



The Mid-Atlantic Aviation Partnership (MAAP)

Virginia and New Jersey's
UAS Test Site

UAS Test Site



- The FAA Modernization and Reform Act of 2012 required the FAA to establish a program to integrate UAS into the NAS at 6 Test Ranges.
- Test Range selection is based on
 - Geography
 - Climate
 - Ground infrastructure
 - Research needs
- Program Requirements
 - Maintain Safety and Efficiency of the NAS
 - Safely designate Airspace for integrated manned and unmanned flight operations
 - Develop Certification Standards and ATC procedures
 - Address Civil and Private UAS
 - Coordinate with the NextGen Program
 - Verify Safety and Navigation Procedures



Our Team



- Includes Academia, Government, Industry, Economic Development Agencies, and Non-Profit Organizations
- Is led by Virginia Tech and Rutgers University
- Is diverse with the right Experience and Expertise
 - UAS Manufacturers and Providers
 - UAS Research and Development
 - UAS Flight Operations
 - NAS Integration and Operations
 - Air Traffic Control
 - Scientific, Engineering, and R&D on Advanced Technologies
 - Modeling & Simulation
 - Manned and Unmanned Aircraft Pilots
 - FAA NextGen Program



Our Team



CORE TEAM

ACADEMIA: Virginia Tech; Rutgers, the State University of New Jersey; National Institute of Aerospace; Liberty University; New Jersey Institute of Technology; Rowan University; The Richard Stockton College of NJ; Virginia State University

GOVERNMENT: Commonwealth of Virginia, State of New Jersey, New Jersey Department of Transportation, New Jersey Economic Development Authority, South Jersey Transportation Authority, Virginia Small Aircraft Transportation System Lab (VSATS), Virginia Department of Aviation

INDUSTRY: Aerosim Flight Academy; American Aerospace Advisors, Aurora Flight Sciences, B4Team, Engility, Enterprise Engineering Services, Hi-Tec Systems, KSI Video, NAVMAR Applied Science Corporation, Pentagon Performance, Sentinel Robotic Solutions, Sunhillo, UAV PRO

ECONOMIC DEVELOPMENT ORGANIZATIONS: Choose New Jersey, Eastern Shore Defense Alliance, Fredericksburg Regional Military Affairs Council, Hampton Roads Military Federal Facilities Alliance, Virginia Economic Development Partnership

RESEARCH PARKS: Next Generation Aviation Research and Technology Park

SUPPORTERS

177th Fighter Wing, ADP, Aeroprobe Corporation, American Aerospace, Atlantic City Electric, Avid LLC, Avineon, Axcel, Basic Commerce and Industries Inc., Bosh Global Services, Business Emergency Operations Center Alliance, Center for Innovative Technology, CiT, CORNET Technology, The DDL Group, DELTA Resources Inc., DRS Technologies, Eagles Nest Airport, Empire Development, Engility, General Dynamics, Global IsosCom LLC, Gryphon Technologies, Hampton Roads Partnership, I2 Sentinel Associates Inc., ITA International, John H. Northrop & Associates Inc., Kite Technical Services Inc., Klett Consulting Group Inc., Ksi Video, L3, Lockheed Martin, Mosaic ATM Inc., Mutualink, NASA Goddard Space Flight Center Wallops Flight Facility, NASA Langley Research Center, Naval Surface Warfare Center Dahlgren Division, NC4, New Jersey Manufacturers Insurance Company, New Jersey Resources, NextGen Aeronautics, Nexus Technology Services LLC, NJEdge.Net, NovaTech, On Course Solutions LLC, Orbis, Phoenix Factor, Port Authority of New York and New Jersey, Rumpf Associates International, SANstor, Sauer Incorporated, Selex Galileo Inc., SimVentions, Sonalysts, South Jersey Gas, Southwestern Virginia Technology Council, Spatial Integrated Systems Inc., Strategic Aeronautics, Strategic Insight, TeCC, Techsburg, TechOpp Consulting Inc., TQI Solutions, URS, Utopia Compression, Virginia Association of Chiefs of Police, Virginia National Guard, Virginia Sherriff's Association, Virginia Tech Corporate Research Center, Valkyrie Enterprises LLC, Vanilla Aircraft

