National Aeronautics and
Space Administration

ARTEMIS

NASA Small Business Technology Transfer (STTR) Program Overview

Space Technology Mission Directorate (STMD)

SBIR · STTR
America's Seed Fund™
POWERED BY NASA

Agenda

- SBIR/STTR Basics
- Program Impact & Overview
- Upcoming Opportunities

The SBIR and STTR Programs

Small Business Innovation Research (SBIR)

- A set-aside program for small business to engage in Federal R&D with potential for commercialization
- Currently, 3.2% of Federal agencies Extramural R&D budgets >$100M per year

Small Business Technology Transfer (STTR)

- A sister set-aside program to facilitate cooperative R&D between small business concerns and U.S. research institutions with potential for commercialization
- Currently, 0.45% of the extramural research budget for all agencies with a budget >$1B per year

SBIR + STTR Programs

Department of Defense (DoD)

Department of Health and Human Services (HHS)

Department of Energy (DoE)

National Aeronautics and Space Administration (NASA)

National Science Foundation (NSF)

SBIR Program Only

Department of Agriculture (USDA)

Department of Education (DoEd)

Department of Transportation (DoT)

Environmental Protection Agency (EPA)

Department of Homeland Security (DHS)

Department of Commerce (DoC)

Eligibility Requirements

SBIR (Small Businesses)

- For-profit business
- Less than 500 employees
- Must be located in the United States and at least 51% owned and controlled by one or more individuals who are citizens of, or permanent resident aliens in, the United States

STTR (Small Businesses & Research Institutions)

- All of the SBIR requirements listed on this slide apply to the Small Business prime; plus…
- Cooperative R&D effort with a U.S. Research Institution (RI)
- Minimum 40% by small business, 30% by RI
- Principal Investigator can be from Small Business or RI
- The RI must be an accredited college/university, a federal R&D center, or other non-profit research organization

MISSION

Create opportunities through SBIR/STTR awards to leverage small business knowledge and technology development for maximum impact and contribution

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VISION

Empower small businesses to deliver technological innovation that contributes to NASA's missions, provides societal benefit, and grows the U.S. economy

