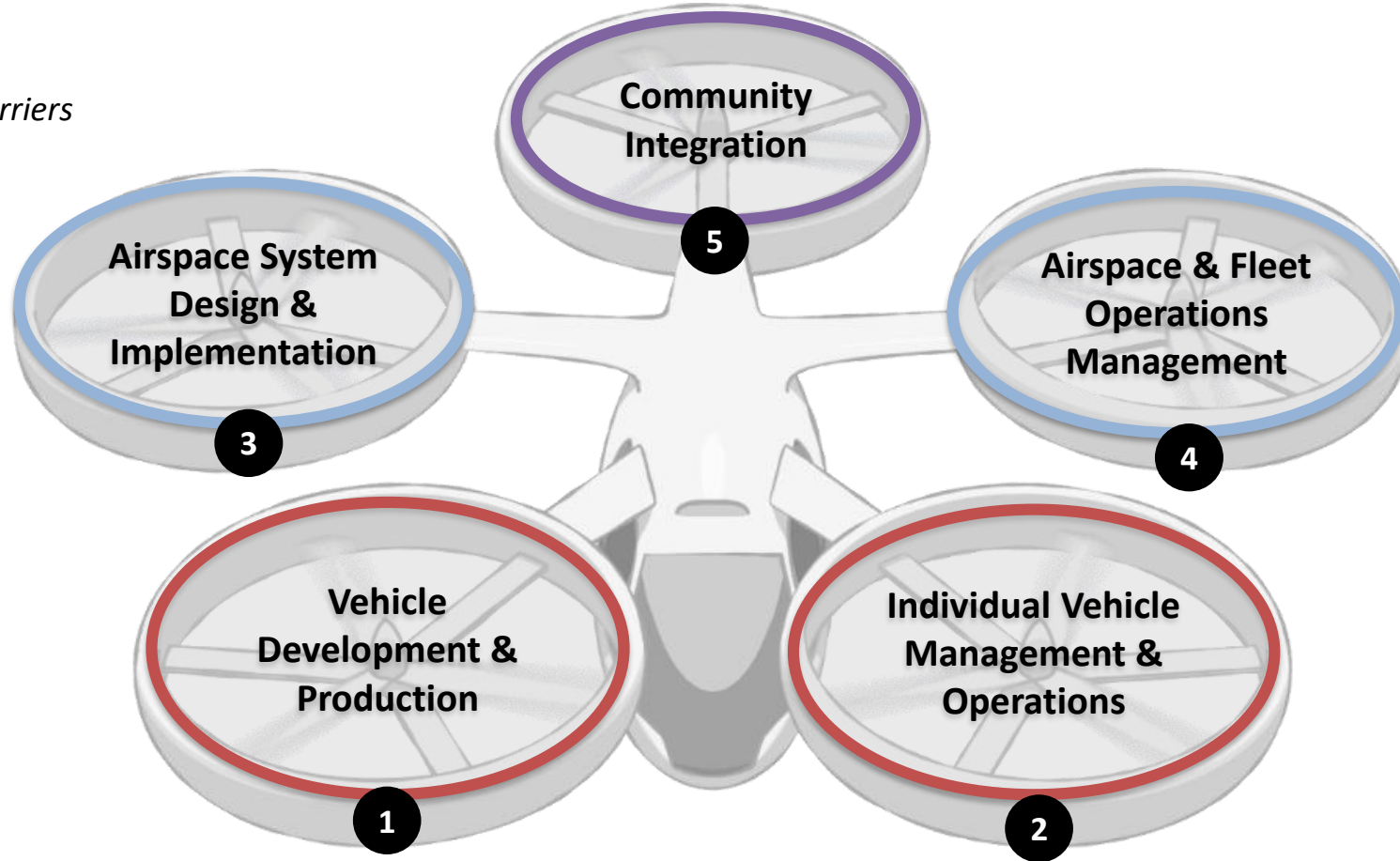


Any time of day
~30 minute (~75mi radius) Aerial Commute
Washington, DC.



