



TRANSITIONS

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From the Director

As this issue of *Transitions* goes to press, we are closing on a national election that will impact Congress in ways we can't predict at present, and there is uncertainty about the future direction for the SBIR/STTR Programs and Department of Defense. Let's put this uncertainty in context, and then talk a bit about Navy SBIR/STTR plans for 2011 with our continually improving Commercialization Pilot Program (CPP) and our emerging Phase II.5 funding strategy for SBIR/STTR transition and commercialization.

First, the SBIR/STTR community of small businesses achieved an impressive level of advocacy during 2010 that came close to making SBIR/STTR "a household word" on both sides of the Congressional isles, in both houses. Building on heightened SBIR/STTR advocacy in recent years, small firms across the nation have told the SBIR/STTR story of delivering innovative solutions to meet critical defense needs – and you've told this story at regional, state and national levels. Be prepared to tell this story yet again to a new Congress – and as new legislators ask about SBIR/STTR job creation potential, remember to note the local jobs benefits that accrue as your business dollars circulate in your local economies.

Second, your message has been heard that the key to meeting national security needs is to adequately support SBIR/STTR technology maturation. Proof lies in the Rapid Innovation Program that Congressional members proposed in HR 5136 to provide dedicated Phase III funding for high priority DoD SBIR Phase II projects. Further proof lies in recent Memoranda of Understanding's (MOU) the Small Business Administration has enacted with federal agencies including one signed with Secretary of the Navy, Ray Mabus on October 13, 2010 aimed at using small business and the SBIR/STTR resource to reduce

energy consumption from fossil fuels, and increase the use of clean technologies and sustainable energy sources. If these SBIR/STTR expansion initiatives achieve fruition in 2011, we will be looking at a much stronger SBIR/STTR program.

Third, as China and others ascend in emerging global markets with an accelerated focus on advancing their innovative capabilities, there is a growing national consensus on the need to reassert US capabilities in innovative science and engineering solutions – a message we see in new powers such as Brazil, where I recently participated in a conference on innovative policy and program development. The White House has stepped forward with its Innovation and Entrepreneurship Working Group, a multi-faceted effort to improve and expand innovation across the nation, part of which focuses on the SBIR and STTR programs.

Fourth, technology giants including many DoD Prime Integrators are showing signs of heightened SBIR/STTR interest, as their perception of a decreased DoD acquisition funding grow. We are beginning to see more systematic pursuit of SBIR/SBBIR partnering, including internal management constructs to channel SBIR/STTR candidates to fill gap technology needs directly into industry product development. It's still much too early to predict results, measured by additional Phase III contract dollars from industry and integration of SBIR/STTR technologies into fielded systems – but this industry trend is encouraging, and aligns well with our CPP effort and our emerging Phase II.5 funding strategy.

While 2010 may not be the year that the SBIR program is reauthorized, Congress did issue a ninth continuing resolution that will keep the program going through

Metric	FY08	FY09	FY10
Total Funding per FY	\$274M	\$329M	\$342M
Navy SBIR Topics issued that FY	219	224	233
Navy Phase I Awards from FY Solicitations	555	597	273*
Navy Phase II Awards during FY	272	240	229*
Navy Phase III Awards during FY	90	126	TBD
Amount of Navy Phase III Awards that FY	\$307M	\$362M	TBD

* Awards are still being made, data as of October 2010

CPP and Phase II.5 are not the same thing

- » CPP is the 1% of SBIR Program funds a Service is allowed to use on “accelerating” activities with:
 - In-house Navy staff to provide additional support
 - Support contracts that help the SBIR and STTR firms
- » No CPP funding goes to SBIR or STTR Firms
- » Phase II.5 is SBIR or STTR Program funds, above normal Phase II amounts, that is provided to the SBIR and STTR firms

Phase II.5's require additional levels of support, due diligence, agreements and non-SBIR/STTR funding commitments



For more information on the Navy's CPP program, including the list of eligibility requirements, information on the new TRIMS software tool and the CPP SYSCOM POCs, visit www.navysbir.com/cpp.htm

January 2011. The Navy SBIR program has continued focus on its mission, by emphasizing those key elements that have made the program so strong and effective. Some of these elements are discussed briefly in this piece, including the Navy Transition Assistance Program [TAP], program metrics from the past two and a half years, information on the Commercialization Pilot Program [CPP] and Phase II.5, as well as the SBIR/STTR selectee search function. We have also provided a list of Points of Contact [POCs] for the Navy SBIR SYSCOM Program Managers because of their critical importance to the Program's success. The Navy SBIR program is a team effort and these men and women are dedicated to moving the right advanced technologies forward to the Fleet, through their particular SYSCOM.

