



TRANSITIONS

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From the Director

With our 12th annual Naval *Opportunity Forum*[®] just around the corner, a reauthorized SBIR/STTR program in its robust infancy, and an operational DoD Rapid Innovation Fund program – among other initiatives aimed at small business acceleration – things are very busy in the SBIR/STTR community. In this issue, I'll talk about the SBIR/STTR Policy Directive development process, a fresh House Armed Services Committee report on small business opportunity plus Senate and GAO pursuit of DCAA impact on small business, and the new-look Department of Navy Office of Small Business Programs (OSBP).

SBIR/STTR Reauthorization

Since early January, all of us agency SBIR/STTR leads have been working closely with the SBA on drafting the new SBIR and STTR Policy Directives that will interpret for both government and the public SBIR/STTR reauthorization embedded in P.L. 112-81. Given the complexity and wide-ranging nature of Congressional reauthorization, we've found the process to be challenging.

Your turn – that is, the public's turn to help shape the first new SBIR and STTR Policy Directives (PDs) in a decade, will come around 30 June when drafts of both PDs will be put out for public comment by SBA. Much more is being offered to small business via the legislation, but much more is being asked for by Congress; and remember, the new legislation is just that: law, not suggestions or opinions for debate. Discussion now is focused on implementation. So, some advice, from my recent experi-

ence: (1) where possible, offer additional or substitute language for the SBIR and STTR PDs, on key issues; (2) don't argue the statute itself, but be prepared to defend an alternate interpretation of statute language; and (3) do your homework first – read the statute.

As exciting as the new SBIR/STTR reauthorization is, it will be a work in progress through much of this calendar year. I urge everyone in the SBIR/STTR community to step up to the PD development plate, as these documents will be the basic SBIR/STTR roadmaps for years to come.

House Armed Services Committee and Senate Governmental Affairs Committee

On 19 March 2012, HASC published "Challenges to Doing Business with the Dept. of Defense," a high-level but provocative 115-page report that concludes six months of field hearings by a HASC panel looking into small business barriers to commercialization, and makes recommendations for new legislation, guidelines, memos, directives, etc. in a few



key areas. These include acquisition program and industry incentives to encourage more subcontracting to small business, and SBIR/STTR is often referenced. Looking at what Congress has done in creating the Rapid Innovation Fund and SBIR/STTR reauthorization, and what Deputy SECDEF Ashton Carter has done with his "Better Buying Power," "Small Business Contracting Goals" and related memos, the new HASC report just might be a landmark document that will open wider DoD acquisition doors.

Of greater potential interest, over the past 24 months the impact of DCAA audits on small firms has produced several critical GAO reports and Senate Governmental Affairs Committee hearings. The winds of change are blowing on DCAA audit practices, and I promise you a more detailed *Transitions* article soon.

New-look Department of Navy Office of Small Business Programs (OSBP)

Rear Admiral Sean Crean, who leads Naval small business advocacy, spoke in a 2011 *Transitions* issue about his hopes and goals for this office. Impressed by Navy SBIR/STTR achievements, RADM Crean set out to better align his office with the special needs of small technology firms, and to increase the visibility of the Navy SBIR/STTR Program at Command levels and above. We appreciated his efforts in helping secure a standout 2011 Forum speaker, Undersecretary of the Navy Robert Work, and his subsequent discussions with ASN RDA Sean Stackley, which led to the important 19 July 2011 DoN memo, "Increased Use of Small Business Concerns," and other memos. Following an annual training of OSBP Small Business Professionals in May 2012, we'll welcome RADM Crean back to *Transitions* for an update on his office and its work in supporting small firms.



John Williams
Director, Navy SBIR/STTR Programs

Rapid Innovation Fund Program



With the FY2011 Dept. of Navy (DoN) edition of the Rapid Innovation Fund (RIF) well underway, it's time to take a summary look at participation and other data, and anticipate the FY2012 RIF set to launch in the June to July timeframe this year. Information on the FY12 RIF will be highlighted on www.navysbir.com as June approaches, and on www.acq.osd.mil/chieftechnologist/index.html for links to Army, Air Force, Navy, and Defense Agency RIF. DoN launched FY11 RIF with publication on 22 September 2011 of ONR BAA 11-032, which profiled a unique Congressionally-mandated initiative to accelerate transition/insertion of innovative technologies – with preference for small business technologies - [long dash here instead of two dashes] meeting highest-priority warfighter needs.