Our Mission



The ***safe and efficient*** integration of Unmanned Aircraft Systems (UAS) into our National Airspace System



Our Commitment



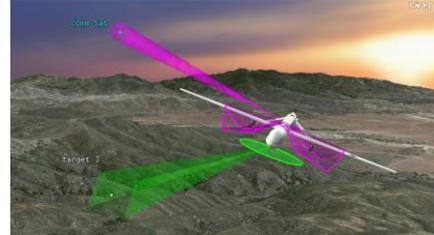
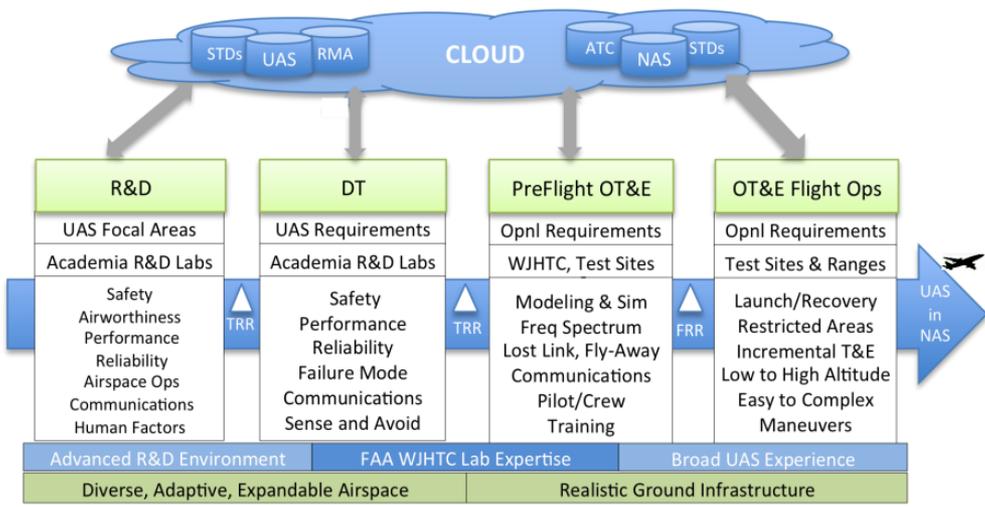
- Safety First!
- Best Value
- Collaboration
- Responsiveness





Our Approach

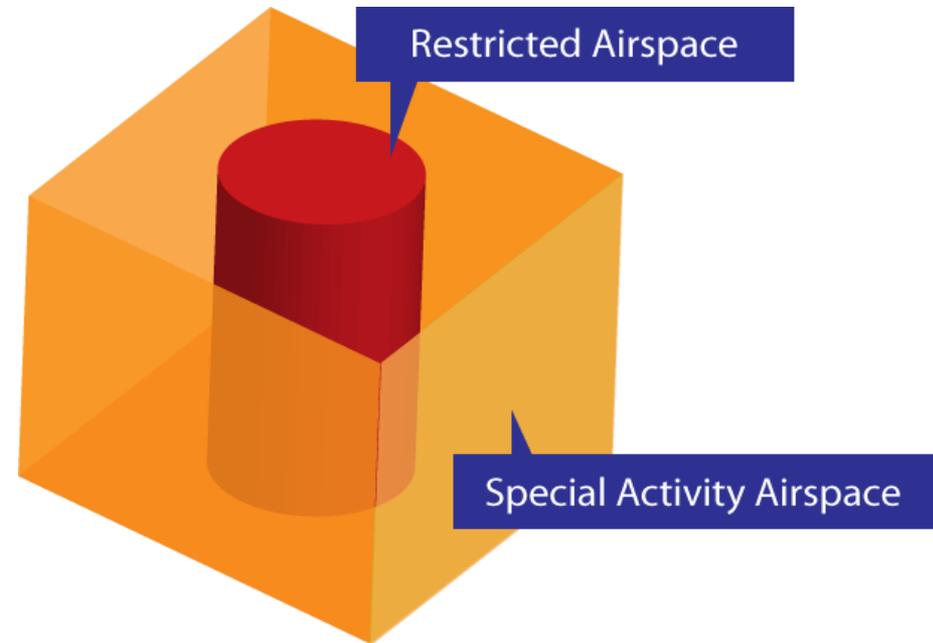
- Maintain a clear focus on the Safety and Efficiency of integration of UAS in the NAS
- Support FAA Challenges and Priorities for NAS Integration
- Support the UAS lifecycle from innovation to integration
 - Research & Development
 - Realistic Test & Evaluation
 - Modeling & Simulation
 - Operational Flight Testing
- Conduct incremental flight testing in a safe environment
- Manage Big Data to support FAA decisions makers