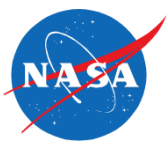
UAM Vision and Framework

- *Vehicle Barriers*
- *Airspace Barriers*
- *Community Integration Barriers*

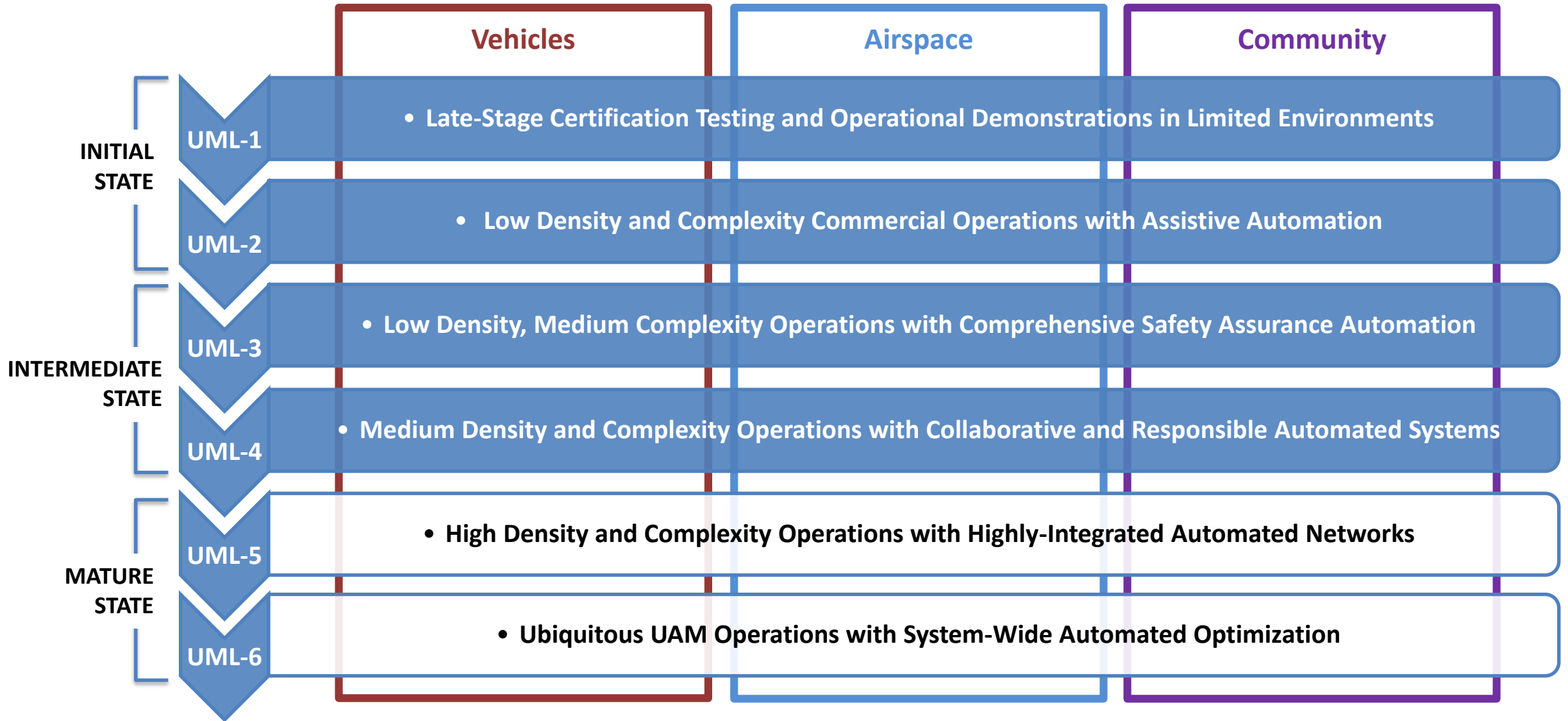


Urban Air Mobility (UAM) Vision

Revolutionize mobility around metropolitan areas by enabling a safe, efficient, convenient, affordable, and accessible air transportation system for passengers and cargo



UAM Maturity Levels (UML*) Relation to GC Series



UAM Framework and Barriers
(GC Series Focus)

* UML indicates operational system capability, not "technology readiness"