DoN received 858 White Papers for DoN's ~\$120M of FY11 funding. 88% of the papers were authored by small firms from 45 states – 64% by SBIR awardees based on their Phase II projects – with an impressive twelve-plus traditionally underrepresented states each hosting from 5 to 15 proposers. The Department of the Navy was the first in the DoD to make RIF awards, with two awards made in March.

The FY2012 Rapid Innovation Fund program, with its \$200M DoD-wide appropriation, is planned for launch in July. It is likely there will once again be four BAAs, as in FY11: OSD plus all three Services. The new DoN BAA will reiterate the purpose of the initiative in an expanded outreach campaign, but may be flavored by Congressional interest in certain technology thrust areas. The format for submission will change but at this time it is likely that there will again be a white paper format followed by more detailed proposals. Support for insertion into existing programs, follow-on funding support after RIF, cost savings/affordability benefits, and value to the warfighter will all still be important evaluation factors. It is anticipated that the BAA will be open for 60 days, so it's not too early to start to talk to the DoN program offices that support the insertion of your technology into their program.

Moving Towards Operational Test and Evaluation (OT&E)

When preparing an SBIR or STTR proposal, the proposer identifies in their statement of work, the test protocols that they will use. However, in order to potentially be utilized by the acquisition community, the research must ultimately be demonstrated (tested) in complex, operational environments. The objective of Operational Test and Evaluation (OT&E) is to verify conformance of low-rate initial production (LRIP) systems (or suitable production-representative test systems) against a program's final capability requirements in a realistic operational environment. An additional hallmark of OT&E is that the testing is conducted by fleet personnel and not by the researchers themselves. The implications for a small business planning for continued maturation of their technology is that they must realize that associated with their work at higher technology readiness levels (TRL), more rigorous testing must be carried out by independent third parties and usually at a cost.



*Cobra Gold fleet exercise.
Official U.S. Marine photo by Pfc. Mark W. Stroud / Released*

Often small businesses are not familiar with the kinds of OT&E that will be required and are unaware of who has responsibility for OT&E testing. So let's take a look. Within the Navy, COMOPTEVFOR serves as the independent and objective agency for operational testing and evaluation of naval aviation, surface warfare, submarine warfare, C4I, cryptologic, and space systems. A quick look at COMOPTEVFOR's website provides an overview of the warfare divisions the organization supports, accompanied by phone numbers for the various organizations.

A dedicated Deputy Program Manager for T&E, appointed by the cognizant program manager, plays a significant role in Operational Test and Evaluation. The Deputy is responsible for defining the scope and managing all aspects of the T&E program. His or her duties include:

1. Develop and maintain the Test and Evaluation Master Plan (TEMP),
2. Manage and coordinate test program funds,
3. Develop T&E requirements for Requests for Proposals (RFP) and Statements of Work (SOW),
4. Define, review, and approve contractor-prepared test plans and reports, and
5. Ensure all contractor tests are government-monitored.

The Test and Evaluation Master Plan (TEMP) describes an acquisition program's planned Test and Evaluation (T&E) activities over a program's life cycle and identifies evaluation criteria for the testers. Although TEMPs are not publicly available, a template for TEMPs can be found in the Appendix of the *Defense Acquisition Guidebook*. In addition, a Gantt chart representing a specific Integrated Program Test Schedule may sometimes be found within a relevant Program Element (PE) of the DoD budget. A key component of the TEMP is the evaluation framework which addresses key system risks, unique Critical Operational Issues (COI) or Critical

Operational Issue Criteria (COIC), as well as Critical Tech Parameters (CTP). A top-level Evaluation Framework matrix acts as an organizing tool and demonstrates the relationship between Key Performance Parameters (KPP), Measure of Effectiveness (MOE), Measures of Suitability (MOS), planned test methods, and key resources. As the performance of your technology becomes more clear and if you secure the interest of individuals within the program office, it is appropriate to ask questions regarding the TEMP, as well as costs associated with test and evaluation.

