FEDERAL LAB CONSORTIUM/ NORTHEASTERN PENNSYLVANIA ALLIANCE "ACTION" SYMPOSIUM

NASA SPACE ACT AGREEMENT AND OTHER COLLABORATION PROCESSES

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REASONS FOR PARTNERING

- **NASA STRATEGIC GOAL #5**
  - Encourage pursuit of appropriate private sector partnerships with emerging commercial space sector
  - Innovative Partnerships Program Outcome #1: promote and develop innovative partnerships among NASA, U.S. industry and other sectors for benefit of agency programs and projects
- **LEGISLATION**
  - Transfer technology developed by NASA for commercial application and other benefits to the nation (15 USC Sec. 3710, Utilization of Federal Technology)
  - Stevenson-Wydler Technology Act, PL 96-480 established offices of research and technology applications/ORTA, NASA's Tech Transfer offices
    - Assistance to federal, state and local government officials
    - Participate in federal, regional, state and local programs to foster tech transfer
  - Federal Technology Transfer Act 1986 mandates tech transfer responsibility as federal researcher responsibility
  - American Competes Act, PL 110-69, 2007
    - Directs NASA to increase funding for basic research and fully participate in interagency activities to foster competitiveness and innovation
- With NASA challenges to retire and replace the Shuttle, complete the ISS, and prepare for long duration exploration missions, partnerships are now more closely aligned in advancing NASA mission goals.

NASA SPACE ACT AGREEMENT

- Integral to 1958 authorizing legislation creating NASA for the agency to:
  - *"enter into and perform such contracts, leases, cooperative agreements, or other transactions as may be necessary in the conduct of its work and on such terms as it may deem appropriate…with any agency…any state…any person, firm, association, corporation or educational institution"*

- **Reimbursable Agreement**
  - Use on a reimbursement basis for unique goods and services not fully utilized by NASA

- **Non-Reimbursable Agreement**
  - Quid-pro-quo collaboration of resources for mutually beneficial activity/goals

ELEMENTS OF SPACE ACT AGREEMENT

- Responsibilities of NASA and Agreement Partner
- Responsibilities or performance milestones stated with clarity
- Clearly defined financial commitments
- Resource commitments, recognizing NASA priority use of its own resources
- Allocation of risk between NASA and agreement partner
- Allocation of intellectual property rights
- Termination rights and obligations
- Fixed expiration date

OTHER TYPES OF COLLABORATION

- License of NASA patented technology
- Software Use Agreements
- Enhanced Use Lease Agreement
  (Ames Research Center, Kennedy Space Center)
  - Collaborative use of underutilized real property assets
- Space Act Agreements and other areas of collaboration are negotiated at NASA field centers.

NASA RESEARCH AND TECHNOLOGY HIGHLIGHTS BY CENTER

- **AMES RESEARCH CENTER**
  - **Information Technologies, Aerospace Systems, Autonomous Systems for Space Flight, Nanotechnology, Space Life Science/Biotech, Computational Fluid Dynamics and Aviation Operations**

- **DRYDEN FLIGHT RESEARCH CENTER**
  - **Aerodynamics, Aeronautics Flight Testing, Flight Systems, Revolutionary Flight Concepts, Thermal Testing, and Integrated Systems Test and Validation**

- **GLENN RESEARCH CENTER**
  - **Aeropropulsion and Power, Communications, Information Technology, High-Temperature Materials Research, Microgravity Science and Technology, including Bioengineering, and Instrumentation and Control Systems**

- **GODDARD SPACE FLIGHT CENTER**
  - **Earth and Planetary Science Missions, LIDAR, Cryogenic Systems, Tracking, Telemetry, Command, Optics and Sensors/Detectors**