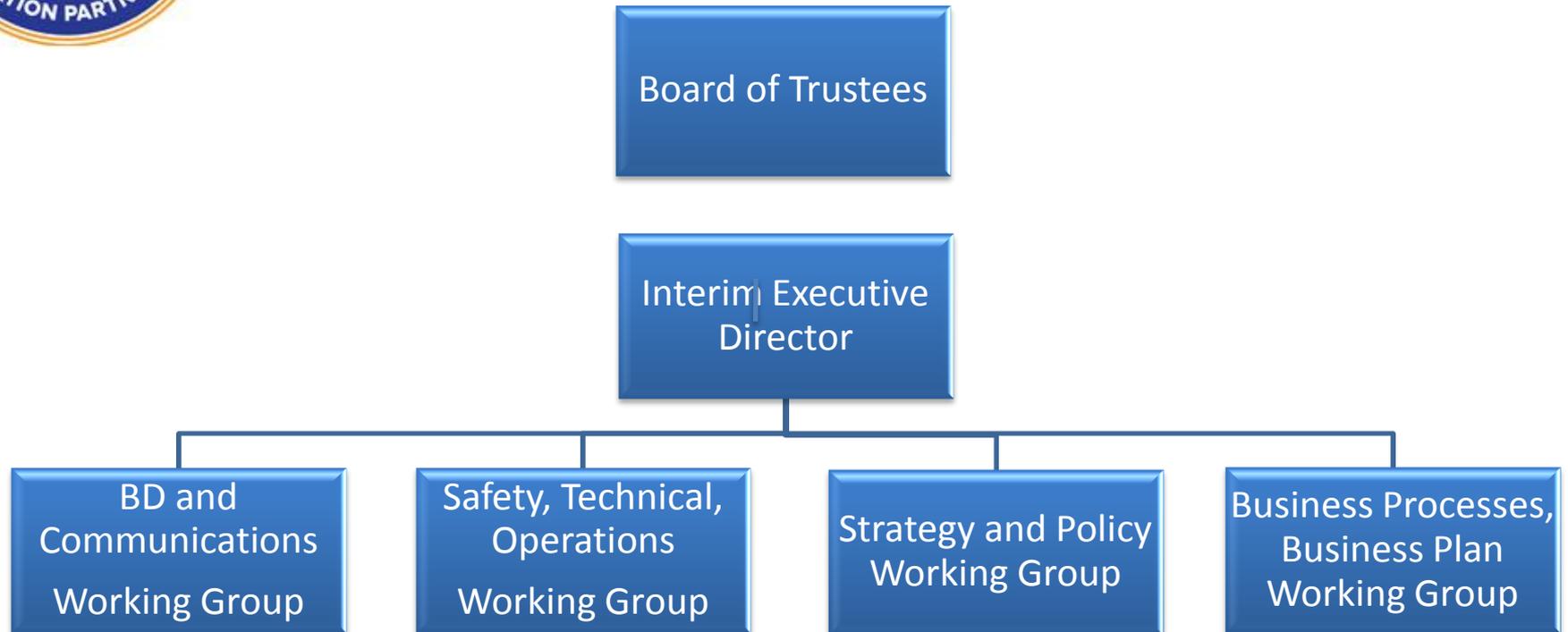
Our Ranges



- Consist of existing Restricted and Warning Areas and newly designated Special Activity Airspace
 - Maximum safety to persons and property
 - Full Aviation Infrastructure
 - Adjacent airports/airfields
 - Surveillance Coverage
- Initial phase of a long-term Airspace Analysis Plan that will evolve our test sites and ranges with the needs of the FAA and UAS industry