The transition from DT&E to OT&E does not occur abruptly, but as a continuum. To facilitate transition to OT&E, it is recommended that originators try to secure the early involvement of end users; that they address cost-performance tradeoffs; be prepared to discuss the technical risks; stress the system during testing; and assess and describe the safety of the system. During the execution of your Phase II, you may be invited by a Navy SYSCOM Transition Manager to participate in the Navy's II.5 program. The II.5 program offers the ideal opportunity to become engaged with OT&E, to find out about the specific tests that will be required, and the amount of funding required to conduct the tests. Take the opportunity to ask questions about the TEMP, to learn about the Integrated Program Test Schedule, and any upcoming fleet exercises in which you may be able to participate. In the next and final article in this series, a sampling of specific fleet exercises will be showcased.



Visit COMOPTEVFOR's website:

www.public.navy.mil/cotf/Pages/home.aspx

Defense Acquisition Guidebook:

<https://dag.dau.mil/> page 765

Navy II.5 program:

www.navysbir.com/phaseII5andcpp.htm

Address your Needs with the *Virtual Acquisition Showcase*[®]



PLANNING EARLY HELPS YOU GET THE MOST OUT OF THE FORUM

Before attending the *Navy Opportunity Forum*[®] on June 4-6, 2012 potential attendees can preview these materials in the Virtual Acquisition Showcase[®] (VAS). The VAS is a searchable database containing the quad charts, capabilities brochures, narrative briefings and abstracts for more than 200 Navy projects.

The *Navy's Transition Assistance Program (TAP)* is designed to facilitate the transition of SBIR and STTR funded technologies from Phase II to Phase III. To that end, part of the TAP is focused on creating communication tools that clarify the benefit of these new technologies to the warfighter, the acquisition community, as well as the prime contractors, and first and second tier suppliers that support the Navy. The tools developed include a narrative briefing, a comprehensive quad chart, a succinct, easily understood technology description/abstract, and a company capability brochure.

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This year's Virtual Acquisition Showcase[®] includes 60 main categories and 300 subcategories to help attendees search and easily locate technologies with appropriate capabilities that match the user's needs. Energy and Energy Efficiency is a new category introduced this year with the potential to help the Navy reach its extensive energy efficiency goals and introduce the broader energy community to already available technologies through the participation of the Department of Energy's Office of Energy Efficiency and Renewable Energy (EERE). Twenty-six projects funded by EERE will participate in this year's TAP. With advance due diligence, Forum attendees can spend their time at the event in meaningful discussions, and with presenting firms with the aim of bringing technology solutions more rapidly to the warfighter.

The Briefcase

The benefits of the Virtual Acquisition Showcase don't end once searching is complete; the Briefcase feature allows users to create their own personal "Briefcase." This feature, much like an online shopping cart, provides a secure place for the user to save selected projects of interest. Once the personal briefcase is created with unique login credentials, the contents are accessible from any browser. The briefcases can also be shared with others, thus allowing one person to search for many.

The 2012 VAS went live in early March, providing attendees with more than three months to browse through these projects to find those that fit their needs. The briefcase also provides the user the ease of researching in multiple sessions, saving compatible projects as they are uncovered, storing them for later study, and the ability to easily share search results with colleagues.

Preparing for the *Forum*[®]

The *Navy Opportunity Forum*[®] continues to grow every year. With over 250 Navy, EERE and ORTA projects that will be on display from June 4-6 at the Crystal City Hyatt Regency, the 2012 Forum promises to be another successful event. The VAS provides attendees from all sectors with the advantage of knowing which companies are of potential interest prior to the event, determining which presentations to attend and, where applicable, requesting one-on-one meetings. The prepared attendee will be the successful attendee.



The database can be found at:
www.virtualacquisitionshowcase.com

Industry-led SBIR Consortium: *Aligning Government and Industry Needs through Small Business Acceleration*

Addressing today's national economic and employment crisis with affordable and sustainable growth requires optimal capitalization and alignment of two innovation resources: the government's Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs, and industry and government Research & Development.

