

The Concept

Welcome to the first NASA SBIR/STTR quarterly newsletter!

Many exciting new changes are occurring within the NASA Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs as well as notable innovations emerging from them. This past year, **the SBIR program celebrated its 25th year of connecting small businesses with federal research and development opportunities**, and NASA continues to leverage this program to stimulate technological innovations that will impact aeronautics research, space exploration, science, and even it's space operations missions, for generations to come.



Highlights:

- ⇒ **Opportunity for Enhancement funding**
- ⇒ **NASA Mentor Protégé Program**
- ⇒ **Tracking Infusion with InXitu Inc. and Combustion Research and Flow Technology**
- ⇒ **Tips on Success From Technology Infusion Managers**

The purpose of this newsletter is to provide information of interest to our NASA SBIR/STTR awardees, small business concerns, and university and high-tech industrial communities. Our newsletter will include NASA SBIR/STTR news, events, informative articles and contact information for general program inquiries, as well as pointers to Web sites for the latest technical information on NASA mission programs. This newsletter is being provided on a first-time basis to current and former NASA SBIR/STTR awardees. Future issues will be available on a general subscription basis by contacting subscribe@sbirnews.reisys.com.

The success of the NASA SBIR/STTR programs have been a result of strong partnerships that create pathways for technology infusion into NASA's mission directorate core programs and projects. I look forward to the new endeavors that we will create together.

-Carl G. Ray

NASA SBIR/STTR Program Executive

Find Yourself in NASA

[NASA SBIR Success Story Gateway](#)

Web site enabling small businesses to achieve success in their endeavors by highlighting successful projects.

[Spinoff](#)

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

[SBIR/STTR Hallmarks & Success Videos](#)

A collection of short videos about successful companies that have participated in the 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](#)

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

[TechSource](#)

Information on current and recently completed SBIR/STTR Phase II projects. Facilitates the transition of resulting technologies into further development, investment, and utilization for NASA.

At a Glance

- Eighty companies participated in one-on-one meetings with NASA and over 800 attendees stopped by the booth at the **2008 Fall National SBIR Conference** held in Hartford, Connecticut.
- **SBIR 2007 Phase 2 awards: 142**
- **SBIR 2008 Phase 1 awards: [348](#)**



Above: Companies meet with Level II Infusion Manager, Ryszard Pisarski, at Ames Research Center

Right: Jim Chern (GSFC) and Joni Richards (KSC) answer questions at the Fall Conference one-on-one meetings.



Above: NASA IPP-SBIR/STTR panel discussion with Bob Yang, Gynelle Steele, and James Stegeman

Solicitation Dates:

April 15- STTR Phase 2 Selection Announcement

July 7– Phase I Solicitation Period Opens

Sept. 3- Phase I Solicitation Period Closes

Nov. 23- Phase I Selection Announcement

Mark Your Calendar

April 14-15- [SBIR/STTR Conference \(Indianapolis, IN\)](#)

April 21- [SBIR/STTR Phase I Proposal Writing Workshop \(Jonesboro, AR\)](#)

May 13-14- [AEROINNOVATE \(Oshkosh, WI\)](#)

June 30- July 1- [NIH SBIR/STTR Conference \(Omaha, NE\)](#)

Sept. 21-25– [Beyond Phase II SBIR Conference \(Orlando, FL\)](#)

Nov. 2-5- [National SBIR Fall Conference \(Reno, NV\)](#)

More Funding through Phase 2 Enhancement (2-E)

Opportunities for additional funding are available through the [Phase 2 Enhancement \(2-E\)](#) option in which a limited number of active Phase 2 awardees are encouraged to transition Phase 2 SBIR/STTR projects into NASA programs and missions. It is an incentive to Phase 3 awards through providing cost share extension of the R&D efforts to the current Phase 2 contract, to meet the product/process/software requirements of a NASA program/project or third party investor to accelerate and/or enhance the infusion/commercial potential of the Phase II project, moving it into Phase 3. Under this option, **NASA will match with SBIR/STTR funds up to \$150,000 of non-SBIR/non-STTR investment** from a NASA project, NASA contractor, or third party commercial investor to extend an existing Phase II project for up to 4 months to perform additional research. The total cumulative award for the Phase II contract plus the Phase 2-E match will not exceed \$750,000.00 of SBIR/STTR funding. The Non-SBIR contribution is not limited since it is regulated under the guidelines for Phase 3 award.