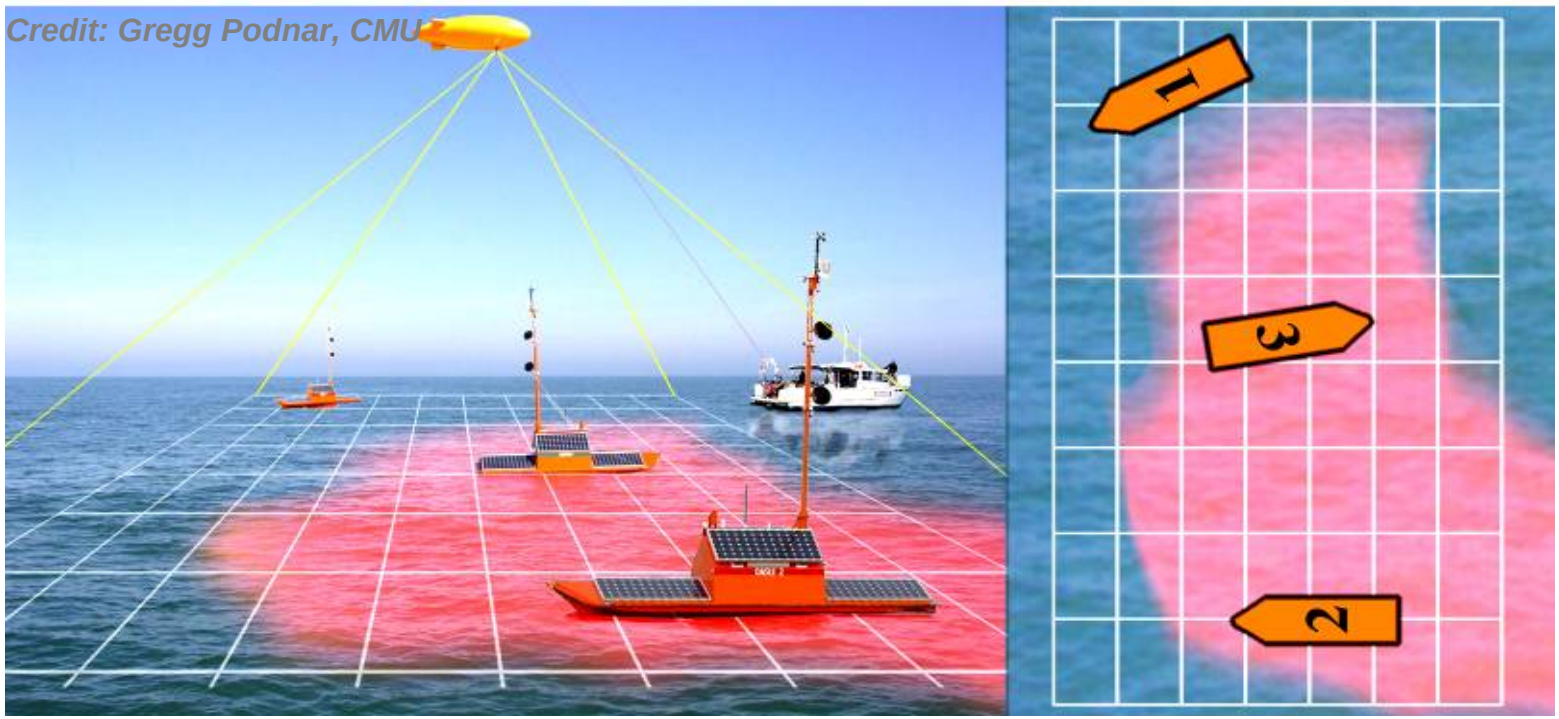
- **JET PROPULSION LAB**
  - **Deep and Near Space Mission Engineering and Operations, Microspacecraft, Space Communications, Remote and In-Situ Sensing, Microdevices, Robotics and Autonomous Systems**

NASA RESEARCH AND TECHNOLOGY HIGHLIGHTS BY CENTER

- **JOHNSON SPACE CENTER**
  - **Life Sciences/Biomedical, Medical**
- **KENNEDY SPACE CENTER**
  - **Fluid Systems, Spaceport Structures & Materials, Process & Human Factors Engineering, Command, Control & Monitoring Technologies, Range Technologies, Biological Sciences**
- **LANGLEY RESEARCH CENTER**
  - **Aerodynamics, Flight Systems, Materials, Structures, Sensors, Measurements and Information Sciences**
- **MARSHALL SPACE FLIGHT CENTER**
  - **Materials, Manufacturing, Non-Destructive Evaluation, Biotechnology, Space Propulsion, Controls and Dynamics, Structures and Microgravity Processing**
- **STENNIS SPACE CENTER**
  - **Propulsion Systems, Test/Monitoring, Remote Sensing and Non-Intrusive Instrumentation**

GSFC/Chesapeake Bay "ESTO" Collaboration project

- Development of a telesupervised adaptive sensor system for remote platforms
  - Collaboration among NASA Goddard Space Flight Center, Jet Propulsion Lab, Carnegie Mellon University
  - Adaptive changes in goals, tasks, and movements
  - ESTO project: Autonomous monitoring of toxic algae blooms in Chesapeake Bay estuary



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