



ICECUBES WEBINAR

21 March 2024

Educational Opportunities in Low Earth Orbit

AGENDA

- 12:30 - 12:05 - **Introduction and welcoming words**
Cynthia Bouthot, CEO & Founder, Space Commerce Matters
- 12:35 - 12:55 - **ICE Cubes capabilities and case studies**
Hilde Stenuit, ICE Cubes Business Development, Space Applications Services
- 12:55 - 1:05 - **Funding opportunities**
Tanya Kanigan, Senior Science Advisor, Space Commerce Matters
- 1:05 - 1:30 - **Open discussion**



Anna Marie
Payload Integrator
ICE Cubes US



Jessica Gray
Payload Integrator
ICE Cubes US





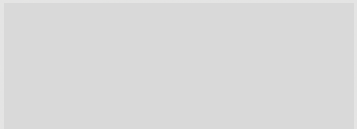
INTRODUCTION

CYNTHIA BOUTHOT, SCM FOUNDER AND CEO



ICE CUBES EDUCATIONAL PROJECTS

HILDE STENUIT, ICE CUBES BUSINESS DEVELOPMENT





FUNDING OPPORTUNITIES

TANYA KANIGAN, PHD, SCM SENIOR SCIENCE ADVISOR

US SPACE FUNDING AGENCIES AND PROGRAMS

Advanced Materials



ISSNL InSPA



Future Manufacturing



ARPA-E



DSO, MTO

Space Science



ROSES



MSE



MSE

Biology & Medicine



ISSNL InSPA



NSF/CASIS



NCATS



CATALYST, INGRESS

Space Workforce & Education



EPSCoR, Space Grant



ISSNL NLRA



SPACE



AFOSR: STEM, UNP

Space Access & Tech Demo



Techflights, NIAC



ISSNL NLRA



DOD - STP



AFOSR

WORKFORCE DEVELOPMENT & STEM EDUCATION - OPEN

Agency/ Program ID	Program Name	Description	Who Can Apply?	Max Award	Proposal Deadline
AFRL FOAAFRLAF- OSR20240002	AFOSR FY 2024 STEM Program	Supports STEM educational and training opportunities related to: <ul style="list-style-type: none"> • Engineering and Complex Systems • Information and Networks • Chemistry, Biology and Physics 	Academia, non-profit organizations and industry	\$150k/yr 1-3 yrs	Apr 12
NASA Office of STEM Engagement 2024 EPSCOR ISS NNH24ZHA004C	2024 Established Program to Stimulate Competitive Research (EPSCoR), International Space Station Flight Opportunity (EPSCoR ISS)	Seed funding to develop research enterprises in jurisdictions that historically have not participated equitably in competitive aerospace research	Institutes of higher education in EPSCoR states	\$150K, launch costs	Apr 15
ISSNL (CASIS) NLRA 2024-5	Leveraging the ISS for Education and Workforce Development	Educational opportunities related to space-based research, technology development, and the commercialization of LEO	US based institutions March 7 1PM EST call	\$600K total with 4 to 5 awards	Apr 24 concept paper Jul 1 Full paper
NSF Dear Colleague Letter	Supplemental Funding for Space-Related Preparation and Awareness for Career Equity (SPACE)	Supplemental funding to improve diversity in the space workforce through space-related research, R&D or educational activities	Current NSF Awardees	20% of existing award	Open



ISS NATIONAL LAB (CASIS) NLRA 2024-5

Leveraging the ISS for Education and Workforce Development

Concept paper due: April 24, 2024

Full proposal due: June 1, 2024

Funding level: \$600K total distributed between 4 to 5 awards

Who is eligible to apply?

