

## *A Message from John Smith, Army SBIR Program Manager*



Photo by Erin A. Kirk-Cuomo

*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 answers program questions and provides assistance to small businesses and Government participants. Help Desk hours are Monday through Friday from 8 am to 5 pm EST (except on Federal holidays). You may reach the help desk by email at [army.sbir@us.army.mil](mailto:army.sbir@us.army.mil) or by calling (703) 399-2049.

I had the privilege to speak at the Ft. Detrick, Maryland Small Business Conference late last year and the Texas SBIR/STTR Summit earlier this year. These conferences focused discussions on how the state and local businesses can increase their share of research dollars to develop technologies for federal requirements. The SBIR Program was highlighted and heralded as a very effective tool for small businesses. Both conferences were exceedingly well attended and the networking and discussions were very fruitful.

I recently attended Picatinny Arsenal's SBIR Technology Day. The event showcased SBIR projects and small businesses to stakeholders and potential Army customers for potential transition. Attendance was outstanding and there were many opportunities for one-on-one access to Army Program Managers and Prime Contractors to discuss the SBIR developed technologies. This was highly successful bringing together a number of divergent groups (small business, primes, PMs and Army researchers) in an event where all benefited.

I strongly encourage you all to learn more about the various Outreach events and participate in upcoming conferences.

The SBIR Program has been reauthorized (P.L. 112-81) and will run until September 30, 2017. The new law contains many Program changes, but for now, the Army will be operating the Program as we have in the past until the Small Business Administration (SBA) publishes an updated policy directive. The Army has been assisting the SBA with this new Directive and the target for publishing is June 2012. We will keep you informed as this develops.

### *The Army SBIR Program welcomes four new Program Coordinators:*

Ms. Linda Taylor, Program Coordinator for the Aviation and Missile Research Development and Engineering Center (AMRDEC) at Redstone Arsenal, Alabama.

Mr. Angel Pomales-Crespo, Program Coordinator for Program Executive Office Command, Control and Communications Tactical (PEO C3T) at Aberdeen Proving Ground, Maryland.

Mr. Todd Wendt, Program Coordinator for Program Executive Office Soldier (PEO Soldier) at Ft. Belvoir, Virginia.

Ms. Jennifer Hayden, Program Coordinator at the Medical Research and Materiel Command (MRMC) at Ft. Detrick, Maryland.

The Program Coordinators are the focal point for all communications on SBIR and are responsible for the daily administration of the SBIR program within their participating organization to include facilitating transition of SBIR technologies into Acquisition Programs. Program Coordinators organize and integrate at their respective location the activities of topic authors, contracting personnel, Contracting Officer's Technical Representatives, Technical Evaluators, and Team Chiefs.



U.S. Army photo

## 12.2 SOLICITATION

Solicitation Pre-release 24 April 2012

Solicitation Opens 24 May 2012

Solicitation Closes 27 June 2012

## OUTREACH EVENT

[NIH SBIR/STTR Conference](#) 30 May-1 June, 2012

[National Space & Missile Materials Symposium Small Business Forum](#) 25-29 June, 2012

## 2012 Commercialization Brochure

We are currently in the process of drafting the next Brochure and are actively seeking new “success stories”. The Brochure is published annually and distributed within the Army and Department of Defense community and at conferences across the country. These brochures highlight program successes and provide visibility to small businesses that have successfully transitioned their SBIR developed technologies. You can download and view Commercialization Brochures at this link: <https://www.armysbir.army.mil/Commercialization/Default.aspx>

## Featured Army SBIR Success Story

### Soar Technology, Inc.

[www.soartech.com](http://www.soartech.com)

### U.S. Army Aviation and Missile Research, Development and Engineering Center Automated Wingman

Modeling and Simulation (M&S) play a major role in the development of new technologies for military and civilian applications. The Army uses M&S to improve effectiveness and efficiency in developing tactics, techniques, and procedures, while also reducing manpower and training expenses. Synthetic intelligent behavior models that simulate the behavior of Army wingmen can increase flexibility in training fixed-wing (FWA) and rotary-wing (RWA) aircraft pilots in team training, force integration, radio protocol, and coordinated tactics training.

A major shortcoming in the virtual environment is the lack of simulators to populate M&S environments. This problem can be alleviated by computer-generated entities, but these entities often lack adequately human-like behavior, making the environment less realistic which leads to ineffective training and evaluations. This SBIR project addresses this problem by presenting a computer-generated entity called the Automated Wingman (Auto-Wingman). AutoWingman is an entity control system that uses artificial intelligence and knowledge to implement a behavior system that provides a simulated wingman for a human pilot in a virtual cockpit. AutoWingman encodes the behavior of human pilots into a computational form that generates doctrinally correct behavior.

Soar Technology developed the core rotary-wing pilot behavior model and integrated it into existing simulation environments, such as, Mak Technologies’ VR-Forces and the Joint Semi-Automated Forces. AutoWingman is able to fly air assault, direct attack, search-and-rescue, and CAS missions and can fly any role in a mission, including the lead. AutoWingman accomplishes its missions by integrating a wide variety of intelligent capabilities, including real-time hierarchical execution of complex goals and plans, communication and coordination with humans and simulated entities, and the ability to accept and respond to verbal orders while in flight.

Phase III Impact — To date, Soar Technology has received \$3.3M in Phase III contracts from the U.S. Army Tank Automotive Armaments Command (TACOM). The technology components developed in this effort has been applied in a variety of systems and domains including joint tactical air controller (JTAC) training, pilot training, airspace management, air traffic control training, course-of-action planning, and most recently, multi-modal robotic control. Besides military applications, this technology can be extended to civilian aviation to serve in training and testing roles.



For more information on Army SBIR Success Stories, visit our website:

<https://www.armysbir.army.mil/Commercialization/Default.aspx>