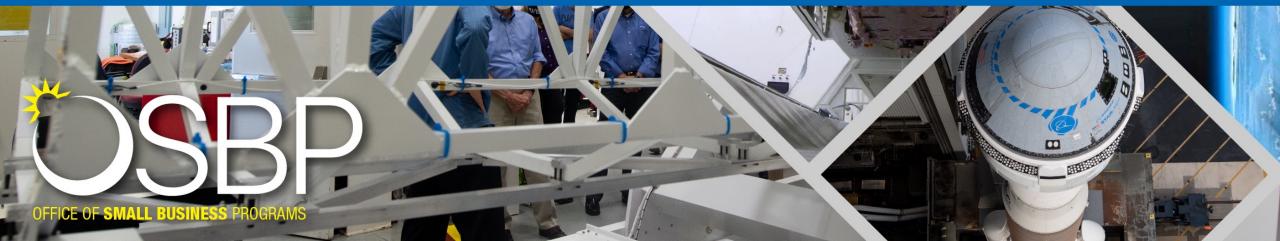


OSBP Learning Series: NASA SBIR/STTR Program Update

Wed | January 18, 2023 | 1 p.m. ET (webinar)



Housekeeping

- If you have any questions during the presentation, please enter them into the Q&A Box.
 - **NOTE:** If possible, include the speaker whom your question is directed if multiple speakers are presenting.
- Other comments, like technical difficulties, please input them in the Chat Box.
- We will have a formal Q&A after the final presenter concludes, using questions from the Q&A Box.
- Please keep your computers on mute when not speaking.
- The presentation WILL be recorded. Attendees will receive an email once those materials are made available online.
- Please fill out the survey that will be available in the Q&A box during the presentation.







Q Search

Panelist: 22

∨ Chat

(SPACEX)"

> Q&A

> Polling

All Attendees

Enter chat message here

Attendee: 300 (7 displayed)

Do Your Homework!

- **Start** with a Small Business Specialist (SBS) at each NASA Center
 - Build relationships with the Center SBS and the Industry Small Business Liaison Office (SBLO)
- Learn about NASA 's various missions
 - Each NASA Center has different Missions
 - Varied mix of products and services
- Respond to Sources Sought Synopses / Request '
- Use Small Business resources:
 - Agency Acquisition Forecast
 - Procurement Technical Assistance Center (PTAC)
 - Small Business Administration (SBA)
 - Trade associations
 - **Outreach Events**