Another Successful Navy Opportunity Forum®

The Navy SBIR program's premier event, now in its tenth year, was held June 7 – 9 (see pages 6-7 for a Recap of the event) and then a few weeks later, hosted the Kick-off meeting for the 2010 – 2011 Navy Transition Assistance Program (TAP), participants of which will have the opportunity to present their technology at the 2011 Forum, June 6–8 at the Hyatt in Crystal City—Mark Your Calendars. As we continue to innovate, there were changes to this year's Forum and there were/are changes to the current TAP, which keeps the program fluid and responsive to the needs of the participating firms, the Prime Contractors/Suppliers, government acquisition officers and SYSCOMS.

The Primes have already been quite responsive to innovations made to the TAP program over the past year. We developed a new web site this year for Primes, which allowed them to stay informed, set up meetings, and prepare all of their company representatives for meeting with the right small firms at the Forum. Also, Virtual Acquisition Showcase® usage by participants has more than doubled over the past two years from 30% average usage to average usage of nearly 75%, which means that attendees are planning ahead and using the site to decide which technologies they wish to view at the Forum.

Other program areas, in addition to the TAP, that are key to helping the Navy assist and accelerate to Phase III are:

- » 1% CPP funds to provide assistance to SBIR/STTR firms
- » Phase II.5 Program
- » PEO Involvement
- » Strong SYSCOM SBIR Offices
- » TRIMS Software

Thanks to all of you for your efforts on behalf of the Navy and this program.

John Williams
Director
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NAVY SBIR POCs



For full contact info and additional POCs, visit navysbir.com/pm-poc-htm

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NAVSEA Names Dean Putnam as SBIR Program Manager and Celebrates a Phase III Success



It was announced recently that Dean Putnam has been officially named as NAVSEA SBIR PM. Putnam, who has served as the acting PM since 2007, has nearly 30 years of experience in Navy S&T and RDT&E, and is well-versed in providing strategic vision to advance, transition and implement new technologies. In his role as the NAVSEA SBIR PM, Putnam represents NAVSEA SBIR to OSD, Navy, Tri-Service, NAVSEA, PEOs and the public.

During his tenure at NAVSEA SBIR, Putnam has made several strides to standardize processes and streamline/improve administrative efficiency, support metrics assessment and capture best practices, all to ensure that the \$65 to \$90 million NAVSEA SBIR budget is efficiently managed to execute the NAVSEA SBIR program directives.

He has established an SBIR Business Plan and developed investment strategies that are responsive to the objectives and requirements of the Chief of Naval Research, U.S. Congress, the Secretary of the Navy, Office of the Secretary of Defense, Chief of Naval Operations. The business plan was approved by the NAVSEA Chief Technology Officer (SEA05B) and endorsed by COMNAVSEA.

Also established since Putnam stepped in as (Acting) NAVSEA SBIR PM, is the NAVSEA SBIR Board of Directors, which was a recommendation of the SBIR Business Plan. The group has held initial meetings and

has executed Board of Director actions. A NAVSEA SBIR Working Group was also established to support SBIR execution and to facilitate Directorate and PEO participation.

Phase III successes are an important focus for the NAVSEA SBIR program. Under the guidance of Putnam, and through the diligent work of his team, the NAVSEA SBIR program has several Phase III successes coming down the pike. One that has come to fruition in recent months is with 3 Phoenix, Inc. (3Pi). The periscope detection radar technology will transition through PEO-IWS-2 and will be installed on all U.S. Navy Aircraft Carriers. 3Pi is being awarded a \$14.6 cost-plus-fixed-fee contract to produce radar data processors for the AN/SPS-74V(2) periscope detection radar for use on Navy aircraft carriers.