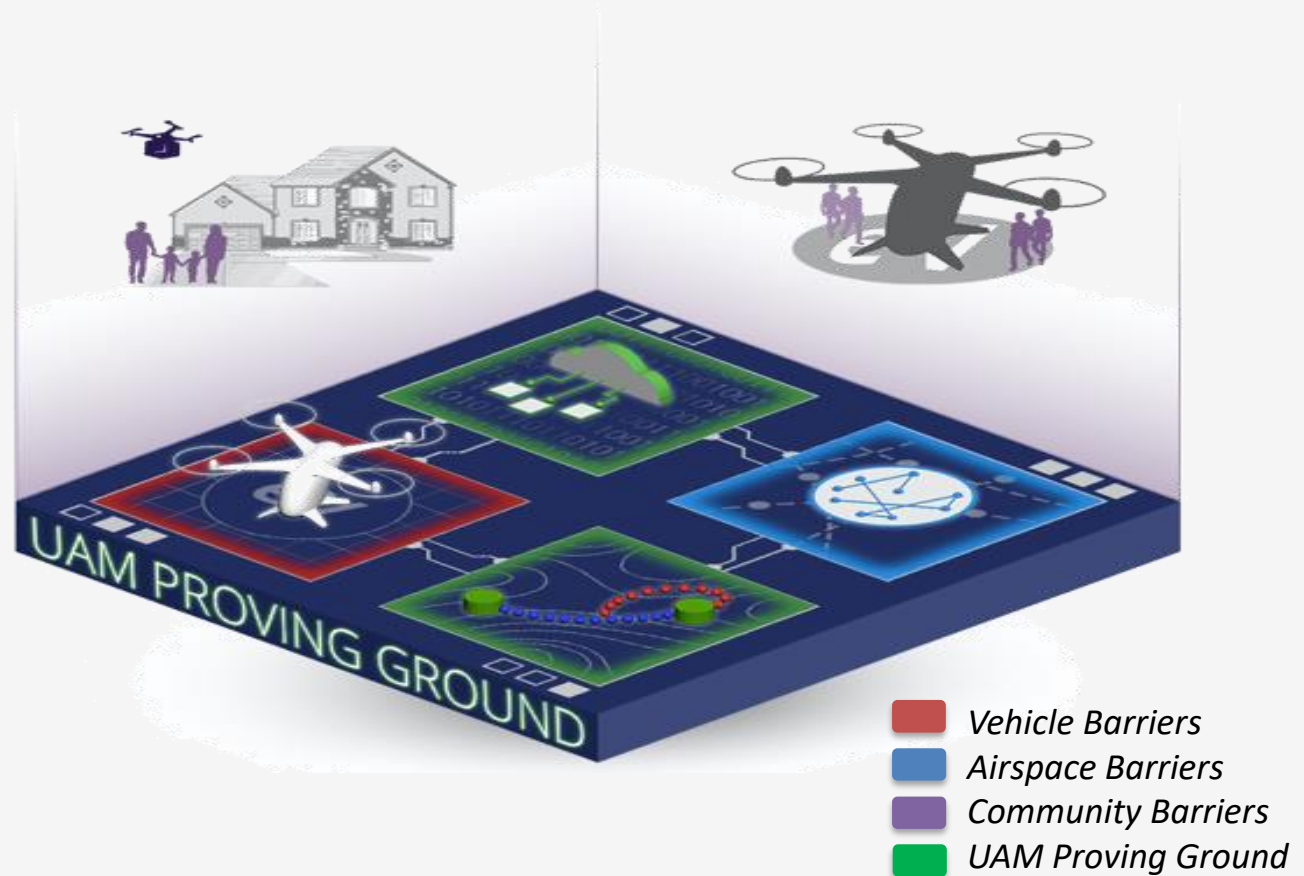
The Initial UAM “Grand Challenge”

Goal

Support requirements and system development for scalable, commercial UAM through integrated demonstrations of realistic operational scenarios