Hi Truphelia -- will you please add Vikram from SpaceX

to the panelist group? He's logged in as "V Kothari





\$ Q~



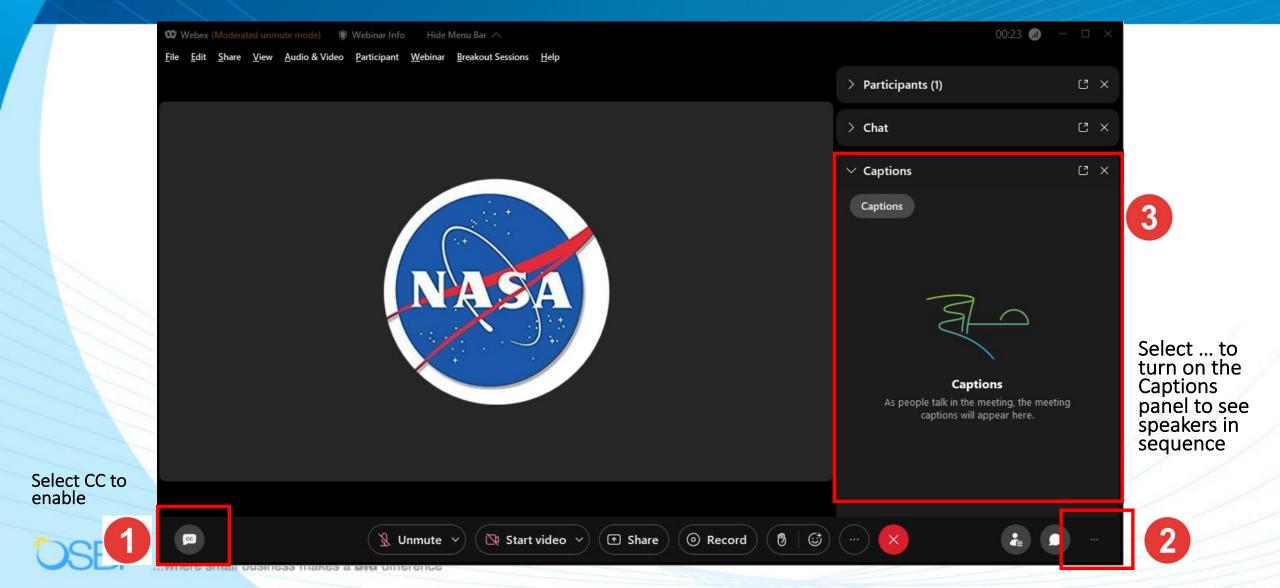








Webex Closed Captioning is Available!



Polling Questions

- 1. How did you learn about this webinar?
 - a. OSBP Website
 - b. Constant Contact
 - c. Social Media
 - d. Eventbrite email
 - e. Other
- 2. Is this the first webinar hosted by the NASA Office of Small Business Programs that you have attended?
 - a. YES
 - b. NO

Polling Questions Cont.

- 3. Which of the following classifications applies to your institution/organization/company?
 - a. Small Business (SB)
 - b. Large Business (LB)/Other than Small Business (OTS)
 - c. Women-Owned Small Business (WOSB)
 - d. Economically Disadvantaged Women-Owned Small Business (EDWOSB)
 - e. Veteran-Owned Small Business (VOSB)
 - f. Service-Disabled Veteran-Owned Small Business (SDVOSB)
 - g. Historically Underutilized Business Zone (HUBZone)
 - h. 8(a) Business Development Program Participant (8a)
 - i. Historically Black Colleges or Universities (HBCU)
 - j. Minority-Serving Institution (MSI)
 - k. Nonprofit or Community-based Organization
 - I. Federal Government Agency/Department
 - m. State or Local Government Agency/Department
 - n. Small Disadvantage Business (SDB)
 - o. Other



Polling Questions Cont.

- 4. Have you done business with NASA? (More than one answer can be applicable)
 - a. Prime Contractor
 - b. Subcontractor
 - c. NASA Mentor-Protégé Program
 - d. Space Act Agreement
 - e. Grant or Cooperative Agreement Recipient
 - f. I have not done business with or received funding from NASA



About the NASA Office of Small Business Programs

- NASA's Office of Small Business Programs (OSBP) primary mission since its inception has been to increase the representation of small businesses in NASA's contracting efforts.
- Headquartered in Washington, D.C., OSBP is under the leadership of Associate Administrator Glenn A. Delgado.
 - **INCLUSION** OSBP efforts encompass all federally recognized socio-economic small business categories and we work hard to make sure each type of business gets a fair chance to work with NASA.
 - **GROWTH -** Since 1979, OSBP has grown from only 4 civil servants and 3 contractors, to over 21 civil servants and over 6 support contractors -- all of which are small businesses.
 - ADVOCACY OSBP continues to advocate for small businesses and amplify the important role they play in supporting NASA's mission to explore the universe.
 - EDUCATION The NASA OSBP webinar series offers in-depth training relevant to small businesses; and provide
 the opportunity to ask questions directly to key points of contacts at the Agency.

Meet Our Speaker

Dr. Quenton Bonds, Entrepreneurial Engagement, NASA SBIR/STTR Program

Dr. Quenton Bonds supports the NASA SBIR/STTR Program Management Office (PMO) and brings both engineering and entrepreneurship skills to bear helping small businesses and NASA get the most out of their partnership.

He has started for- and non-profit businesses and won competitive research awards for technology development across various sectors, including automotive, biomedical, and earth science.

Before joining NASA's SBIR program he supported the Microwave Instrument and Technology Branch at Goddard, where Quenton held several engineering, project management, and project lead roles supporting microwave instrument development for CubeSats, aircraft instruments, and more.





Small Business Innovation Research/Small Business Technology Transfer (SBIR/STTR) Program Update

Dr. Quenton Bonds, Entrepreneurial Engagement, NASA SBIR/STTR Program



NASA SBIR/STTR Program

sbir.nasa.gov





AGENDA

- We are all Pioneers!
- What is the SBIR/STTR Program?
- What is the difference between SBIR and STTR?
- NASA's Structure
- What exactly do I get?
- What do we provide small businesses?

