National Aeronautics and Space Administration

The Concept

Small Business Innovation Research
Small Business Technology Transfer

Volume 6, Number 2 | Summer 2016

Program Corner

Hi innovators!

I have thoroughly enjoyed my first few months working with small businesses and entrepreneurs on advancing cutting edge research and development for the aeronautics and aerospace industry through the SBIR and STTR programs. NASA's wide-ranging science, exploration, and research missions are ambitious and technology drives our journey to Mars. Our SBIR and STTR partners are a critical part of the large domestic and international community working together to execute against these exciting missions.

I come to this program with a passion for and belief in the agility, novelty, and innovation that small businesses and entrepreneurs bring to science and technology. I believe in the importance of transparency, collaboration, and two-way communication between small businesses and NASA. Also, I believe it's important to balance two of the important outcomes from the SBIR/STTR programs: addressing NASA needs through infusion of SBIR/STTR technologies in NASA missions and the commercialization of technologies and products for the broader commercial space industry and nation as a whole. I look forward to working with you to make this program even more nimble and effective in driving innovative research.

Sincerely,

Jenn Gustetic
Program Executive
SBIR/STTR

Featured Content

SBIR/STTR Subtopic Workshop

September 12 - 13, 2016

NASA Ames Research Center, Bldg 3
Moffett Field, CA 94035-1000

This event seeks to build NASA's relationship with the small business community and increase communication between NASA and potential proposers. Attendees will have the opportunity to receive a general overview of NASA's SBIR and STTR programs and interact with the NASA SBIR/STTR Program Experts, Mission Directorate Representatives, and NASA Technologists.

Attend to learn about, ask questions, and provide feedback on draft related subtopic areas. The information obtained through the workshop may result in small refinements to the FY17 SBIR/STTR solicitation, but the primary purpose of this workshop is to inform development of the FY18 SBIR/STTR solicitation.

>> Learn more about this workshop!

* This is an interactive document.
Mouse over links and images for further details.

NASA SCaN | SBIR Commercialization Workshop
September 14

Location:

NASA ARC

Building 3

Moffett Field, CA

- Learn about Space Communications and Navigation (SCaN) technology needs
- One-on-Ones with prime contractors
- Develop partnerships and collaborate

Come join the SBIR/STTR program at the upcoming SCaN workshop! The SCaN program is responsible for providing communications services for all of NASA's missions.

>> Learn more about this workshop!

Tipping Point Solicitation
Proposals due October 6

NASA's Space Technology Mission Directorate (STMD) continues to develop opportunities for partnering with the commercial space sector. One of STMD's partnership opportunities is the Tipping Point solicitation, designed to support technology development of interest to the commercial space sector that is at a "tipping point". This year's Tipping Point solicitation has been released and proposals are due October 6, 2016.

STMD plans to make at least $15M in awards across these two topics -

- Small Launch Vehicle Technology Development
- Small Spacecraft Capability Demonstration Mission

>> Learn more about this solicitation!

HBCU Road Show
September 27 – 29

Featured Highlights

NASA's Office of Small Business Programs (OSBP), along with the Office of Education (OE) and the Space Technology Mission Directorate (STMD), will be hosting the NASA Historically Black Colleges and Universities (HBCU)/Minority-Serving Institutions (MSI) Technology Infusion Road Tour. Together, they will provide an open platform for HBCU and MSI attendees to learn about NASA's Mentor-Protégé Program (MPP), STMD's Small Business Innovative Research/ Small Business Technical Transfer (SBIR/STTR) opportunities as well as OE's grant and cooperative agreement opportunities.

By participating, attendees will learn program fundamentals and ways to pursue procurement and technical opportunities. Guest speakers will also include past and present MPP and SBIR/STTR participants to discuss lessons learned and their success stories.

This event will be held at Florida A&M University.

>> Learn more!