Faced with the costly challenge of entering technology-dense new defense markets including energy, cyber security and robotics – areas vital to future warfighting needs – executives from several of the largest defense & aerospace firms held an informal discussion at a prominent SBIR/STTR event in late 2009 to explore the possibilities of such an alignment. Three hours later, they emerged with the beginnings of an innovative plan to collaborate across competitive lines to identify promising new technologies in the SBIR/STTR arena for these new markets. Today, after two years of testing its hypotheses and adjusting its operational design, the Industry-led SBIR Consortium (ISCo) experiment is beginning to produce results.

What is ISCo?

The goal of ISCo is to efficiently identify SBIR-funded small businesses and technologies that have a potential to fulfill gaps in current and future defense procurements, and to help those businesses align their technology development projects with industry investment strategies, leading to a higher success rate for technology transfer.

Following formative discussions in late 2009, ISCo sponsors commenced a 2010 action plan with a series of three pilot efforts. Led by Lockheed Martin and Northrop Grumman with participation from GE, Ingalls Shipbuilding (a division of Huntington Ingalls Industries), ATK, SAIC and Curtiss Wright, and new interest from a small target group of primes in the aerospace, defense and energy industries, these pilot efforts were chosen to test ISCo's viability, cohesiveness and ability to satisfy all participants.

ISCo's value proposition is simple: industry gains a more efficient and cost-effective process with improved access to narrowly-targeted small business technology; small businesses rapidly align with prime contractors' development strategies; and defense acquisition programs can leverage the outcomes.

ISCo employs an intense screening process, designed to produce a high chance of collaborative outcomes.

Through the support of an independent third party working with each stakeholder community, ISCo's sponsoring members are able to collect, sort, and aggregate specific technology domains and subdomains of consensual interest. These technology areas are then prioritized in a rank-ordered list, for system-



Industry-led SBIR Consortium (ISCo)

atic pursuit by the consortium in a carefully planned 11-month sequence of "Technology Discovery Initiative" (TDI) events, for which small businesses are either contacted directly by a prime contractor and invited to join the pool, or are identified by the independent third party for participation. TDI events consist of face-to-face interviews among selected SBIR/STTR firms and ISCo sponsors' subject matter expert teams. These TDI events are designed to supplement, not replace, any existing government-sponsored SBIR/STTR activities.

A final list of candidate projects is then recommended for interviews, where select projects are evaluated by carefully-chosen ISCo sponsors' subject matter experts in a group meeting held at one of the sponsors' local offices in the Washington, DC area.

Following these interviews, sponsors independently report their results, including both technology evaluation and prospective partnering information, which are then aggregated by ISCo's independent third party manager. The aggregate results are then shared with appropriate government SBIR/STTR programs.

Projects that have been reviewed by ISCo are then tracked to capture subsequent partnering results and related investment actions. At any time, any sponsor may independently provide additional dollars to help accelerate a technology being developed for a specific application of interest.

What does it mean to be a candidate?

Not only does participation give a small business the opportunity to get in front of a group of motivated subject matter experts and be potentially written into a technology roadmap or program, it opens the door for future opportunities with other technologies they have to offer. In this way, the prime contractors evaluate the small business not only for the technology of interest to a specific initiative, but also to potentially identify other activities that could represent additional avenues for collaboration.

Regardless of any resulting collaboration, the small business stands to benefit from the experience in that subject matter experts often ask questions that ultimately help to define the way in which their technology needs to progress.

A Promising First Year

In 2011, following the initial invitation and screening process, ISCo sponsors met with more than 30 small businesses with promising technologies. To date, ISCo has held four events – with zero declined invitations, other than scheduling conflicts. Unpublished results of two 2011 ISCo TDI events in emerging areas as diverse as advanced signal processing and autonomous controls suggest that the ISCo partnership model, paired with the Navy *Opportunity Forum*[®] partnership model, can significantly expand the small business commercialization horizon.

The Road Ahead

In 2012, ISCo sponsors are again planning a series of TDI events designed to take advantage of lessons learned, accommodate more sponsors, expand the technology domain areas, better incentivize small firms, and engage with more government agencies - enabling more SBIR/STTR projects to qualify for ISCo candidacy. ISCo members recognize SBIR/STTR as a source of innovation to enhance current programs and products, as well as providing a competitive edge to win future projects with the potential to serve the highest-priority acquisition needs.