- What do we provide research institutions?
- Benefits to Earth?
- Success Stories
- Who can join?
- How does it work?
- NASA SBIR IGNITE
- Where do I start?
- What other resources do I have?

Webinar Ground Rules



This webinar is intended to provide you with an overview of the most recent NASA SBIR/STTR Programs. It is not official procurement guidance/instructions.

It is your responsibility to read and understand the solicitations in their entirety, and to develop and submit your proposal in accordance with the requirements and instructions contained therein.

What is the SBIR/STTR Program?



 Highly competitive program that encourages domestic small businesses to engage in Federal Research/Research and Development (R/R&D) with the potential for commercialization

Small Business Technology Transfer (STTR)

- Established in the 1990s; created to facilitate cooperative R&D between small businesses and U.S. research institutions (RIs)
- NASA is 1 of 6 participating agencies

Small Business Innovation Research (SBIR)

- Has been around since 1980s
- NASA is 1 of 11 participating agencies

Approximately \$3 billion invested per year by participating agencies

SBIR + STTR Programs







Department of Health and Human Services (HHS)



Department of Energy (DOE)



National Aeronautics and Space Administration (NASA)



National Science Foundation (NSF)



Department of Agriculture (USDA)

SBIR Program Only



Department of Education (ED)



Department of Transportation (DOT)



Environmental Protection Agency (EPA)



Department of Homeland Security (DHS)



Department of Commerce (DOC)

What is the difference between SBIR and STTR?

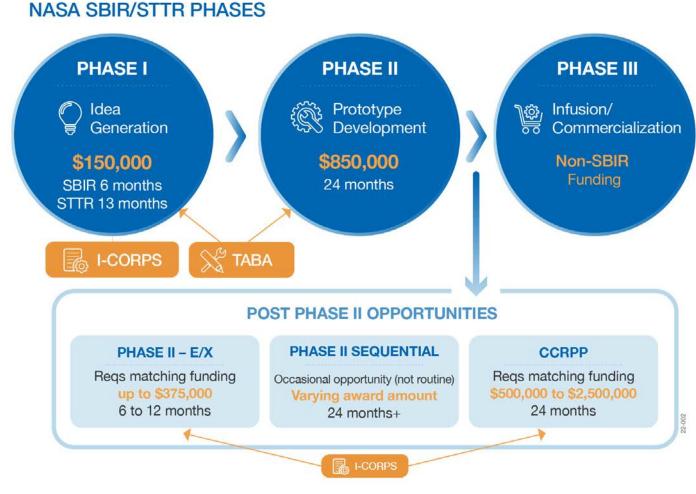


- The STTR program exists to unlock the power and innovative thinking of the country's research institutions
- The primary difference is that for STTR, the small business must formally partner with a research institution (RI)
- Topics in SBIR support NASA's mission directorates, whereas the STTR topics are derived from the specific needs of NASA's ten centers
- The period of performance for a Phase I is longer for STTR due to the nature of the academic calendar for universities
- SBIR: Principal Investigator (PI) must be more than 50% employed by the small business
- STTR: Principal Investigator (PI) can be employed by either the small business or the research institution

What exactly do you get?



Up to \$1 million for Phase I and II and nearly \$3 million or more for Post Phase II opportunities!



NASA SBIR/STTR Program | sbir.nasa.gov

What do we provide small businesses?





Early-stage funding for research & development (R&D)



Up to \$1 million during your first three years, plus up to nearly \$3 million or more through Post Phase II opportunities



We take zero equity, and you keep your intellectual property



The **experience** of working with NASA experts on your technology



The **opportunity** to join us on one of our many ambitious missions



A **network** of diverse entrepreneurs and innovators



A door into potential work with NASA programs and other government agencies



A way to hone your **business skills** to complement your technical skills



A way to **de-risk your technology** as you work to mature it



A reputation that comes with working with an agency known for expanding the physical and mental boundaries of humanity

NASA SBIR/STTR Program | sbir.nasa.gov

What do we provide research institutions?