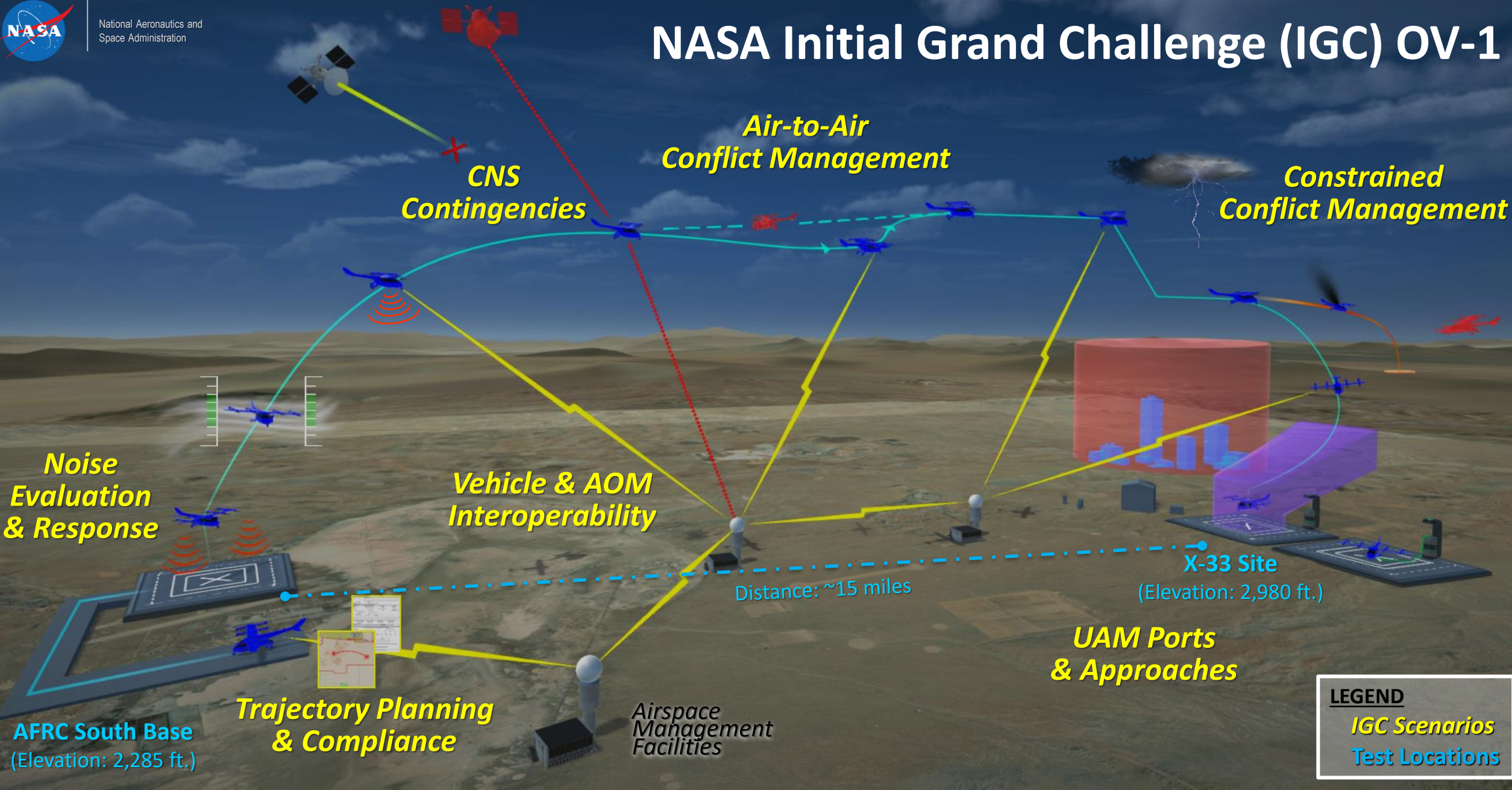
Objectives

1. Accelerate Certification and Approval
2. Develop Flight Procedure Guidelines
3. Evaluate the CNS Trade-Space
4. Demonstrate an Airspace Operations Management Architecture
5. Characterize Community Concerns





NASA Initial Grand Challenge (IGC) OV-1



Note: IGC implementation leverages open range model; OV-1 specific to NASA range location