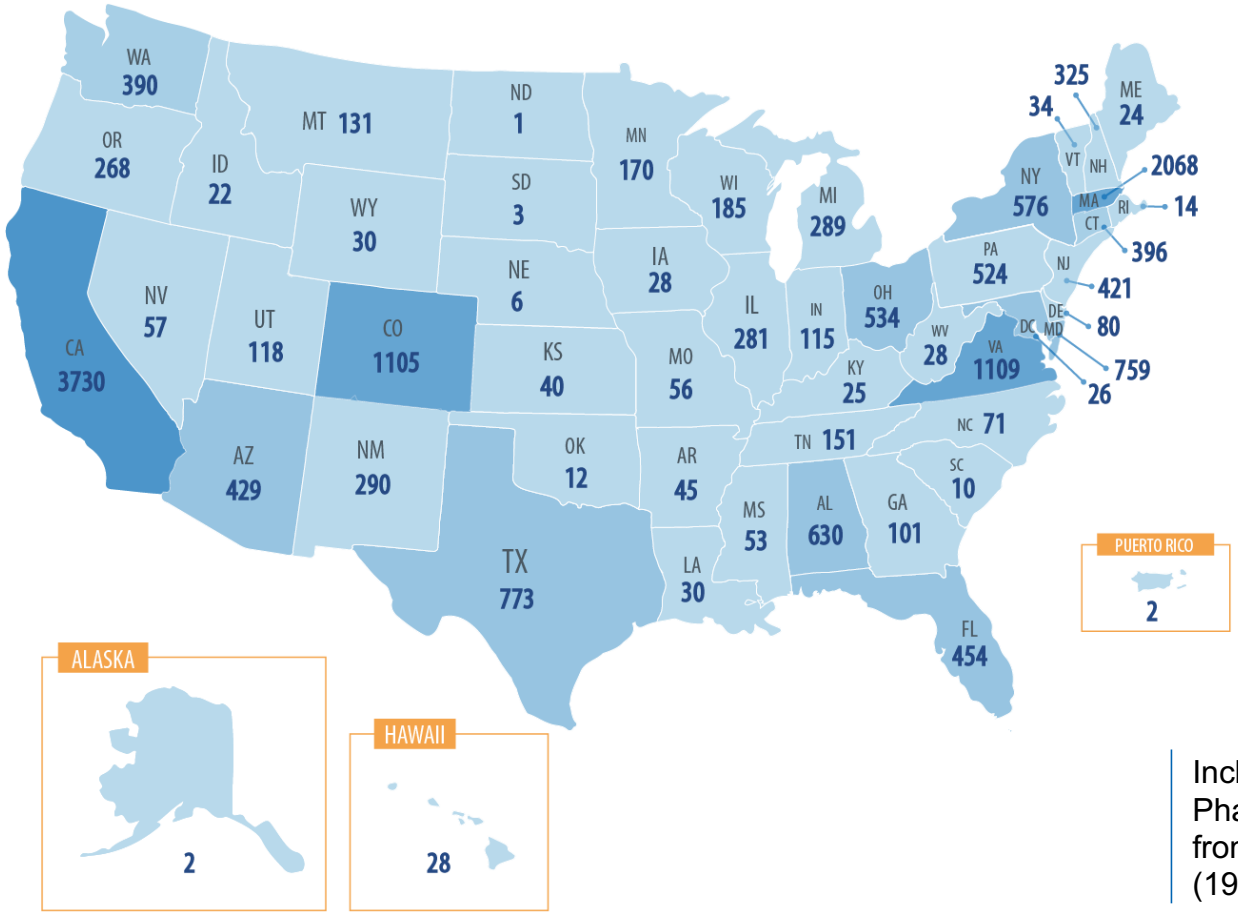
NASA SBIR/STTR Program

As a program under STMD, the NASA SBIR/STTR program funds the research, development, and demonstration of innovative technologies that fulfill NASA needs, including those needed for the **Artemis** mission.

NASA's SBIR/STTR program has **awarded more than $3.3 billion** to research-intensive American small businesses

Engineers and scientists from **more than 12,000** small businesses in all 50 States, DC and Puerto Rico have participated

Total Awards by State



Includes SBIR and STTR Phase I and Phase II awards from first Program award (1983) through July 2020.

NASA SBIR/STTR Opportunities

NASA SBIR/STTR PHASES

PHASE I
Idea Generation

$125,000
SBIR 6 months
STTR 13 months

I-CORPS

PHASE II
Prototype Development

$750,000
24 months

PHASE III
Infusion/ Commercialization

Non-SBIR
Funding

POST PHASE II OPPORTUNITIES

PHASE II – E
Reqs matching funding
up to $375,000
6 to 12 months

CCRPP
Reqs matching funding
$500,000 to $3,000,000
24 months

Why Participate in STTR?

For the Research Institutions

- Opportunity to create/inspire entrepreneurship as a vital part of the educational experience
- Another opportunity to access federal funding for research
- An opportunity sometimes to get RI Intellectual Property (IP) involved in the project and licensed
- Another means for visibility in the research community, generate peer-reviewed pubs., etc.

For the Small Businesses

- Opportunity to leverage expertise and innovative ideas from professors/research staff/students
- Opportunity to leverage specialized facilities and experimental equipment at the RIs when often small businesses may not be able to afford such facilities on their own
- Opportunity to create pipeline of usable talent for company from the RIs
- Develop working relationship & credibility with government R&D
- Fosters partnerships with large corporations and academia
- Provides recognition and visibility for the business
- Participation attracts venture capital and other funding sources

Intellectual Property

Patent Rights

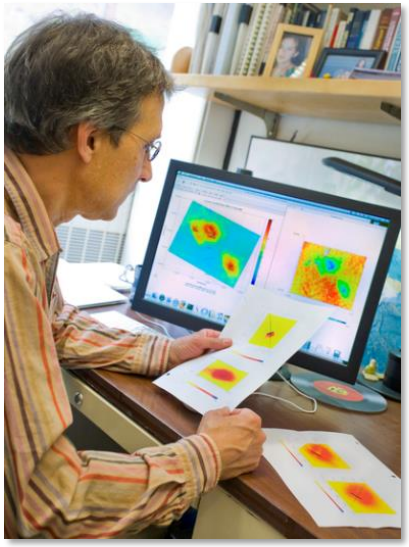
Small business concerns normally retain the principal worldwide patent rights to any invention developed with Government support

Government Use

The Federal Government receives a royalty-free license for Federal Government use

U.S. Patent and Trade Office
http://www.uspto.gov/

Data Protection



Protection Period

Data generated from your R/R&D is protected from public disclosure for no less than 20 years from award date (Phase I, Phase II, or federally funded Phase III)