Founded in 2003, 3Pi is focused on developing innovative technologies, primarily through Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) opportunities. The company's core competencies include, Real Time System Architecture and Design; Passive and Active Sonar Signal Processing; Telecommunications and Embedded Design; Open Architecture Computing Environment Practices; Program Management and Financial Management.

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PEO(A) Roadmapping



Transitioning science and technology (S&T) efforts, (including SBIR projects) into an acquisition program of record (PoR) or platform is a challenging, often high-risk endeavor, for which there is no simple fix. The Program Executive Office for Air ASW, Assault & Special Missions (PEO(A))/Naval Air Systems Command (NAVAIR) has efforts underway that are meant to mitigate risk, better align needs and improve the likelihood of transition.

Three common transition challenges faced by SBIR firms and the potential causes that PEO(A) are addressing, include:

1. A perceived lack of attention

Transitioning a technology into a POR happens either directly through the relevant program office or through the Prime responsible for the platform. Within NAVAIR, PMAs (Program Managers, Air) can be viewed as project managers who are charged with ensuring that the acquisition of their platform is procured on schedule and on budget. Their concern is with deadlines, tested technologies and mitigating risk. A new S&T project could introduce risk/scope creep into an acquisition schedule, disincentivizing the PMA's consideration of it.

2. The topic no longer has a "home"

Though topics, which are generated to address expressed need or current S&T interests, can be generated from anyone within NAVAIR or a specific PEO, often the PMA is responsible for either generating or endorsing topics. However, PMAs tend to stay in a role

for only two to four years, meaning that a topic they create may receive funding, but then the PMA leaves. The new PMA may have different priorities, requirements or budgets to contend with.

3. Other Services issued similar topic to a prior Navy topic

While multiple topic awards can encourage competition and allows for a selection solutions, however, it could represent duplication of efforts or a lack of awareness across S&T groups. While somewhat common, these issues represent challenges between the S&T and acquisition communities.

STOs and NAVAIR S&T

The NAVAIR S&T community focuses on developing and improving capabilities aligned to warfighting mission area needs/gaps. Gaps are identified by representatives from the fleet (warfighter), Requirements and Resource Communities, Office of Naval Research, NAVAIR, PEO(A) Carriers and the Naval Air Warfare Centers. Within each of the gaps are individual goals called Science and Technology Objectives (STO), which are contained in the Naval Aviation Enterprise (NAE) STO document. The NAE STO is used across the services as a baseline for identifying, prioritizing, aligning, and synchronizing S&T efforts. The STOs provide goals for the NAE and facilitate alignment of the Navy's applicable S&T development investments to the capability requirements for Naval aviation, keeping the S&T community focused on maturing technologies to appropriate levels for transition – typically a Technology Readiness Level (TRL) of 6.

Introducing new technology to the acquisition community creates risk, be it to cost or schedule, to a group that is focused on executing to existing cost, schedule and performance parameters for their respective programs. Thus, the PM must weigh the technology benefits against the potential impacts to the cost/schedule goals. The later the acquisition process, the greater the risks become. Introducing a technology post Critical Design Review (CDR) is seen as high risk, and is usually held for future upgrade/modification effort. It may also be that the program office may not be aware of the technology, which is why there has been no expressed interest. It is also possible that there were multiple approaches being developed to address the need and an alternate approach was selected.

PEO(A) Begins to Bridge the Gap

In PEO(A) Todd Parcell, the Assistant Program Executive Office (A) for S&T has been examining some of the main challenges discussed above. Through his research and a considerable amount of experience in the acquisition arena, Parcell thinks that roadmaps, which help identify and link the technology development efforts to specific acquisition program requirements, are a potential solution in bridging the gap (the Valley of Death) between the S&T and Acquisition communities. Prior to coming to PEO(A), Parcell served as Deputy Program Manager for H-3 and H-2 Helicopters, Airframe and Power and Propulsion IPT Lead for VH-71 Presidential Helicopter, the Chief Engineer for VH-3D/VH-60N Presidential Helicopters, and the Chief Engineer for H-3 Helicopter, and a Fleet Support Team Engineer. He has also served as the Rotary Wing Portfolio Manager for NAE Chief Technology Office, APEO(A) for Science and Technology.