For RIs:

- A path to turn cutting-edge research from the lab to life-changing technology in the market
- The credibility that comes from working alongside NASA's researchers and experts
- A federal funding mechanism to advance research in your area of interest





- Research data for potential publication in the future
- A way to expose students to exciting projects that could lead to employment
- An approach to foster entrepreneurship and innovation in students
- A differentiator when marketing your institution to potential students



For Students:

- The opportunity to work on pioneering research projects
- Experience that could lead to employment

From Low-Earth Orbit to Benefits on Earth

How small businesses use the International Space Station to improve life on our planet





A lidar (light detecting and ranging) system for monitoring the effects of climate change by studying cloud and aerosol properties in Earth's atmosphere

Fibertek, Inc. (VA) | fibertek.com Michigan Aerospace Corp. (MI) | michiganaerospace.com



A system to manufacture multilayered artificial retinas to treat retinal degenerative diseases; the conditions of space improve the quality of the manufacturing process

LambdaVision (CT) | lambdavision.com *Woman-led small business*



A fine water mist fire extinguisher that is a non-toxic substitute for CO2 fire extinguishers, making it a safer alternative for spacecraft, aviation, and general commercial use

ADA Technologies, Inc. (CO) | adatech.com



An ultraviolet sensor for improved detection of ocean-based oil spills and fires in remote areas; the technology's integrity can be validated in the harsh conditions of space

Ozark Integrated Circuits, Inc. (AR) | ozarkic.com



A 3D bioprinter that uses the microgravity conditions of space to print human tissue, which could be used for skin grafts and transplants

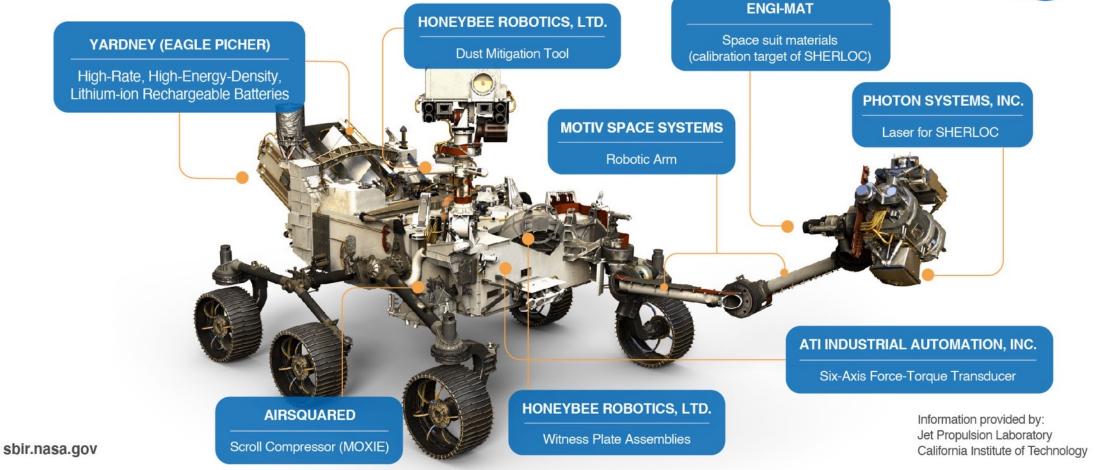
Techshot, Inc. (IN) | techshot.space

Infusion into NASA's missions



SBIR TECH ON-BOARD MARS 2020 PERSEVERANCE ROVER

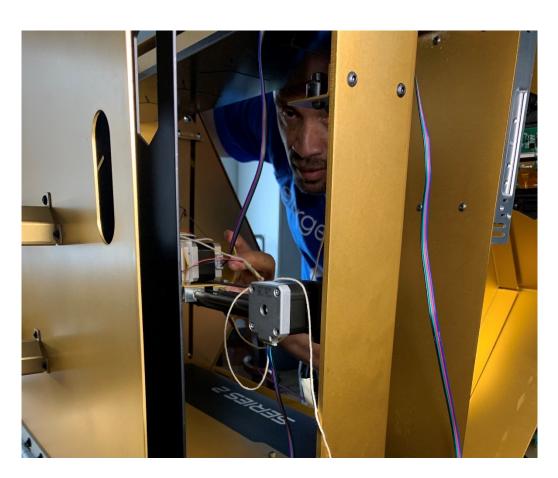




Success Story:

Bringing 3D Electronics Printing to the Marketplace





Dr. Glenn working on the eForge

Morningbird Media

Huntsville, Alabama

- Dr. Chance Glenn served as the Dean of Engineering at Alabama A&M University (AAMU) when he founded Morningbird Media Corporation
- Partnered with AAMU on the development of the Electronic Alchemy eForge, a 3D printer to help NASA support long-duration missions
- The work of the AAMU team led to the development of six new materials with electronic properties—all of which have been submitted for patents
- Launched a Kickstarter campaign and achieved funding goal within three hours
- Campaign secured commercial customers who could develop new applications for the 3D printer here on Earth

Success Story:

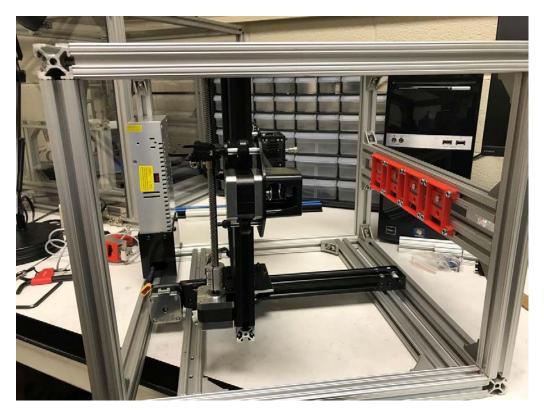
Bringing 3D Electronics Printing to the Marketplace





We took our company from almost like vapor to a product that we're about to sell to the market. We've got intellectual property patents that have been filed, we've interacted with investors, we've had a Kickstarter campaign and raised a record amount of money—all because of STTR.

Dr. Chance Glenn
 Morningbird Media Corporation
 Founder, President, and CEO



eForge prototype built with the assistance of STTR funding

Who can join?



- The SBIR/STTR program's focus is on R&D, funding ideas that have the potential to solve some of NASA's most pressing challenges
- You must be a Small Business Concern (SBC) with 500 employees or less and legally established in the U.S. (visit our website for the full criteria)
- For STTR, the partnering research institution must be in the U.S. and be a nonprofit college or university, domestic nonprofit research organization, or a federally funded R&D Center (FFRDC)
- If NASA is not the right fit, there are 10 other government agencies that have SBIR/STTR programs that you may want to explore: https://www.sbir.gov/agencies-landing

Approximately 80% of the small businesses we fund have less than 50 employees

How does it work?





agreement at any time with

a Phase I or Phase II

awardee.

Note: Dates are subject to change. For the latest dates, please visit our website's "Schedule & Awards" page.

Do you have a commercially-viable tech idea?





GOAL

Fund early-stage tech to help make companies and their tech more attractive to private sector investors, customers, and partners.

2022 SUBMISSION PERIOD

Closed September 1, 2022

2022 AWARD AMOUNT

Phase I: \$150,000 Phase II: \$850,000

2022 PERIOD OF PERFORMANCE

Phase I: 6 months
Phase II: 24 months

LEARN MORE

sbir.nasa.gov/ignite

NASA SBIR/STTR vs. NASA SBIR Ignite



- NASA SBIR Ignite:
 - Encourages participation from productdriven companies not looking at NASA as their primary customer
 - Places a heavy emphasis on commercial viability during review and scoring
 - Streamlines the application process by shortening the solicitation and the proposal requirements
 - Features the same three phases and funding levels as the main NASA SBIR/STTR solicitations
- Read last year's solicitation to learn more: https://sbir.nasa.gov/solicit-detail/80089

- Key Differences
 - Commercialization: Seeks tech that will stimulate the market and for which NASA is not the primary customer.
 - Engagement: Includes direct engagement with a panel of experts for down-selected companies.
 - Topics: Features a select few topics relevant to emerging commercial markets in aerospace.
 - Less Prescriptive Solicitation: Encourages companies to maintain their go-to-market strategies
 - Shorter Proposal: Requires a short proposal and a slide deck in response to the solicitation
 - Accelerated Award Schedule: Phase II
 proposal due earlier in the Phase I period,
 allowing Phase II awards to be made faster



Tips and Resources

Where do you start?