Government Use

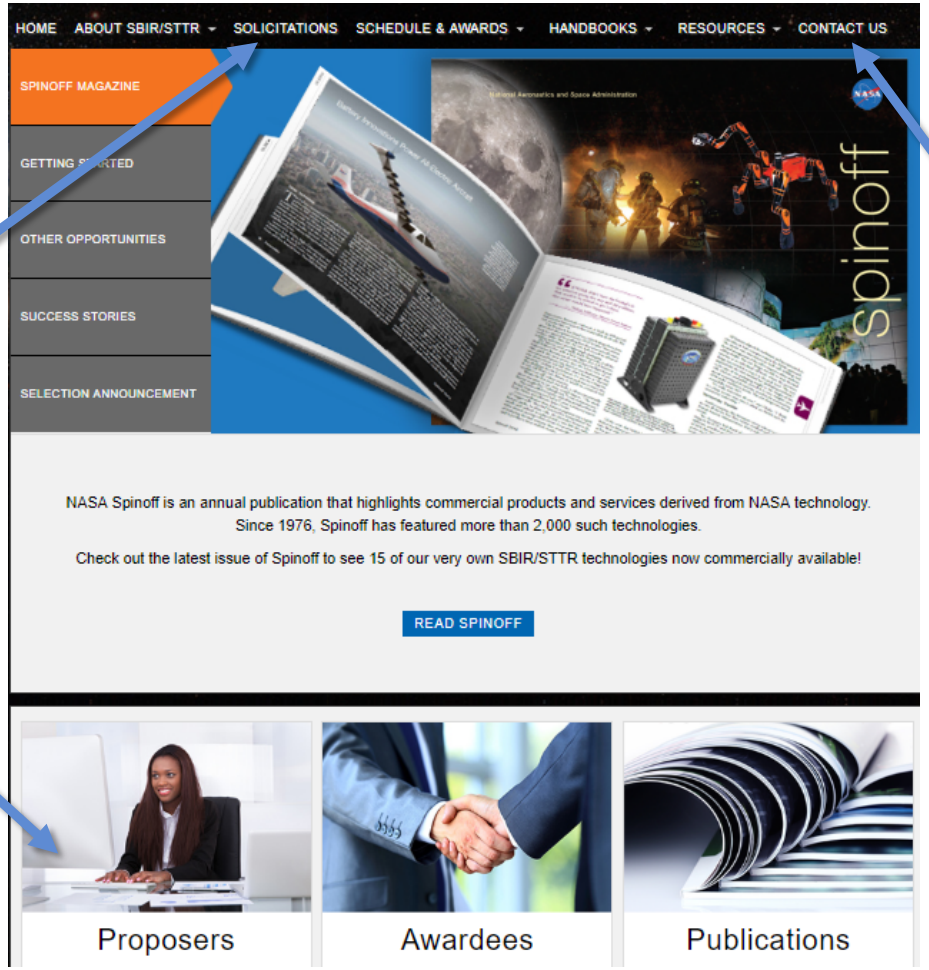
The Government retains a royalty-free license for Government use of any technical data delivered under an SBIR award, whether patented or not

Program Website | sbir.nasa.gov

Research NASA's Needs
Annual Solicitations including past years

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

Looking to Join the Program?
- Program Basics
- Forms Library
- Model Contract
- In-depth Training Resources and FAQs



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

2020 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, Materials Research, 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

Submission Checklist

- Submit proposal prior to the deadline
- Perform the “Endorse Proposal” step, which is the final step in the submissions process
- Make sure you meet the format requirements (margin and font size, page limitation)
- Make sure you, as the RI, register correctly (STTR Requirement)
  - For STTR proposals the RI needs to endorse the Research Agreement prior to the proposal being complete and submitted. The RI will need to:
    - Create an account in the Proposal Submission EHB
    - Register under the firm using its EIN, State, and PIN so the RI is attached to the proposal correctly
    - Choose the RI option at the bottom of the page when entering your name, email, phone, etc.

National Science Foundation (NSF) Space Topic

NSF Space Topic

- NSF is including a Space topic in its SBIR/STTR Program
- Given different program goals and criteria, it's likely that one agency would be a much better fit for any specific project.
- Learn more about the differences between the NSF SBIR/STTR and NASA SBIR/STTR Programs at:

https://sbir.gsfc.nasa.gov/content/nsf-sbirsttr-space-topic-what-you-need-know

SAVE THE DATE. OCTOBER 20-22, 2020
Hosted by the NASA SBIR/STTR Program

Innovation & Opportunity

VIRTUAL CONFERENCE

Propelling your business. Transitioning your technology.

The Innovation & opportunity conference provides you with resources, engagement opportunities, and actionable next steps towards transitioning your technology — whether you are just starting your SBIR/STTR journey or ready for a Phase III.

NASA SBIR/STTR PROGRAM

2021 PHASE I SOLICITATION

OPENING SOON

November 9, 2020 – January 8, 2021

Questions?

Visit our Website
www.SBIR.NASA.gov

Sign up for our Newsletter
https://sbir.nasa.gov/info

Contact the Helpdesk
301.937.0888