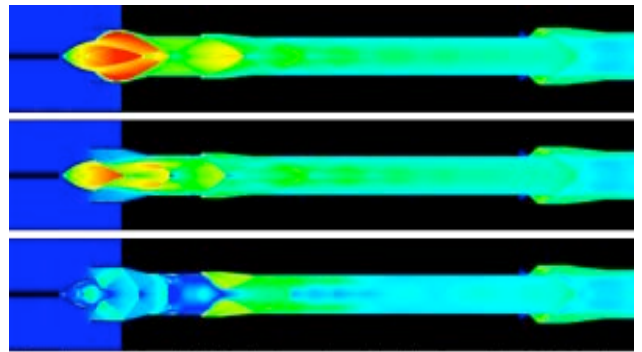
SBIR Hub

NASA technology needs continue to create opportunities for small businesses and universities to innovate with NASA. **Level II Program Manager, Gary Jahns**, executes the strategic direction of the SBIR/STTR program to ensure that those opportunities cultivate partnerships and technology infusion.

Located at Ames Research Center, the Level II program office coordinates operations and communication among all 10 Field Centers.

Infusing Technologies into NASA: Phase III Successes

Computations Fluid Dynamics (CFD) Tool Impacts Design of High Altitude Facilities
Combustion Research and Flow Technology, Inc. (CRAFT Tech) was recently awarded a Phase 3 SBIR contract to conduct Computational Fluid Dynamics (CFD) heat transfer modeling at Stennis Space Center. Utilizing SBIR awarded funds, the company established a solid foundation of computational tools that directly impacted the analysis in designing the complex A-3, steam ejector trains, the facility at Stennis as well as the B-2 cooling water spray nozzles for the **Ares V cargo launch vehicle to Mars.**



Shutdown of the J-2X Engine in a simplified design of the A-3 Facility operating with two stages of steam ejectors (Mach No.)

Become a Protégé

SBIR Phase 2 companies now can participate in the **NASA Mentor Protégé Program (MPP)** in which small **businesses are matched with large business mentors that provide training to the protégé** in return for credit on their NASA subcontracting plan. In addition, MPP companies will be exclusive participants in the new award fee pilot program that allows mentor firms to earn award fees for meeting contractual requirements on the mentor/protégé agreement.



Above: Terra XRD/XRF, with the Automated Sample Handling system as a component, is operated remotely in the Dry Valleys of Antarctica.

Below: InXitu's Automated Sample Handling system is implemented in CheMin for the Mars Science Laboratory 2009



X-Ray Diffraction Analysis Device Minimizes Sample Preparation

InXitu, Inc. designed an Automated Sample Handling (ASH) system for planetary powder X-ray diffraction instruments. The system has been implemented in **CheMin, a chemistry and mineralogy instrument developed by Ames Research Center for the Mars Science Laboratory 2009 mission.** Building and testing prototypes early in Phase 1 by leveraging SBIR awarded contracts of over \$640,000, the company demonstrated the potential of the technique for future NASA missions, leading to further development in Phase 2 and eventually a US patent filed by NASA for this

Connections to NASA

NASA SBIR/STTR
www.sbir.nasa.gov

Innovation Partnerships Program
www.ipp.nasa.gov

Small Business Administration
www.sba.gov

National Technology Transfer Center (NTTC) www.nttc.edu

NTTC/NASA Small Business Innovative Partnerships Program (SBIPP)
www.sbipp.com/technologyportfolios

NASA Technology Needs
[Tech Needs](#)

TIMs' Tips on Success

From NASA's Technology Infusion Managers

- **Be diligent in your communications** with your Contracting Officer's Technical Representative (COTR) throughout the Phase 2 contract. The more informed your COTR is, the more help he or she can provide.
- Your COTR can invite subject matter experts as well as program/project managers to your meetings and reviews, giving you additional expertise advice on development.
- Submit proposals to multiple agencies and **increase your chances of success**. From the time a solicitation is drafted, until a Phase 2 is completed is a four-year cycle!
- **TIMs are your best gateway for infusing your technology into NASA!** Include them in any briefing, so that they stay up to date on your progress and achievement.



Above: TIMs discuss program goals at the Quarterly meeting in December 2009.

Partners' Experiences

Advanced Fuel Research | Combustion Research and Flow Technology

- NASA technology needs are always shifting in emphasis, so it is important to **stay up to date and keep resubmitting proposals**.
- **Disconnects in communication can be solved by briefing your COTR** as well as scheduling monthly meetings, telecommunications, and tag ups.
- **Many companies are unaware that TIMs are available for assistance.** They can direct you to the appropriate research topic, connect you with other centers, and most importantly **provide you with support in commercialization and infusing your technology into NASA missions.**
- When submitting multiple proposals that are similar, but have very different tasks, **make sure to clarify and clearly state the objectives** as identical proposals are flagged.

Who's Who at the Centers

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