DOE Projects Energize the Navy *Opportunity Forum*[®]

This year's Navy *Opportunity Forum*[®] might seem a bit more efficient – energy efficient, that is. An Energy Showcase, providing attendees with early access to technologies funded by the Department of Energy, has been added to this year's *Forum*[®]. In total, 27 projects will be featured through this collaboration between the U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy (EERE) and the Department of the Navy. This is a timely addition to the *Forum*[®] given the emphasis that both Department of Energy Secretary Dr. Steven Chu and Navy Secretary Ray Mabus have placed on alternative fuel infrastructure development and energy efficiency. The Navy's energy strategy is focused on the following key principles: energy security, energy efficiency and sustainability while remaining the pre-eminent maritime power.

While much of the *Forum*[®] will appear the same as in years past, a track dedicated to presentations on energy topics will be added to each day. Some of these projects are geared towards both defense and commercial applications, while others are solely focused on commercial market applications. The presentations sponsored by EERE will highlight business opportunities for partnership, licensing, and potential investment. All Energy Showcase participants will have a booth in the Exhibit area and are available for One-on-One meetings. The addition of the Energy Showcase is intended to help foster collaboration between government agencies and industry to help achieve energy efficiency and security goals.

Just as participants in the Navy Transition Assistance Program (TAP) have worked with Dawnbreaker staff in preparation for the *Forum*[®], DOE program participants have been engaged in similar activities. While the focus of their materials and presentation may be different, the EERE sponsored companies have worked with Dawnbreaker to create a quad chart, a succinct, easily understood technology description/abstract, and other tools. These efforts reflect the willingness on the part of the Navy, the Department of Energy, and industry to evolve and meet new energy and technology needs for both the military and commercial sectors.

This pilot program between the Navy and DOE underscores the importance of energy and energy security as a strategic resource and a key component of the Navy's mission. Furthermore, the Energy Showcase provides an excellent opportunity for manufacturers, potential inves-

tors, and end users to preview these exciting new technologies. Energy related technologies include biofuels, next generation lighting, renewable energy, thermal barrier coatings, hydrogen production, and many others.



Daniel Poneman, Deputy United States Secretary of Energy will be speaking at this year's Opportunity Forum[®]



To learn more about these projects
visit the **Virtual Acquisition Showcase[®]**
(VAS) and sort by EERE:

www.virtualacquisitionshowcase.com/?sort=6

It Takes a Village!

If it takes a village to raise a child, it takes a community to transition a technology. Certainly, a prerequisite for transition success is that the originator must have great technology that meets a high priority warfighter need. If the innovator is a small business concern (SBC) its involvement must also pose minimal risks to the acquisition process. The SBC must be able to reliably deliver product on time, on budget, and be able to weather the protracted procurement process. But, successful transition requires much more than a capable small business, it indeed requires a community.

The community is comprised of gatekeepers, champions, and sponsors – all which play a vital role in transitioning technology. Gatekeepers have information that can be invaluable to the innovator. Champions advocate on behalf of the innovator within the customer community, while sponsors, pay the bill. Without the active engagement of this community, good technologies responsive to warfighter needs will not transition.

People's Choice Awards

In recognition of the important roles played by others in the community, the SBCs presenting at this year's Navy *Opportunity Forum*[®] have been asked to identify those within the prime and Navy communities that have been most helpful to them in transitioning their technologies. People's Choice Awards will be presented to the Lead System Integrator (LSI) that receives the most votes from the small business participants, in recognition of its active contribution to transitioning technology. In addition, the SBCs will nominate individuals within their sponsoring organization that have been most helpful to them. Multiple individuals from within the Navy will be recognized for their active support of transition. SBCs may nominate anyone that they wish, but must provide a detailed explanation of how the individual assisted them. PEOs, PMAs, TPOCs, PMs, and others within the Navy will be recognized by the small business community for their active support of technology transition. The People's Choice Awards will be presented at the Navy *Opportunity Forum*[®] on Wednesday, June 6th from 1:00 – 1:45.

2012 NAVY OPPORTUNITY FORUM

ENERGY SHOWCASE

SBIR

June 4-6, 2012 | Hyatt Regency, Crystal City, VA | www.navyopportunityforum.com
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