National Aeronautics and Space Administration

The Concept

Small **B**usiness **I**nnovation **R**esearch
Small Business **T**echnology **TR**ansfer

Vision | Innovation
Infusion | Collaboration
Commercialization

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Executive Corner

Since I joined the SBIR/STTR Program a little over a year ago, I have learned a great deal about the way our internal management structure implements the program. This insight into program operations is only one component in how we can best serve you, the Small Business Concerns and Research Institutes.

As 2012 comes to an end and 2013 begins with new opportunities and challenges, I would like to focus on how we help our SBIR and STTR partners transition from our program to commercial success. I invite you to contribute your ideas to how we may best do this by getting in touch with us, particularly at events such as NASA Technology Days in Cleveland, Ohio on November 28-30th. Come meet with me, SBIR Technology Infusion Managers, and other program managers to share your experiences and ideas on what small businesses like yourselves need from us as a first-time NASA proposer or veteran SBIR awardee to commercialize technologies.

Your support in the program drives us to constantly make improvements. We plan on being with you every step of the way and ask that you be patient with all of the changes that will take place in the new year. Finally, as a reminder, the 2012 General and Select Solicitations come to a close on November 29th. We are excited to see the proposals that will propel this Nation and NASA forward into 2013 and beyond.

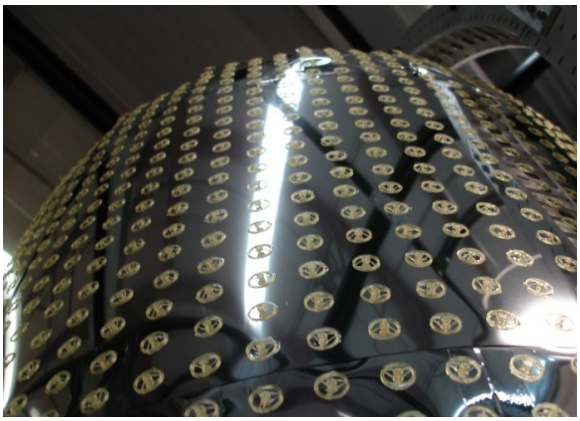
Sincerely,

Richard Leshner
Program Executive
NASA SBIR/STTR

FEATURE CONTENT

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

Next-Gen Insulation Could Enable Long Duration Missions



Quest scientists and engineers, teaming with Ball Aerospace, have developed a next generation multilayer insulation. Innovative Integrated MLI offers advantages over current thermal insulation, and could help solve NASA's requirements for storing cryopropellants, enabling long duration missions beyond Earth's orbit. NASA has funded Quest with multiple SBIR awards, from Phase I's through Phase III procurement, which has allowed Quest to conduct R&D and mature our technologies.
Quest has developed different versions of our Discrete Spacer Technology™ engineered for specific applications, such as protecting cryopropellants of launch vehicles and fuel depots; providing micrometeoroid/orbital debris protection; versions that operate both in-air and on-orbit; and Load Bearing MLI that self supports a Broad Area Cooling shield will be tested at NASA centers this Fall. Load Responsive MLI (LRMLI) provides the highest performance insulation for LH2 tanks for hydrogen-powered aircraft.

Quest's first products are designed for aerospace use, but we are also designing advanced thermal insulations for terrestrial use. LRMLI offers ¼" thick insulation for refrigerator/freezers with equal performance to 16" of foam insulation, providing new design opportunities and lower energy usage. Wrapped MLI for industrial insulated hot or cold transfer pipe has excellent prototype performance. Quest building insulation panels might one day provide R2500 per inch, compared to R4 for current fiberglass insulation!

www.questthermal.com