- Visit our website and read the recent solicitations to understand NASA's technology focus areas. Get a feel for the types of challenges NASA is looking to solve and if you think you have a solution, NASA could be a fit for you!
- Determine your topic(s) of interest. If STTR, find a research institution partner.
- Sign up for our newsletter and other communications: <u>sbir.nasa.gov/info</u>

- Keep an eye out for opportunities to meet with NASA experts: https://sbir.nasa.gov/programevents
- Contact a Center Technology Transition Lead (CTTL): <u>sbir.nasa.gov/contacts</u>
- Find additional sources of assistance: <u>sbir.nasa.gov/content/additional-sources-</u> assistance

2023 NASA SBIR/STTR Solicitations



January 10, 2023 - March 13, 2023

- Join Our Community
 - Explore our Focus Areas and tell us how your technology can address NASA's goals in space and on Earth.
- \$1M in funding during your first 3 years
 - Phase I SBIR and STTR awards: up to \$150,000
 - Phase II SBIR and STTR awards: up to \$850,000
- Notable Changes
 - Human Exploration and Operations focus area is now Exploration Systems Development & Space Operations (ESDMD-SOMD); does not impact submission process
- Next Steps
 - Watch the 1/17 "Dissecting the 2023 Phase I Solicitations" webinar recording: https://sbir.nasa.gov/programevents.

Read the Solicitations







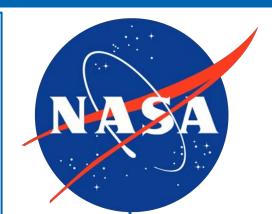


NASA Mission Directorates

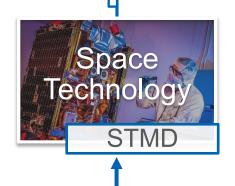


Lunar missions outlined in the Artemis program are a proving ground for new technologies, maturing capabilities and reducing risk for exploration of Mars and beyond.

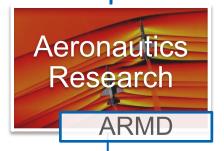
NASA and the nation's science community use space observatories to conduct scientific studies of the Earth from space to visit and return samples from other bodies in the solar system, and to peer out into our galaxy and beyond



NASA leads human space exploration in low-Earth orbit with commercial and international partners to enable missions to the Moon and Mars, including the Artemis and International Space Station programs.



Science







SBIR/STTR Program

NASA explores technologies that reduce aircraft noise and fuel use, get you gate-to-gate safely and on time, and transform aviation into an economic engine at all altitudes.

What resources do you have?



- Resource Library: <u>sbir.nasa.gov/resource-library</u>
 - Access video and print guidance for Phase 0,
 Phase 1, Phase 2, and beyond.
- Success Stories: <u>sbir.nasa.gov/success-stories</u>
 - Read how others have found success with NASA SBIR/STTR.
- Blog: sbir.nasa.gov/blog
 - Check out even more insights from the NASA SBIR/STTR community.
- And of course, don't hesitate to Contact Us: sbir.nasa.gov/contacts

- Local Assistance: https://www.sbir.gov/local-assistance
 - Find small business support in your state through the SBA's website.
- NASA Office of Small Business Programs: nasa.gov/osbp
 - Explore another path for working with NASA; ideal for small businesses without an R&D focus.
- NASA Mentor Protégé Program (MPP): nasa.gov/osbp/mentor-protege-program
 - Learn how eligible small businesses and research institutions can pair with NASA prime contractors to develop long-term business relationships.

Registrations



- Submitting a Phase I proposal requires the offeror to complete several registrations.
- Read more about these requirements in this year's solicitations:

- SBIR: Chapter 2



- STTR: Chapter 2

- These registrations take time to complete. <u>If you have not already, start the registration processes immediately.</u>
- Do not assume past registrations are up to date. Please confirm and/or update required registrations immediately.
- The Submissions EHB also requires registration or update to a prior registration. EHB is the system that NASA uses for proposal submission.

