

# **OVERVIEW**

NASA leads the Nation on a great journey of discovery, seeking new knowledge and understanding of our planet Earth, our Sun and solar system, and the universe out to its farthest reaches and back to its earliest moments of existence.

### NASA MISSION DIRECTORATES AND GRANT-ISSUING PROGRAMS

#### Science Mission Directorate 43.001

**Purpose:** NASA's Science Mission Directorate (SMD) seeks new knowledge and understanding of our planet Earth, our Sun and solar system, and the universe. SMD and the Nation's science community use space observatories to conduct scientific studies of Earth from space to visit and return samples from other bodies in the solar system, and to peer out into our galaxy and beyond. SMD is NASA's largest grant-issuing Mission Directorate.

#### Award Examples:

Recipient: Stormcenter Communications LLC Description: Engaging the wildfire community and decision makers with improved trust data integration and interoperability through real-time synchronous cross-platform sharing. Award Amount: \$79,923

Recipient: University of Oregon Description: Conducting a study of snow evolution over Earth's ice sheets. Award Amount: \$13,892

#### Space Technology Mission Directorate 43.012

**Purpose:** The Space Technology Mission Directorate (STMD) develops transformative space technologies to enable future missions. STMD makes space tech available to commercial companies to generate real-world benefits—everything from creating jobs to saving lives.

#### Award Examples:

Recipient: Space Foundry Description: Plasma jet printing technology for in-space manufacturing and in situ resource utilization. Award Amount: \$10,000 Recipient: Trans Astronautica Corporation Description: Development of large space habitats with ample green space and robust agricultural systems. Award Amount: \$124,900

#### Office of STEM Engagement 43.008

**Purpose:** NASA STEM [science, technology, engineering, and mathematics] Engagement delivers tools for students and educators to learn and succeed by creating unique opportunities for a diverse set of students to contribute to NASA's work in exploration and discovery; building a diverse future STEM workforce by engaging students in authentic learning experiences with NASA's people, content, and facilities; and attracting diverse groups of students to STEM through learning opportunities that spark interest and provide connections to NASA's mission and work.

#### Award Examples:

Recipient: University of Arizona

**Description:** Advancing site preparation excavation and mining technologies in support of future lunar missions. **Award Amount:** \$494,866

Recipient: Alabama A&M University

**Description:** To design, create, and provide workshops, sustainable training materials, and support to minority-serving institutions (MSIs) as a means of enabling competitive advantage in securing Federal funds for MSIs to yield improvements in MSI capacities.

Award Amount: \$371,729



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#### Space Operations Mission Directorate 43.007

Purpose: The Space Operations Mission Directorate (SOMD) provides the Agency with leadership and management of NASA space operations related to human exploration in and beyond low-Earth orbit (LEO). SOMD manages current and future space operations, including for the International Space Station (ISS), currently in LEO with a crew of six, and commercial launch services to the ISS; it also performs broad scientific research on orbit. Exploration activities beyond LEO include the management of Commercial Space Transportation, Exploration Systems Operations, Human Space Flight, Capabilities, and Advanced Exploration Systems. SOMD is also responsible for Agency leadership and management of the space transportation services of NASA and NASA-sponsored payloads that require orbital launch, as well as the Agency's space communications and navigation services in support of both human and robotic exploration programs.

#### Award Examples:

#### Recipient: Wake Forest University

**Description:** This project will study the risk of damaging both the hip and knee joints because of exposure to weightlessness during long space flights. **Award Amount:** \$802,395

#### Recipient: Regents of the University of California

**Description:** This study will determine the flammability of several thin solid materials and help verify and improve the predictive capabilities of material flammability models. **Award Amount:** \$906,955

# Exploration Systems Development Mission Directorate 43.003

Purpose: The Exploration Systems Development Mission Directorate (ESDMD) defines and manages systems development for programs critical to NASA's Artemis program and planning for NASA's Moon-to-exploration approach in an integrated manner. ESDMD manages the human exploration system development for lunar orbital, lunar surface, and Mars exploration. ESDMD leads the human aspects of the Artemis activities as well as the integration of science into the human system elements. ESDMD is also responsible for the development of the lunar and Mars architectures.

#### Award Examples:

**Recipient:** Florida Maxima Corporation **Description:** Psychosocial dynamics within the context of space flight have been shown to have a large impact on crew dynamics and well-being. As NASA moves towards longer-duration exploration missions, the isolation and confinement may foster a blurring of work and social factors. The increased social support provided by crewmembers, along with increased social interdependence, has the potential to cause differential levels of interpersonal and/or intimate relationships among subsets of the crew.

Award Amount: \$674,000

#### Recipient: Sierra Nevada Corporation

**Description:** Develop and assess concepts for variable plantspacing systems that will work with soilless, microgravityindependent nutrient delivery and recovery technologies. As part of the NextSTEP Hybrid Life Support System project, Sierra Nevada Corp. is using a manual transplanting nursery system in our Astro Garden prototype. A variable plant-spacing mechanism has the potential to multiply the productivity of the current nursery-based system.

