



The Concept



The 2010 SBIR/STTR program is in full swing. On February 3, 2010 NASA Administrator Charles F. Bolden named Robert D. Braun as the agency's Chief Technologist. Mr. Braun now serves as the principle advisor, as an advocate on matters concerning agency-wide technology

policy and programs, and heads up the Office of the Chief Technologist. The SBIR/STTR program has been moved under the Office of the Chief Technologist and become apart of a program called "Early Stage Innovation" where it will have the strategic oversight of the "Space Technology Program".

The SBIR/STTR programs will continue to provide the infrastructure and allow for the development of independently created technologies for NASA missions, programs, agency partnerships, and commercialization. Stay tuned as more of these exciting changes unfold.

Looking forward to further developing and growing with you in this new year.

-Carl G. Ray
NASA SBIR/STTR
Program Executive

Highlights

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Find Yourself in NASA

[NASA SBIR Success Story Gateway](#)

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

[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.

[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.

[Spinoff](#)

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

executive corner

At a Glance

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- The Small Business Administration (SBA) currently has funding available under The Federal and State Technology (FAST) Program. Interested parties should go to www.grants.gov to obtain all necessary information. The FAST Announcement will close on May 10, 2010. All 50 states, the District of Columbia, Puerto Rico, the Virgin Islands, Guam and the American Samoa are eligible to participate in the FAST program.
- The SBIR program is currently still under an extension until July 31, 2010.
- The NASA Kennedy Space Center SBIR/STTR Infusion Office hosted the Lunar Surface Systems (LSS)/SBIR Technology Workshop in Houston, Texas in November 2009 which brought together carefully vetted SBIR technology companies with LSS Domain System Engineers who have specific technology needs. The objective of this workshop was to discover Phase III opportunities that would further develop existing SBIR technologies in order to reach their potential of becoming an infusion success.

Solicitation Dates

- July 7– Phase I Solicitation Period Opens
- Sept 2- Phase I Solicitation Period Closes
- Nov 23- SBIR Phase I Selection Announcement

Mark Your Calendar

- Apr 29 – Phase I Proposal Workshop (Melbourne, FL)
- May 4 – Phase I Proposal Workshop (Jacksonville, FL)
- May 6 – Advanced SBIR Strategies to Improve Transition & Business Success (Herndon, VA)
- Jun 7-9– Navy Opportunity Forum (Crystal City, VA)
- Sept 13-17– Beyond Phase II Conference (San Antonio, TX)

- The 2009 Fall National Conference in Reno, NV offered opportunities for project developers and NASA to gather for a valuable exchange of information and networking with peers involved in innovation.



Left to right: NASA at the National SBIR Conference in Reno, NV; Technology Infusion Manager, Joni Richards, from Kennedy Space Center met with companies at the LSS/SBIR workshop; LSS / SBIR workshop flyer; Companies at the LSS/ SBIR workshop get to know one another during break.

Matching Funds Program for North Carolina Small Businesses

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The North Carolina Board of Science and Technology announced the release of their FY 2010 Solicitation for the One North Carolina Small Business Matching Funds Program. The Program awards matching funds to North Carolina small businesses who have been awarded a SBIR or STTR Phase I award.

The maximum matching grant award size is 50% of the Federal SBIR/STTR Program award, not to exceed \$50,000. Companies that have previously received a match award under this program under any previous Solicitation are ineligible to apply for a match award during the FY 2010 Solicitation. The solicitation is available at the Board's website: <http://www.ncscitech.com>.



opportunities

Infusing Technologies into NASA: Success Stories

Thermal Control Paint Flown to International Space Station for Testing

Applied Material Systems Engineering, Inc. (AMSENG) has developed next generation thermal control paints under SBIR funding. Collaborating with Glenn Research Center, coupons of the paint were installed in the Materials International Space Station Experiment 7B (MISSE 7B) to test durability. MISSE 7B was recently launched aboard Atlantis on mission STS-129. The new thermal control paint, known as Thermal Control Material Systems (TCMS), has the potential for use on CEV as a heat rejection or protective coating for hardware and sub systems. Specific application may include the CEV radiator, which is expected to operate at high temperatures.



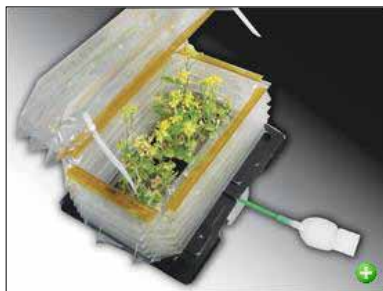
Above: Thermal Control Material Systems (TCMS).

Right: The MISSE 7B panel currently being tested on the ISS.



Vegetable Production System supports International Space Station Research

Orbital Technologies Corporation - Collaborating with Kennedy Space Center through an SBIR Phase III contract, Orbital Technologies has continued to further develop their Vegetable Production System that supports the International Space Station (ISS) Research. VEGGIE is a deployable plant growth chamber with LED lighting that is part of a larger Innovative Partnerships Program (IPP) Seed Fund project selected by the Exploration Systems Mission Directorate to advance ISS research.



Above: ORBITEC Biomass Production Education System.

Left: With its unique bellows system and hydration septum, the Space Garden is already being used in dozens of education centers.

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
www.techbriefs.com

technology infusion

TIMs' Voices



The SBIR/STTR community and all of NASA are saddened at the sudden loss of Dr. E. James "Jim" Chern who passed away unexpectedly while on business travel on December 1st, 2009. Jim served as Goddard's manager of SBIR since 1997. His dedication to ensuring that Goddard's SBIR/STTR programs were aligned

with mission technology was well respected in the field. His devotion to his work was recognized by colleagues across the country and through numerous awards.

His commitment to NASA dates back to when he joined the agency in 1989. Initially employed with the Materials Engineering Branch, he evaluated technologies for space flight assurance. During his tenure with the Materials Engineering Branch, he worked on inventions related to detecting residual stress in materials and eddy current testing. Jim held six patents and was an expert in the field of non-destructive evaluation. Of his many achievements, Jim received the NASA Exceptional Achievement Medal in 1996, the Goddard Space Flight Center James J. Kerley Technology Transfer/Commercialization Award in 1996 and he authored more than 20 NASA Tech Briefs disclosures and more than 90 technical journal and conference presentation papers.

Jim was born on October 1, 1951 in Taichung, Taiwan. He attended Soochow University in Taiwan and moved to the United States in 1976 to continue his studies. He earned a doctorate in physics from the College of William and Mary in Virginia.

Jim is survived by his wife, Shao-Hwa Chern and son, Bobbie Chern, along with a host of siblings, cousins, nephews, nieces and other relatives. Bobbie was the recipient of a Mitchell-Beal Memorial Scholarship of NASA Federal Credit Union in 2001, which Jim often spoke of proudly. In addition, Jim expressed pride in Bobbie who has achieved many outstanding academic accomplishments.

The SBIR/STTR community will miss Jim for his sense of humor, devotion to NASA and commitment to excellence.

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guide to success