By leveraging different roadmaps and guidelines in his efforts, Parcell has envisioned, and is currently developing, various roadmaps that will provide the linkage from the early stages of S&T up to the program capability needs. At this time, there are four classes/levels of roadmaps.

1. *Core Capabilities* – Defines technologies considered core to the NAWC laboratory research and engineering workforce and facilities and maps/identifies current workload/projects and future work requirements.

2. *S&T Objectives* – Defines critical capability gaps for S&T objectives, decomposes capabilities needs into technology investment areas, identifies/maps current workload/projects, and identifies where future work may be required.

3. *Acquisition* – defines capability needs specific to each platform and maps/aligns with Program Objective Memorandum (budget) cycles

4. *Platform S&T* – identifies where S&T can contribute to the needs identified on the acquisition roadmap, identifies/maps current workload/projects to those needs.

Roadmapping Efforts to Overcome Challenges

The NAE STO document, referenced above, identifies objectives based on S&T gaps across 11 different key capability areas. It is used to define the Naval Aviation Strategic Investment Plan, which summarizes proposed S&T investments and current S&T projects for each STO. Acquisition

Roadmaps, which identify specific capability needs that are aligned to the POM process, are critical in Parcell's efforts to reduce the challenge of transitioning technology.

To further distill the NAE STOs into more specific technology areas and highlight the existing S&T investments, if any, made in each area Parcell has worked to create a standard taxonomy. He is investigating merging the NAE STO and specific technology areas with relevant Acquisition Roadmaps to enable a linkage between S&T investments and needed acquisition capabilities. This "S&T Acquisition Roadmap" paints a picture of the capability that a specific technology would enable and could target the acquisition program that could utilize the capability.

Roadmapping in this way ensures that the S&T developments are in line with actual acquisition needs. Current S&T groups may be working on various projects, but little is done to ensure that the Integrated Product Team leaders understand on-going and planned S&T efforts. Roadmapping would help to move S&T efforts forward to IPT leaders, and could highlight how S&T is aligned with enabling necessary capabilities. By doing this, the incorporation of an SBIR technology/S&T project into an acquisition program can be planned for, which also helps to mitigate schedule and maturation risks for a PMA. Roadmap efforts would also enable decision makers to see where S&T investments are being made, where the gaps are, and make investment decisions that leverage existing S&T efforts across the services – which would help to mitigate multiple topics that are similar in nature from being generated either across agencies or repeatedly year after year.

For SBIR projects, roadmaps will ensure that the development efforts of the projects stay on the front burner of the PEO and PMAs. Even as PMAs rotate in and out of positions, they will have a guiding document referencing existing S&T efforts that are aligned to acquisition capabilities, S&T gaps that could be addressed by future topic generation, and an ability to plan for the utilization of the SBIR technologies. Roadmapping could shed light on times when it may seem difficult to make a clear linkage between the topic need and an actual capability requirement from an acquisition program.

To date, Parcell has demonstrated roadmap utility with PMA 264 - AIR ASM Systems, PMA 290 - Maritime Patrol and Reconnaissance Aircraft, and PMA 299 - H-60 Helicopter program. Receiving funding in 2010 to help support his efforts and roll out his methodologies to additional areas of NAVAIR, his efforts have been mainly focused on acquisition programs under PEO(A), but they may roll out to additional groups. Although many of his efforts are proprietary to DoD, Parcell has sought input on taxonomy from key OEMs, with an eye on including industry at a later date.



NAE STO Document can be found online at:

www.marylandtedco.org/_media/pdf/STO.pdf

More information and future STO document releases can be found at:

www.navair.navy.mil

Navy SBIR/STTR: Always Innovating New Ways to Transition Technology To the Fleet

The 2010 Navy *Opportunity Forum*® Recap



The Navy *Opportunity Forum*® celebrated its tenth anniversary this year with over 1400 participants in attendance. The Forum is the flagship event of the Navy Transition Assistance Program (TAP); an eleven month program focused on helping SBIR funded High-Tech firms to advance their Navy sponsored technologies.