Giner Inc., Newton, MA

Dimensionally Stable Membrane (DSM) for High Pressure Electrolyzers

MISSION DIRECTORATE - Science

PHASE III SUCCESS - $2 million in commercial revenues stemming from the NASA SBIR technology

Any human mission in space, whether it is a 6-month stint aboard the International Space Station (ISS) or an interplanetary exploration expedition, requires a life support system that provides oxygen to the crew while removing carbon dioxide. Since oxygen is not readily available on orbit as it is on Earth, oxygen is made through a process known as electrolysis, where electricity is passed through water – splitting the water into hydrogen and oxygen gases.

Since the life support system for the ISS provides between five and twenty pounds of oxygen per day, pressurized oxygen storage tanks are used to ensure a continual supply. Looking to increase the efficiency of electrolysis for energy storage, NASA's SBIR program solicited proposals that would advance the technology in the area of highly efficient, high-pressure proton-exchange-membrane water electrolyzers. Giner's proposed technology, which includes a stronger electrolysis membrane, not only resonated with NASA, but attracted some large customers in the commercial sector as well.

>> Read More...

IMAGE COURTESY | ESA

Phoenix Integration, Blacksburg, VA

Modeling Based Decision Support Environment

MISSION DIRECTORATE - Human Exploration and Operations

PHASE III SUCCESS - $1 million in sales of its SBIR funded ModelCenter® Design Space Visualization software to NASA, the Department of Defense, and commercial customers

Scientists and engineers at NASA are constantly inundated with raw data and numbers in an attempt to choose the best design option for future spacecraft. Since you can't design a space vehicle by looking at one engineering discipline alone, multiple components need to be considered simultaneously in order to select the best choice. What would be the most fuel-efficient option?

Are there lighter materials that could be used? Which design would be ready to launch the soonest? These are some of the questions that must be answered long before a vehicle is built and launched into space. Phoenix Integration, through the NASA Small Business Innovation Research (SBIR) program, has developed a means to deliver engineering information in a more coherent way. Acting much like the conductor of an orchestra, Phoenix coordinates the execution of existing NASA software tools and displays the resulting data in ways that help users make more informed decisions about design engineering. The technology can be used to accurately assess and trade off competing concepts for a wide range of mission and vehicle design initiatives.

>> Read more...