Award Amount: \$225,000

#### Aeronautics Research Mission Directorate 43.002

**Purpose:** Aeronautics Research Mission Directorate (ARMD) scientists, engineers, programmers, test pilots, facilities managers, and strategic planners are focused on aviation's future. They design, develop, and test advanced technologies that will make aviation much more environmentally friendly, maintain safety in more crowded skies, and ultimately transform the way we fly.

#### Award Examples:

#### Recipient: Boeing Corporation

**Description:** Advanced capabilities planned for the next generation of autonomous and increasingly autonomous air vehicles will include nontraditional components based on artificial intelligence, machine learning, and complex optimization and planning algorithms.

Award Amount: \$526,625

#### Recipient: Spirit Aerosystems, Inc.

**Description:** The project will develop mature, affordable, highrate composite manufacturing and assembly technologies, with reduced equipment and tooling costs. **Award Amount:** \$323,835



# **GRANTS PROGRAMS AND RESOURCES**

NASA Grants Policy and Compliance

## **RESOURCES FOR APPLYING FOR NASA GRANTS:**

#### Systems and Websites

NASA Notices of Funding Opportunity (NOFOs) are published in the NASA Solicitation and Proposal Integrated Review and Evaluation System (NSPIRES): *https://nspires.nasaprs.com* and Grants.gov: *https://www.grants.gov*.





All NASA recipients must be registered in SAM.gov (https://sam.gov/):

SAM,GOV*		Official U.S. Government Website 100% Free
The Official U.S. Governmen Centrat Opportunities (was tho gay) Centrate total (Reports OHX from finds gay) Wage Determiniations (was weld, gay) Federal Hierarchy Departments and Subtlets	tt System for: Assitance Lisings (was citia gav) Entity information Entity information Cuckianon, and Reponsibility Qualification (was sipilis, gav) <b>Exerc</b> Entity Reporting SCR and Bio-Preferred Reporting	Register Your Entity or Get a Unique Entity ID to get   Register your entity or get a Unique Entity ID to get   Get Started   Reserve Entity   Week Entity Status
Already know what you want to Select Domain • e.g. 1606N0		

#### Registration Process in SAM.gov: User Perspective





**GRANTS PROGRAMS AND RESOURCES** 

NASA Grants Policy and Compliance

Grants Policy and Compliance (GPC) Branch web page: Grants Policy and Compliance Team | NAS

NASA Grants and Cooperative Agreements

Regulations and Guidance	Ļ	Resources and Training	
Points of Contact	Ļ	Frequently Asked Questions	
Important Links	Ļ		

### RESOURCES AVAILABLE ON THE GPC WEBSITE

Grant and Cooperative Agreement Manual (GCAM):

NASA's GCAM provides policy guidance to NASA Grant Officers, Technical Officers, Program Managers, and all other award-management-related personnel to implement Government-wide and NASA-specific regulations for awarding and administering grants and cooperative agreements with educational and nonprofit organizations; state, local, and Indian tribal governments; and for-profit organizations.

# NASA Grant and Cooperative Agreement Terms and Conditions.

This document outlines both the general and specific terms and conditions and applies to all NASA awards issued under 2CFR 1800 (NASA's adoption of 2CFR 200).

For questions about how to apply for NASA awards, please contact NASA Grant Policy and Compliance at *HQ-DL-Grants-Policy-Compliance@mail.nasa.gov*.





NASA Grant and Cooperative Agreement Manual (GCAM)

NASA Grants and Cooperative Agreement Terms and Conditions

NASA Grants Policy and Compliance YouTube Playlist. The playlist is a collection of videos designed to help grant applicants and recipients navigate the process of applying for and managing NASA grants.

The Playlist is accessible at *https://www.youtube.com/play-list?list=PLiuUQ9asub3RBxyZxDrKF57blqxHGPtPh.* 

# MINORITY SERVING INSTITUTIONS (MSI) EXCHANGE

The *Minority Serving Institutions Exchange (www.nasa.gov)* is a tool that supports the search for innovative and diverse academic collaborators by curating STEM offerings and capability statements of MSIs Nationwide. The MSI Exchange can inform partnerships for teaming opportunities and competitive Federal awards such as contracts, cooperative agreements, and grants.

The user-friendly interface and mobile-responsive design makes the MSI Exchange the ideal search tool for these groups:

- Researchers, scientists, engineers, and innovators seeking diverse academic collaborators with capabilities that can be leveraged in mission work. Helps NASA researchers seeking partners for mission-focused research through Cooperative Agreement Notices (CANs), Space Act Agreements (SAAs), or Small Business Innovation Research/Small Business Technology Transfer.
- Higher-education faculty seeking diverse research collaborators for competitive awards.

Please also sign up for the MSI Exchange mailing list. You will receive occasional updates from the Minority University Research and Education Project (MUREP) about training, events, funding, and student opportunities, as well as other ways MSIs can engage with NASA. *Subscribe at Minority Serving Institutions Exchange (www.nasa.gov)*.

For more information, review the MSI Exchange's list of *Frequently Asked Questions*.