The TAP prepares the SBIR funded firms to present their technologies in a concise and meaningful way to the acquisition community. This year the forum showcased 205 technologies from 177 different presenting firms to an audience of government acquisition officers, representatives from Congress, prime contractors, first and second tier suppliers and investors. Each presenting company has the opportunity to display their capabilities in the expansive exhibit area and each firm creates and delivers a fifteen minute presentation to potential partners in attendance. Many of these presentations had record breaking attendance.

In addition to the presentations and exhibit areas, audience members are able to interact with presenting firms in the more intimate setting of the Strategic Introduction (SI) meeting area. SI meetings are more in-depth than a casual meeting at an exhibitor's booth... These 30 minute meetings allow for a more detailed discussion between the small firm and the potential partner. There were over 600 of these meetings scheduled to take place during the three day event.

"[The SI meetings] allowed me to ask specific questions, establish a relationship with Small business and set up future meetings /actions."

– Forum Attendee

In addition to the SI meetings, nearly 40 High Potential Interaction (HPI) meetings also took place at the event. HPI meetings are longer, more in-depth meetings between a presenting firm and a prime contractor. HPI meetings are scheduled if three or more representatives from a Prime Contractor have expressed interest in meeting with one small firm. Previously, HPI meetings were scheduled only if there was a perceived near term fit.

"The TAP for Primes website was a great tool to see who and what was going to be available as well as set up the meetings."

– Prime Contractor / Forum Attendee

With over 600 meetings taking place over a three-day period, there is a tremendous risk of missed connections and confusion. To prevent scheduling conflicts, all meetings are scheduled using a custom-designed online scheduling tool that takes into account the entire forum schedule of all participants involved in these meetings. This tool successfully obviates double-booked meetings, and even takes the distance from area to area into account, so there are no late arrivals or missed opportunities.

Each year, attendees of the NAVY *Opportunity Forum*® are polled or interviewed with the goal of improving the event each and every year. The Navy *Opportunity Forum*® is committed to providing the most useful venue for SBIR/STTR funded firms and potential investors to come together with the common goal of technology transition. As a result of this input, one of the changes this year came prior to the event in an effort to make the experience streamlined and easy to use for busy Prime Contractors. The Navy TAP for Primes site was created to

“We really believe that small business plays an important role in bringing innovation quickly and nimbly to forward, therefore meeting the needs of the acquisition office.”

– Jim Thomsen, Principal Civilian Deputy Assistant Secretary of the Navy (RD&A)

facilitate the review of the technologies to be presented at the Navy Opportunity Forum. The site increased the level of engagement from the Primes. The Virtual Acquisition Showcase® (VAS) www.virtualacquisitionshowcase.com has always been useful and well-received, but upgrades were implemented to make searching for technology applications of interest more streamlined.

Not only did the 2010 Forum have a dynamic exhibit hall full of advanced technology and meeting rooms buzzing with potential partnership discussions, but there was also a slate of numerous expert keynotes and panelists. Each speaker/panelist was able to speak to their perspective of the SBIR program and provide some insight forum participants on how best to work with the numerous players across the Government/SBIR/Acquisition spectrum.

Day One

Rear Admiral Nevin P. Carr, Jr., Chief of Naval Research, Director of Test and Evaluation and Technology Requirements was the introductory Keynote on the first day of the event. RAMD Carr was followed by the Director of Rapid Fielding in the office of the Director of Defense Research and Engineering, Earl C. Wyatt, who was the luncheon Keynote. Monday’s slate of speakers was rounded out by the Chief Technology Officers Panel, which was moderated by Dr. Joseph P. Lawrence, the Director of Transition for the Office of Naval Research. Panelists were Dr. Roger Boss, Deputy SPAWAR Chief Technology Officer; Dr. James Sheehy, Chief Technology Officer, NAVAIR; James Smerchansky, Deputy Commander, Systems Engineering Interoperability, Architectures and Technology (SIAT), Marine Corps Systems Command; and Captain Heidemarie Stefanyshyn-Piper, Naval Systems Engineering Technology, NAVSEA.