The MAAP Today

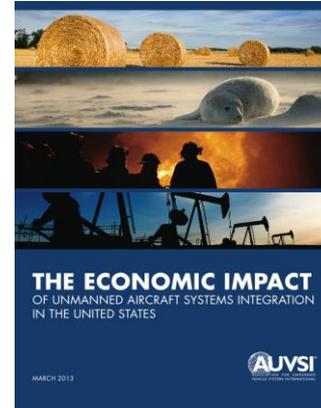


Jon Greene
Interim Executive Director
greenej@vt.edu
540-231-8566

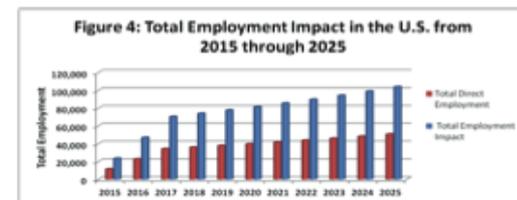
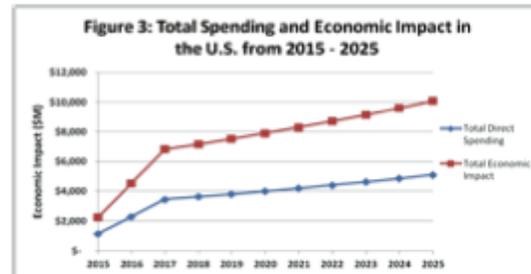


Economic Impact Study

- Economic impact of UAS integration into NAS
- Study sponsored by the Association of Unmanned Vehicle Systems International
- Conclusions
 - In the first three years
 - Economic impact of UAS integration will exceed \$13B
 - NAS Integration will create more that 70,000 jobs
 - Precision Agriculture and Public Safety are the most promising applications
 - Every year that NAS integration is delayed will cost the U.S. more than \$10B in potential economic impact



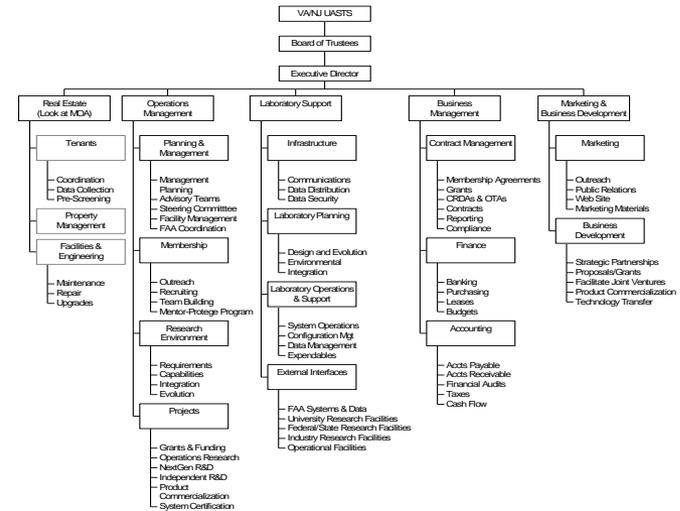
While we project more than 100,000 new jobs by 2025, states that create favorable regulatory and business environments for the industry and the technology will likely siphon jobs away from states that do not.





UASTS Economic Impact

- Economic Impact of UASTS
 - Job Growth in UAS support industries
 - Engineering/Technical Services
 - UAS Manufacturers & Providers
 - UAS Advanced Technologies
 - UAS R&D and T&E
 - New/Improved Facilities & Equipment
 - UASTS Command & Control (VA & NJ)
 - Communications
 - Surveillance
 - Test Site & Range Facilities (e.g., Hangars, Surveillance, Control)
 - R&D Facilities
 - Modeling & Simulation Facilities
 - Big Data Repository
 - Indirect Job Growth





Questions?