Partnering with NASA
An Overview
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Partnerships at Ames

Partnering with external organizations to access capabilities under collaborative agreements

Entering into reimbursable agreements for partner access to NASA capabilities

Expanding overall landscape of space activity (maximizing public and private sector growth)

Spurring innovation
How does NASA partner?

**Non-Reimbursable Space Act Agreements**

Agreement benefits both parties, with each funding their own participation.

Proposed activity must be relative to a NASA mission or program requirement.

The level of the other party’s contribution is relatively equitable to NASA’s contribution

**Reimbursable Space Act Agreements**

Requires transfer of funds or other financial obligations from the other party to NASA.

No goods or services are provided to NASA.

NASA provides unique facilities, equipment, or expertise.
Technology Areas of Common Interest

Common Technologies

Autonomy
Advanced planning & scheduling algorithms, etc.

Human-Autonomy Teaming
Robotic supervision including human/robotic interactions, etc.

Networked Operations
Remote vehicle management, etc.

Prognostics and Diagnostics
Including state management, etc.

Sensor Technologies
Data processing / fusion methodologies, etc.

Verification & Validation
Methodologies & application experiences, etc.

Self-Driving Cars and UAVs

Partners’ Requirements
Diverse human-machine interaction in a structured environment

GPS & map-based navigation

Distributed and cloud-based autonomy

Cyber-security for consumer product

NASA Missions

Planned human-machine interaction in natural and time delayed environment

Space & planetary navigation

Spacecraft autonomy

Cyber-security for “one-off” systems

Space environment

Limited ability to address/recover faults
The mission of the SBIR program is to support scientific excellence and technological innovation through the investment of Federal research funds in critical American priorities to build a strong national economy.

NASA’s SBIR and STTR programs have awarded over $3.3B to research-intensive American small businesses to date.
NASA Centers and Installations

**Occupants:**
~1,130 civil servants  
~2,100 contractors; 1,650 tenants  
~1,344 summer students in 2015

**FY2016 Budget:** ~$915M  
(including reimbursable/EUL)

**Campus:** ~1,900 acres (400 acres security perimeter); 5M building ft²

**Airfield:** ~9,000 and ~8,000 ft runways
Major Research Facilities

- Wind Tunnels
- ARC Jet Complex
- Range Complex
- Simulators
- Advanced Supercomputing
Core Competencies at Ames Today

- Air Traffic Management
- Entry Systems
- Advanced Computing & IT Systems
- Intelligent/Adaptive Systems
- Cost-Effective Space Missions
- Aerosciences
- Astrobiology and Life Science
- Space and Earth Sciences
NASA Research Park

An established regional innovation cluster that facilitates commercialization by serving as a technology accelerator through vital and robust onsite collaborations.

70+ Partners Today

- University Associates-Ground Lease
- PV “Google” (North East Section) Ground Lease
- M2MI Corporation-Bldg.19
- Carnegie Mellon University-Bldg. 23, 19
- Kentucky Science & Technology Corporation-Bldg.19
- Bloom Energy-Bldg. 543, 154 (Fuel Cell Research)
- UAV Collaborativer-Bldg.18
- Singularity Education Group-Bldg. 20
- BAER Institute-Bldg. 19
- Chandah Space Technologies-Bldg.19
- IDM Technologies-Bldg. 19
- Logyx LLC-Bldg. 19
- Made in Space-Bldg. 153
- Neurovigil Inc.-Bldg. 19
- Rhombus Power-Bldg. 19
- Scanadu Inc.-Bldg. 20
- SkyTran-Bldg. 14
- Verdigris Technology-Bldg. 19
- ZeeAero-Bldg. 210
- LatIPnet-Bldg. 19
- Wyle Laboratories-Bldg. 19
NASA Centers and Installations

- Armstrong Flight Research Center
- Jet Propulsion Laboratory
- White Sands Test Facility
- Johnson Space Center
- Michoud Assembly Facility
- Glenn Research Center
- Independent Verification and Validation Facility
- Plum Brook Station
- Goddard Institute for Space Studies
- Langley Research Center
- Goddard Space Flight Center
- Marshall Space Flight Center
- Stennis Space Center
- Kennedy Space Center
- Wallops Flight Facility
- Langley Research Center
- Headquarters
- Ames Research Center