

# Roadmap for Integrating Unmanned Aerial Vehicle (UAV) Operations Routinely in Civil Airspace

**Matt DeGarmo**

**703-983-7320 • [degarmo@mitre.org](mailto:degarmo@mitre.org)**

FAA MOIE

**MITRE  
Technology  
Program**

# Problem

- **UAV flights in civil airspace are highly restricted while demand for routine access is expanding.**
- **UAVs represent a wildcard to the aviation industry and the air traffic system.**



# Objective

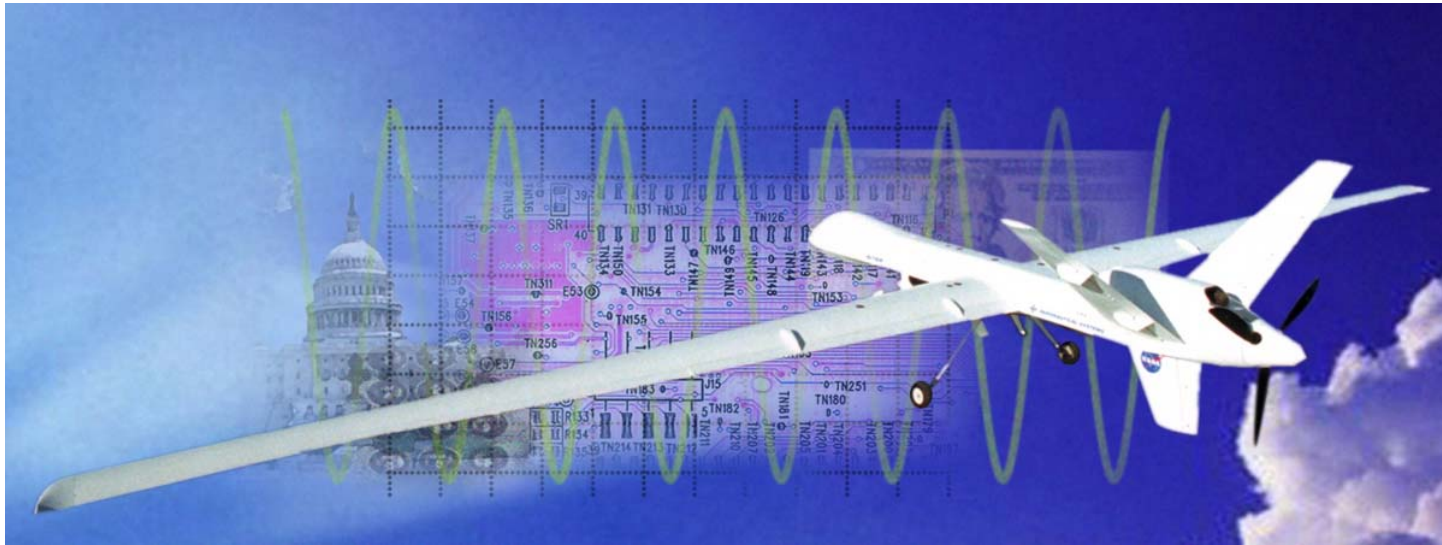
- **Frame the issues relating to the integration of UAVs in civil airspace**
- **Develop UAV operational concepts and analyze for benefits and risks**
- **Engage MITRE in the UAV community**
- **Explore solutions**

# Activities

- **Develop an issues framework from a total system perspective**
- **Analyze research and technologies relating to UAV integration**
- **Collaborate with government and industry initiatives**
- **Develop operational concepts and assess potential impacts**

# Highlight

## Total system perspective on UAV integration issues and opportunities



# Highlight

## Prospective UAV applications and the future National Airspace System



# Impacts

- **Communicates understanding of UAV integration issues and opportunities**
- **Identifies gaps in existing initiatives**
- **Supports government/industry consensus**
- **Expands MITRE knowledge of UAV technologies and applications**
- **Facilitates the creation of research ideas**

# Future Plans

- Visualize and simulate UAV operational concepts
- Determine potential impacts on airspace and traffic flow
- Research novel approaches to safely managing UAV operations
- Continue to support government and industry UAV initiatives