NASA Technology Transfer Program



- NASA patented technologies can be used in parallel with SBIR/STTR projects.
- Our Patent Portfolio holds over 1,400 different technologies!
 - Patent Portfolio: https://technology.nasa.gov/patents



- Software Catalog: https://software.nasa.gov/
- Read more about NASA Technology Avalable (TAV) in this year's solicitations:
 - SBIR: <u>Chapter 1.6.1</u>
 - STTR: <u>Chapter 1.6.2</u>











Deadline



- A complete proposal package for Phase I shall be received via the Electronic Handbook (EHB) no later than 5:00pm ET on Monday, March 13, 2023.
- Read more about these requirements in this year's solicitations:

- SBIR: Chapter 6

- STTR: Chapter 6

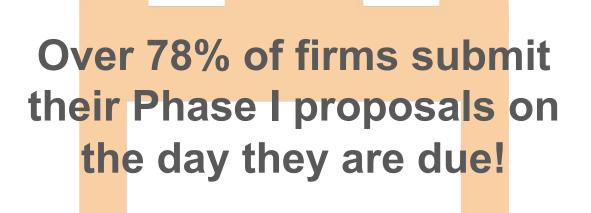


- All files constituting the complete proposal package must be uploaded prior to the deadline.
 - After upload, we recommend you download your proposal package to make sure you have uploaded the correct documents and they are readable.
- An Offeror that waits to submit a proposal package near the deadline is at risk of not completing the required uploads and endorsements of their completed proposal package by the deadline.
- If a complete proposal package is not received by the 5:00 p.m. ET deadline, the proposal package will be determined to be incomplete and will not be evaluated.

NASA will not accept late proposals.

Plan ahead to submit early!





We strongly encourage firms to submit several days before the deadline to avoid last minute issues.

NASA will not accept late proposals.



Damian TaylorDeputy Program Executive for Integration

Carlos TorrezProgram Manager



Kate Kvaternik
Program Support
Manager

Questions?

Visit our website: www.sbir.nasa.gov

Quenton Bonds quenton.bonds@nasa.gov





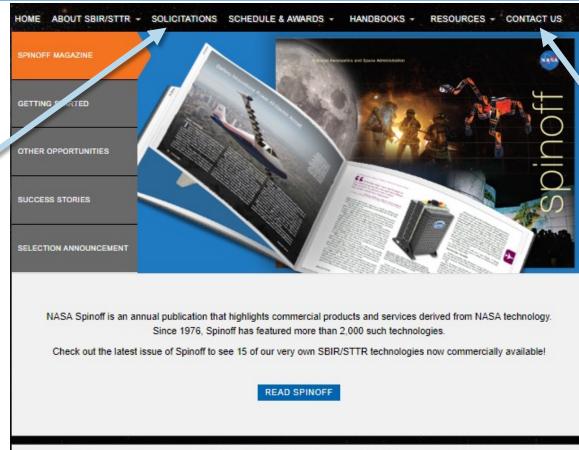
Program Website | sbir.nasa.gov



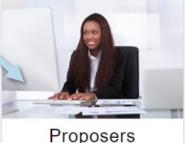
Research NASA's Needs
Annual Solicitations, including
past years



- Program Basics
- Forms Library
- Model Contract
- In-Depth Training Resources and FAQs



Contact the Program
SBIR/STTR Helpdesk and
Program Points of Contact







Awardees Pu

Learning About NASA's Needs



Focus Areas

NASA's research subtopics are organized by "Focus Areas" that group interests and related technologies.

- Identify the Area(s) closest to your innovation/idea
- Go to our website to research
- Prepare to write a proposal tailored to NASA's needs

https://sbir.nasa.gov/solicitations

2023 Focus Areas (FA)	
FA 1: In-Space Propulsion Technologies	FA 13: Information Technologies for Science Data
FA 2: Power, Energy and Storage	FA 14: On-orbit Servicing, Assembly, and Manufacturing (OSAM)
FA 3: Autonomous Systems for Space Exploration	FA 15: Materials Research, Advanced Manufacturing, Structures, and Assembly
FA 4: Robotic Systems for Space Exploration	FA 16: Ground and Launch Processing
FA 5: Communications and Navigation	FA 17: Thermal Management Systems
FA 6: Life Support and Habitation Systems	FA 18: Air Vehicle Technology
FA 7: Human Research and Health Maintenance	FA 19: Integrated Flight Systems
FA 8: In-Situ Resource Utilization	FA 20: Airspace Operations and Safety
FA 9: Sensors, Detectors and Instruments	FA 21: Small Spacecraft Technologies
FA 10: Advanced Telescope Technologies	FA 22: Low Earth Orbit Platform Utilization and Microgravity Research
FA 11: Spacecraft and Platform Subsystems	FA 23: Digital Transformation for Aerospace
FA 12: Entry, Descent and Landing Systems	FA 24: Dust Mitigation and Extreme Lunar Environment Mitigation Technologies

Q&A Session

OSBP Updates

NASA Vendor Database

The NASA Vendor Database (NVDB) is open to all vendors, both large and small, who wish to do business with the National Aeronautics and Space Administration.