Institutions of higher education, non-academic organizations, educational organizations (for profit and non-profit)

Important! The 2024 funding priority for this program is **workforce development.**

For more information:

See [opportunity webpage](#) for solicitation links and application portal and link to webinar



NSF SPACE DEAR COLLEAGUE LETTER (DCL)

NSF Supplemental Funding for Space-Related Preparation and Awareness for Career Equity (SPACE)

Dear colleague letter dated: Sept 19, 2022

Deadline: none

Provide supplemental funding to active NSF awardees with projects at the intersection of the STEM and space ecosystems, that aim to improve diversity in the space workforce

Program funding: Not specified

Max award: 20% of underlying NSF award

Who is eligible to apply? Current NSF awardees

For more information:

<https://new.nsf.gov/funding/opportunities/supplemental-funding-space-related-preparation>

NSF 22-123

Dear Colleague Letter: Supplemental Funding for Space-Related Preparation and Awareness for Career Equity (SPACE)

September 19, 2022

Dear Colleagues:

Space-related programs, projects and activities are of great importance to the economy, national security, and to understanding the Earth and Universe. NSF is poised to support the [United States Space Priorities Framework](#) by providing supplemental funding to active NSF awardees with projects at the intersection of the science, technology, engineering, and mathematics (STEM) and space ecosystems, that aim to improve diversity in the space workforce. The space workforce represents a wide range of careers; some example careers can be seen in solar and space physics research, aerospace, advanced manufacturing, quantum computing, communication, nanotechnology, and artificial intelligence. The promotion of this diverse set of career paths and related activities is a government wide initiative (e.g., the CHIPS and Science Act, a historic investment in the production of American-made semiconductors, the supply chain, and scientific research and technological leadership).

For the purpose of this DCL, space-related is defined as one or more of the following:

- Space-Direct: Programs, activities and/or projects that are used either in the space environment or directly support goods and services used in space (e.g., space vehicles, launch pads, communications, etc.).
- Space-Enabled: Programs, activities and/or projects that require direct input from space to function (e.g., satellite telecommunications and observations, global positioning, navigation, and timing equipment, etc.).
- Space-Research: Programs, activities, and/or projects that are associated with studying space (e.g., research and development, educational services, planetariums, observatories, etc.).

Competitive supplemental funding requests will clearly detail how the request offers a unique opportunity for preparing the space workforce of the future, are space-related, and indicate how one or both of the following goals are met:

Goal 1: Awareness - To increase the awareness of space related career opportunities in communities underrepresented in the space workforce by increasing the participation of under-engaged communities (PreK-adults), institutions (e.g., HBCUs, HSIs, TCUs and other MSIs, two-year colleges, and trade/vocational schools), and geographic regions.

Goal 2: Preparation - To increase preparation and enhance capacity throughout the nation, in support of a diverse space workforce through activities and projects that include but are not limited to faculty development, formal education, informal education, and community-based activities.

HOW TO RESPOND TO THIS DCL

Principal Investigators (PIs) with active NSF awards are eligible to submit supplemental funding requests through their respective NSF programs following the guidance specified in Chapter VI.E.5 of the [NSF Proposal & Award Policies & Procedures Guide](#) (PAPPG) and this DCL. The first line of the Summary of Proposed Work section must include "Supplemental Funding for Space-Related Preparation and Awareness for Career Equity (SPACE)" followed by a description of the proposed activities. In the Justification for Supplement section, include details that indicate how the supplemental funding request aligns with the goals of this DCL. Budgets should not exceed 20% of the underlying award and are subject to availability of funds. The budgets and project duration should be determined by the scope of the activities and in accordance with the PAPPG. Principal Investigators should consult with their cognizant NSF Program Director prior to submitting a supplemental funding request for program specific questions and may contact Narcisha Norman, Program Director at SPACE@nsf.gov with questions specific to this DCL. Supplemental funding requests may be submitted at any time; there is no fixed deadline date.