Day Two

James Thomsen, Principal Civilian Deputy Assistant Secretary (RD&A) was the first keynote of day two. He was followed by, Rep. Ike Skelton (D-MO), Chairman of the House Armed Services Committee and the former Chairman of the Small Business Subcommittee on Procurement, Tourism and Rural Development. Tuesday’s panel offered a rare look into the Congressional and Executive Branch’s views on the SBIR program. The panel featured Ms. Kevin Wheeler, the Deputy Democratic Staff Director for Senator Mary I. Landrieu, Chair of the Senate Committee on Small Business and Entrepreneurship; Dr. Arun Seraphin, the Assistant Director for Defense Programs at the White House Office of Science and Technology and a former Staff Member of the Senate Armed Services Committee; and Mr. Tim McClees, Professional Staff Member, House Armed Services Committee.

Day Three

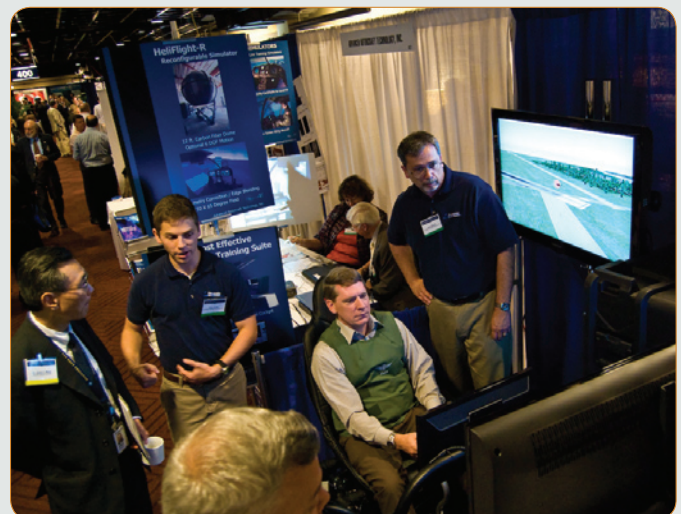
The day began with Karen G. Mills, Administrator, U.S. Small Business Administration. A Forum favorite and Data Rights expert, David Metzger, a partner with Arnold and Porter LLP, followed Administrator Mills. The final event for the 2010 Forum was the Town Hall Meeting, hosted and moderated by John Williams, Director of the Navy SBIR/STTR and T2 programs.

The time and efforts made by the speakers and panelists to be an integral part of the Forum was certainly appreciated. It is also notable that even with the recession-driven budget constraints, the Forum still had a robust attendance, and even saw an increase in attendance from government representatives.

Once the event was closed, work began in earnest on the new iteration of the TAP with the 2010/2011 TAP Kick-Off being held just a few weeks later.

“The net new jobs in this country are actually created by a smaller number of high tech companies, like those represented here [at the Forum]. If you look around this room, you are going to see the companies that create tomorrow’s jobs, tomorrow’s exports and the companies that keep us competitive around the world. That’s why programs like SBIR are important, not only to the Navy, but to the whole economy.”

--Karen Mills, Administrator,
U.S. Small Business Administration



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Download this newsletter at www.navysbir.com

SBIR CALENDAR OF EVENTS

Nov 16–17, 2010 • Small Business Aviation Technology Conference

The conference will address the interrelationships between Fleet Users, Technology Development and the Acquisition Community. Small Businesses will have an opportunity to interact with representatives from NAVAIR Program Offices, the Science and Technology (S&T) communities, and to discuss the Small Business Innovation Research (SBIR) 11.1 Solicitation. www.sbatc.com

Apr 11–13, 2011 • National SBIR Spring 2011 Conference Madison, WI

Program Managers and representatives from participating agencies will provide insight into how to work with their respective agencies and answer your own special questions during the one-on-one networking opportunities. Contact Pat Dillon via email: info@wisconsinsbir.org or by phone: (608) 263-0398.

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