Build a company profile

Conduct vendor search

Increase company visibility at NASA!

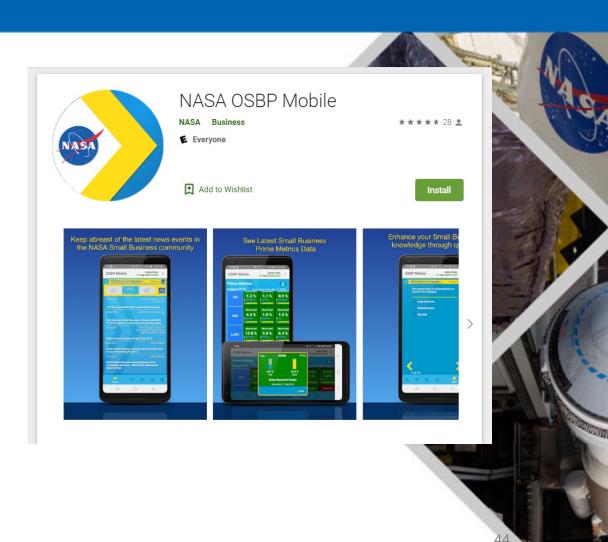
For more information, visit: https://www.nasa.gov/osbp/nasa-vendor-database



OSBP Mobile App

Are you a small business looking to make a big difference? Whether you own an engineering company, develop new telemetry software algorithms, or provide Information Technology services, the NASA Office of Small Business Programs (OSBP) can help you make that difference at the Agency by providing the necessary tools right at your fingertips.

- OSBP Mobile is designed to help:
 - Provide active contract listings and requests for proposals
 - Network with Small Business Specialists at each NASA Center
 - Explore the latest Agency prime metrics data
 - Inform you of the latest small business news and events



Come make a BIG difference at NASA!

OSBP Publications

OSBP provides many resourceful publications to the small business community.

The Small Business Guide to NASA
Small Business Industry Awards
NASA Industry Forum Success Stories
NASA OSBP Spotlight
Other Publications

To view/download, visit: https://www.nasa.gov/osbp/osbp-publications





Upcoming OSBP Learning Series

Online: https://www.nasa.gov/osbp/regional-outreach
Online: https://www.nasa.gov/osbp/learning-series

OSBP Learning Series

February 15, 2023

NASA Opportunities featuring Agency Research Centers

March 15, 2023

Resources and Best Practices from NASA Federal Partners and Trade Associations

April 19, 2023

Update from the NASA Office of Procurement: Opportunities & Product Service Lines

Outreach Events January 26, 2023

Research and Develop Your Small Business Opportunities (Virtual Event)

April 27, 2023

NASA Small Business and HBCU Summit New Orleans, Louisiana

Register Today!





OSBP Learning Series: CALL FOR NEW TOPICS!!

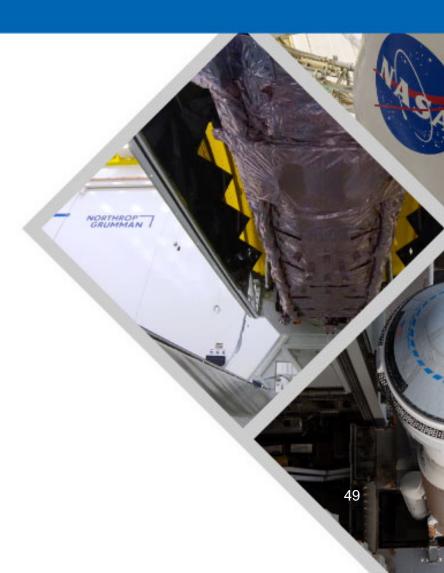
NASA's Office of Small Business Programs is NOW ACCEPTING new topics ideas for our monthly OSBP Learning Series Webinars!

We would LOVE to hear from you!!

Please submit your topic ideas to smallbusiness@nasa.gov!

Learn more about NASA OSBP!

www.nasa.gov/osbp



Contact Information

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smallbusiness@nasa.gov