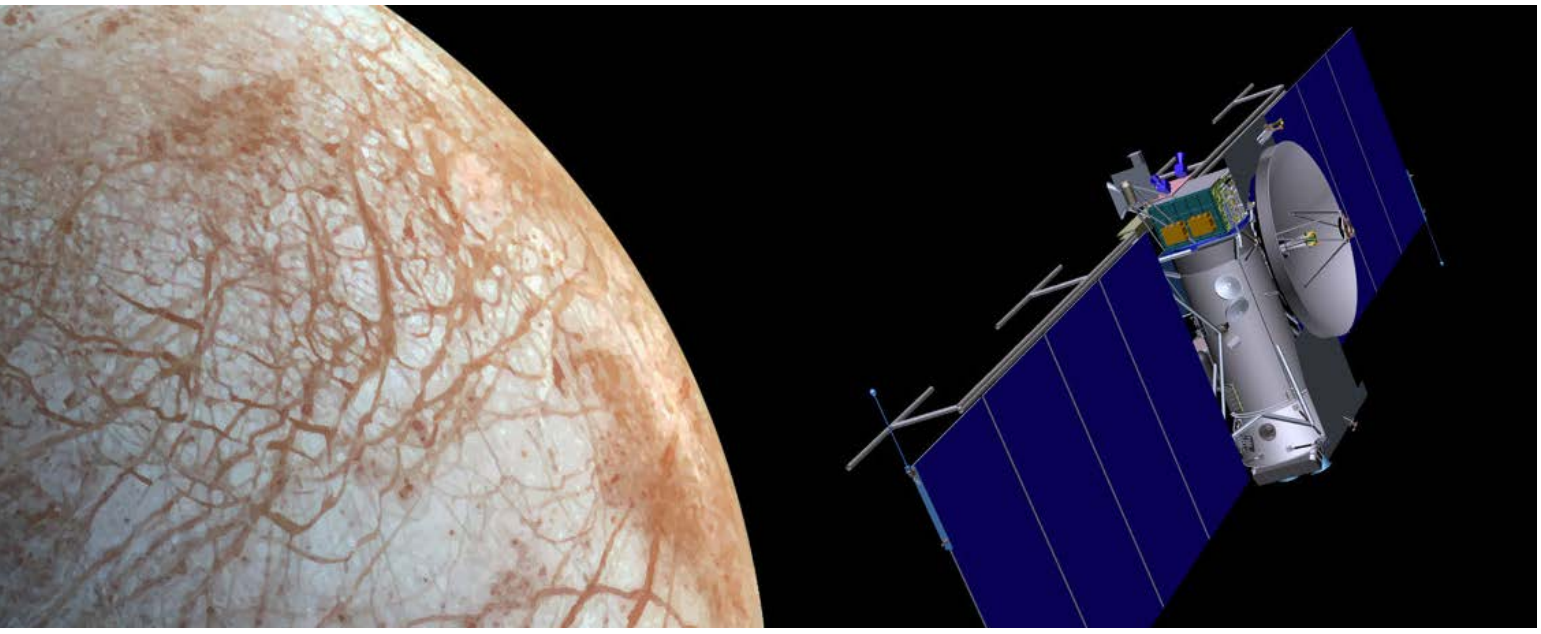

IMAGE COURTESY | ESA

*An important objective of the NASA SBIR and STTR Programs is to enable small businesses to achieve success in their endeavors. Featuring Success Stories is one method we use to highlight successful NASA SBIR/STTR projects that have been commercialized or infused. If you would like to submit your SBIR/STTR technology for consideration as a Success Story, please email: arc-sbir-outreach@nasa.gov

NASA SBIR/STTR

NASA's SBIR/STTR website provides details on the programs, solicitations, resources, and more.

TechSource

Information on NASA's SBIR/STTR Phase I and II awarded projects.

Space Technology Mission Directorate

STMD rapidly develops, demonstrates, and infuses revolutionary, high-payoff technologies through transparent, collaborative partnerships, expanding the boundaries of the aerospace enterprise.

Success Stories

A collection of articles about successful companies that have participated in the NASA SBIR and STTR Programs.

Tech Briefs

Featuring exclusive reports of innovations developed by NASA and its industry partners, contractors that can be applied to develop new improved products and solve engineering or manufacturing problems.

Technology Innovation

Publication about NASA's technology needs and opportunities, as well as interesting facts and feature articles about our successes.

Spinoff

Providing NASA's premier annual publication of successful commercial and industrial applications of NASA sponsored technology.

Office of the Chief Technologist

OCT is responsible for developing and executing innovative technology partnerships, technology transfer and commercial activities and the development of collaboration models for NASA.

Collaborate

Selection Announcements

STTR 2015 Phase II
September 8, 2016

* Note: Selection announcement dates are subject to change

Mark Your Calendar

NSBE Aerospace Conference
8/24 - 8/27 - Arlington, VA

SBIR/STTR Subtopic Workshop
9/12 - 9/13 - Moffett Field, CA

SCaN Commercialization Workshop
9/14 - Moffett Field, CA

Small Business Regional Industry Day
9/16 - Boston, MA

DENT: Space
9/21 - 9/22 - San Francisco, CA

Roadshow HBCU Outreach
9/27 - 9/29 - Tallahassee, FL

SBA Regional SBIR Conference
10/05 - 10/06 - Boston, MA

Supply Chain Conference 2016
10/25 - 10/27 - Greenbelt, MD

Case Western Reserve University Summit
10/26 - 10/28 - Cleveland, OH

Please send general comments and questions to:
arc-sbir-outreach@nasa.gov