



U.S. Army Staff Sgt. Francis Macale secures a landing zone as a UH-60 Blackhawk helicopter flies away near the Koh Band district of Kapisa Province, Afghanistan, Sept. 14, 2009
U.S. Air Force photo by Cpt. Darrick B. Lee

Message from the Army SBIR Program Manager

In the July 2009 issue of the *Army SBIR Newsletter*, we shared some background on various initiatives geared toward improving technology transition. Transition of promising technologies and providing guidance to small businesses on how to leverage innovation into commercial success are the key goals of the Army SBIR Program. The SBIR Program Office has a dedicated staff who strive to assist small businesses in both these areas.

In order for us to support you, it is important that we have accurate data on your current efforts as well as any subsequent commercial success. To this end, we ask that you periodically review and update your records in the Army SBIR Small Business Portal (http://www.armysbir.com/small_buss_portal.htm). Keeping your information current ensures we have the correct contact information so that we can best serve and support you.

On a separate note, we are in the process of updating the Army SBIR website. The new site will improve accessibility with easier navigation, including Solicitation schedules and Upcoming Event information on the homepage. The changes will take place within the next month or so and we welcome your comments.

We are also interested in any questions you may have regarding the Army SBIR Program in general. Please send your questions to us at army.sbir@us.army.mil with the subject "Newsletter question" and we will select several "hot" issues to respond to in upcoming Newsletters.

Spotlight: Jean-Paul Hanna Technical Assistance Advocate (TAA)

Jean Paul Hanna is a Technical Assistance Advocate (TAA) on the Army SBIR Team. He provides transition assistance to Army Program and Product Management Offices and Research Centers in the Army as well as small businesses who participate in the Army SBIR Program. His ultimate goal is to transition SBIR-developed technologies into Army systems. Located in Warren, Michigan, he supports Tank Automotive Research Development & Engineering Center (TARDEC), PEO Integration, PEO Combat Support & Combat Service Support (CS&CSS), and PEO Ground Combat Systems (GCS).

As a member of the TAA team, Jean Paul offers life cycle support to current and future SBIR projects. With his thorough and complete understanding of the SBIR process, he gets involved with the small business to solve technical problems, minimize technical risks, identify and facilitate working relationships between the small business and potential transition partners and develop commercialization strategies for integration into Army systems. He also collaborates with Army organizations regarding technology transitions by connecting SBIR efforts with existing technology development roadmaps.

With an extensive government and automotive background, Jean Paul fits well into his Midwest region which has a large emphasis on ground mobility technologies. He was recently recognized by the Governor of Hawaii for his participation in the Hawaii 11th Biennial SBIR/STTR Conference where he represented the SBIR Program by instructing over 160 companies and entrepreneurs. He is currently working to utilize the Phase II Enhancement Program to offer existing Phase II SBIRs additional funding to continue their research efforts.

Jean Paul works on an integrated team of five TAAs located at the various Army centers. For more information go to www.armysbir.com/sbir/taa_desc.htm

The purpose of this newsletter is to provide the small business community, Army, DoD and other government researchers and leadership additional insight into the Army SBIR program.

Army SBIR Vision

To be the Army's premier source of innovative technology solutions, providing direct access to America's high-tech small business research & development community, enabling our Soldiers deployed around the world.

Army SBIR Helpdesk

The Army SBIR Helpdesk provides answers to program questions and assistance to small businesses and Government participants. It is operated Monday through Friday from 8 am to 5 pm (except on Federal holidays). You may reach the help desk by email at army.sbir@us.army.mil or by calling (703) 806-2085.



U.S. Army Soldiers from 2nd Battalion, 1st Infantry Regiment, 172nd Stryker Brigade Combat Team patrol in Mushada, Iraq. U.S. Army photo by Spc. Jeffrey Alexander

10.2 SOLICITATION

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| Solicitation Opens | May 19, 2010 |
| Solicitation Closes: Phase I proposals due | June 23, 2010 |

OUTREACH EVENTS

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|--------------------------------------|-------------------------|
| 2010 Spring National SBIR Conference | Apr 21-23, Hartford, CT |
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www.sbirnational.com

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| 12th Annual NIH SBIR/STTR Conference | June 2-3, Raleigh, NC |
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www.sbtdec.org/nihsbir2010

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| 2010 Beyond Phase II Conference & Expo | Sept 13-17, San Antonio TX |
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www.beyondphaseii.com

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| 2010 Defense Manufacturing Conference | Nov 29- Dec 2, Las Vegas |
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www.dmc2010.com

Have a Success Story?

We are continually seeking new "success stories" from small businesses, much like the one you see featured in this newsletter. Successful small businesses and their technology are highlighted in our yearly Commercialization Brochure, website, and quarterly newsletter. If you are interested in submitting a story, please contact the SBIR Program Management Office at army.sbir@us.army.mil.

Army SBIR Success Story



Innovative Wireless Technologies, Inc.
Forest, VA
www.iwtwireless.com



US Army Research Laboratory

Wireless Asset Tracking using a Mesh Network with Geo-location

Soldiers have a critical need for situational awareness and real time communications. Current systems have limitations due to a reliance on fixed infrastructure equipment which slows deployment, reduces visibility, and limits reachback communications outside the proximity of the fixed reader equipment. The task of manually tracking contents, location, equipment and materials in containers can be an enormous and highly complex job. Maintaining situational awareness in indoor and urban environments is difficult because buildings, walls and other obstacles obstruct Radio Frequency (RF) propagation. Under a phase II SBIR contract, IWT addresses this capability gap and has developed a rugged, multi-band transceiver and successfully demonstrated its geo-location capabilities.

IWT developed a cost and power efficient asset tracking system based on a wireless ad hoc mesh network with geolocation capability that provides real time communications and situational awareness without the need for infrastructure equipment. The system consists of a low cost, small size multi-band radio platform that can be expanded for broader applications that include blue force tracking, communication-on-the-move, sensor networks, and smart grid systems. It also includes a localized mesh network consisting of both one-way and two-way tags which provide a tiered, economical and scalable architecture based on cost and power consumption. The local network utilizes RF waveforms that are optimized for harsh RF conditions, which includes high path loss and severe multi-path concerns. It also incorporates embedded Global Positioning Systems (GPS) which establishes an anchor point for the absolute position of network tags.

Phase III Impacts

To date, this effort has received funding in excess of \$2M from the Army consisting of Phase I & II funding, \$594k in combined Phase II Plus funding from the Telemedicine and Advanced Technology Center and the Army Research Laboratory, and a \$700k Commercialization Pilot Program (CPP) contract to develop a field-testable prototype asset tracking system.