Sincerely,



WORKFORCE DEVELOPMENT & STEM EDUCATION - FUTURE

Agency/ Program ID	Program Name	Description	Who Can Apply?	Max Award	Anticipated Release
NASA STRG STRI	Space Technology Research Institutes (STRI)	Funds university-led initiatives aimed at transformative research for NASA's future exploration and science	US universities	\$15M	June 2024
NASA TEAM II	Teams Engaging Affiliated Museums and Informal Institutions (TEAM II)	NASA mission-inspired STEM projects	Non-profit museums, planetariums, libraries, and youth-serving organizations	\$800K	Jun 2024
NASA MUREP MIRO	Minority University Research and Education Project Institutional Research Opportunity	Funding to develop significant research and STEM education infrastructure in areas relevant to NASA missions	Minority Serving Institutions (MSI's)	\$5M	Nov 2024



FUNDING FOR UNDERGRADUATE SPACE-RELATED RESEARCH

Agency/ Program ID	Program Name	Description	Who Can Apply?	Max Award	Proposal Deadline
NASA National Space Grant Programs	Specific to individual state Space Grant consortia	Funding to support undergraduate research activities in an area aligned with NASA priorities	Undergrad students	<\$10K	Various
ROSES 2024:F.5	Future Investigators in NASA Earth and Space Science and Technology (FINESST)	Student-designed and performed research projects in areas relevant to NASA Science Mission Directorate (SMD)	Undergrad and grad students	\$50K/YR	TBD, likely Feb 2025



OTHER RELEVANT RESOURCES

[ISS National Lab \(ISSNL\) Solicitations](#)

Current and upcoming funding opportunities for CASIS programs

[ISSNL Educational Programs](#)

Search and browse existing ISSNL educational programs and learning resources

[ISSNL STEM Opportunities](#)

Overview of educational and internship programs

[NASA NSPIRES](#)

NASA Solicitation and Proposal Integrated Review and Evaluation System (NSPIRES) website

[NASA STEM Gateway](#)

Search for Internships, College and Pre-College experiences, Educator experiences, and other STEM opportunities related to NASA missions

[NASA STEM Opportunities](#)

Educational challenge and internship programs





DISCUSSION:

- What are your project concepts?
- What are the educational grants you currently work with and how can we “specify” them?
- Questions!



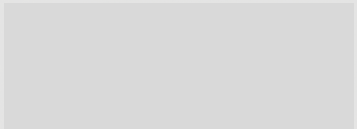
THANK YOU FOR YOUR ATTENTION

Contact us!

tanya@spacecommatters.com



SUPPLEMENTAL SLIDES



AFOSR FY 2024 STEM PROGRAM

Department of Defense (DoD) Fiscal Year 2024 Science, Technology, Engineering, and Mathematics (STEM) Program through AFOSR

Pre-proposal questions by: March 29, 2024

Full proposal due: April 12, 2024

This program was funded in 2022, and 2023. FY 2025 announcement is anticipated in Jan. 2025.

Program funding: \$1.8M

Max award: \$150K/year for 3 years

Relevance to space: The broad objective of this program is to cultivate a diverse, world-class STEM workforce relevant to the U.S. Air Force and Space Force's technological superiority

Who is eligible to apply?

Institutions of higher education, non-academic organizations, educational organizations (for profit and non-profit)

For more information: www.afosrstem.org



AIR & SPACE
STEM Outreach
Air Force Office of Scientific Research



2024 EPSCOR ISS FLIGHT OPPORTUNITY

2024 Establishment Program to Stimulate Competitive Research (EPSCoR) International Space Station Flight Opportunity

Full proposal due: April 15, 2024

This program was also funded in 2022, and 2023. FY 2025 announcement is anticipated in January 2025.

Program funding: \$750,000

Max award: \$150,000

Relevance to STEM: Projects provide opportunities for training and professional development (project reports must address this)

Who is eligible to apply?

Institutes of higher education in EPSCoR states (AL, AK, AR, DE, GU, HI, ID, IA, KS, KY, LA, ME, MS, MT, NE, NV, NH, NM, ND, OK, PR, RI, SC, SD, VI, VT, WV, WY)

For more information: [NASA EPSCoR Funding Opportunity Announcements](#)

