TRANSITIONS

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PARTNERSHIPS COME IN ALL SHAPES AND SIZES

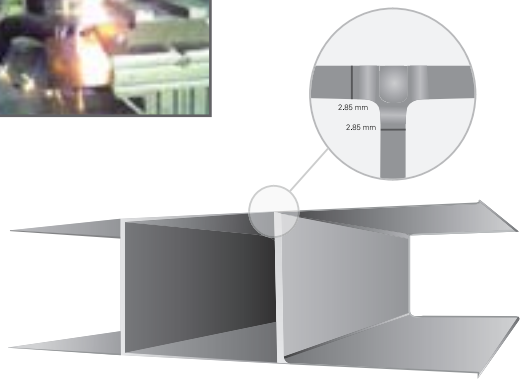
The Navy's dedication to partnerships is robust and growing. Starting in the early 90's with then ASN(RDA), Jerry Cann, the Navy's SBIR program was the first to establish true partnerships between the Small Business Innovation Research (SBIR) program and the Acquisition Program offices. The ASN(RDA) required not only that Acquisition Offices be involved with the SBIR program, but that Phase II Transition Plans be required to facilitate transition. Today's Navy believes that successful transition of SBIR-funded technology can be further advanced by the involvement of a broader range of entities. Collaborations involving small businesses, large primes, sub-tier manufacturers, Acquisition Program offices, Navy labs and others, results in more rapid transition of technology to the fleet.

This issue of **Transitions** is dedicated to the theme of "partnerships" broadly defined as a coming together of different entities for mutual gain. The partnership could take a legal form and imply co-ownership, or it could be more loosely defined as working together, collaboratively on a project. Given the complexity of advanced technology and today's business environment, commercial success will increasingly require such partnerships.

Collaborations come in various forms and include partnerships between large and small companies as highlighted in the story about Lockheed-Martin; between small businesses that serendipitously find one another (success stories) or which are brought together by a larger organization that sees the synergies that exist amongst the capabilities of different firms (SPAWAR story). Some are brought together through Industry Associations acting in collaboration with their customers (ONR/NSRP story). Successful collaboration, ultimately facilitates the maturation of a technology, enabling it to evolve and take the form required for system integration.

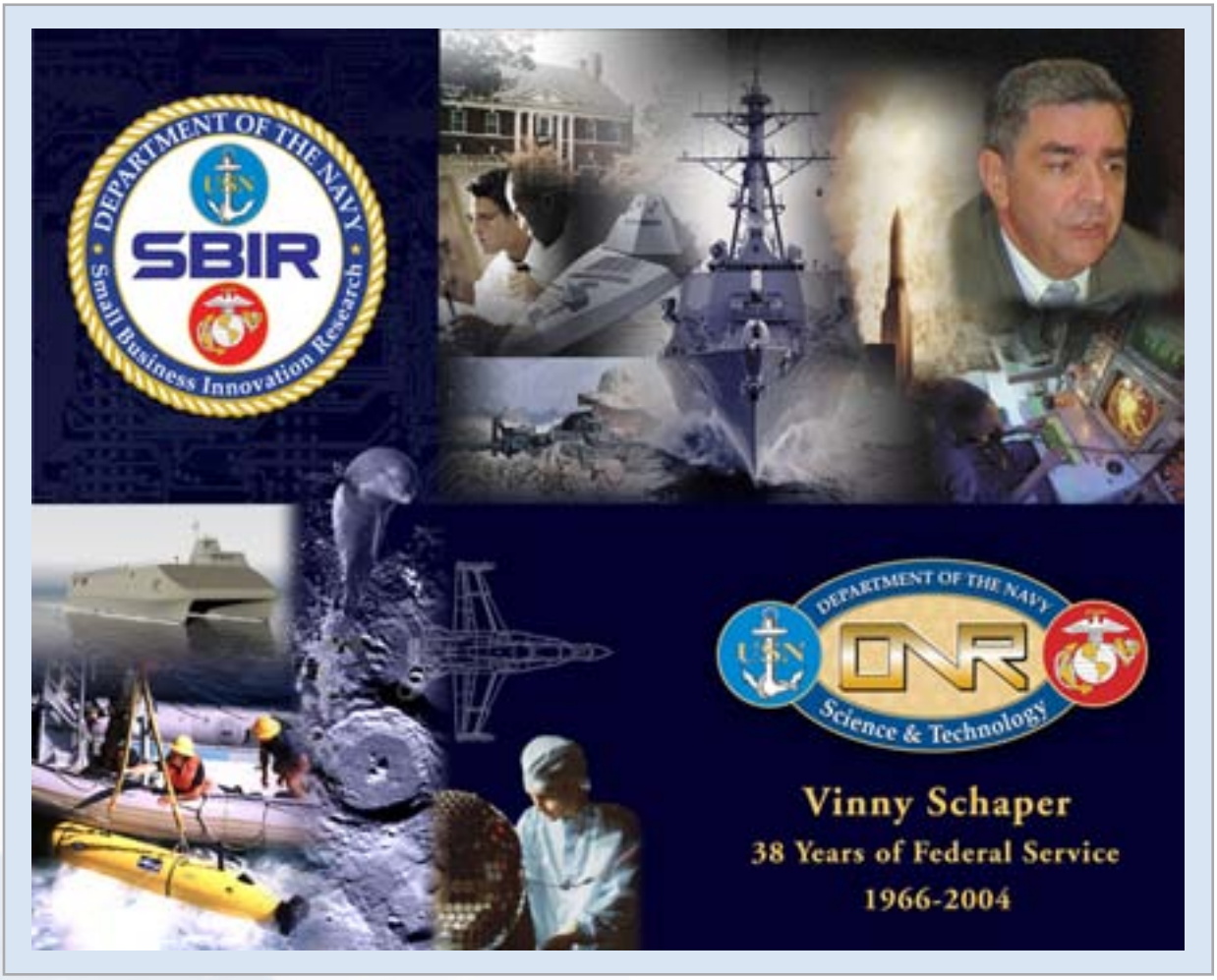
FLEXIBLE LASER OPTIC FOR WELDING-FLOW

Visotek's FLOW system laser welds sandwich panels for shipyard construction.



Visotek worked closely with Bender Shipbuilding & Repair and ONR to deliver successful solutions for laser welding. *(See page 7)*

Like all new endeavors, successful collaboration requires both practice and forethought. Relationships need to be mutually beneficial and open while still protecting the unique interests of each collaborating party. It is our hope that the information presented in this issue will provide ideas to all who participate in the Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs regarding how to collaborate and facilitate transition to Phase III.



FEATURE STORY

VINNY SCHAPER

RETIRES AFTER 16 YEARS OF SERVICE AS NAVY SBIR PROGRAM MANAGER

They came from all over: colleagues from within the Navy and across the DoD, representatives from small businesses who had known and been positively impacted by Vinny. All came to wish him well as he embarked on his new venture. After more than 38 years of government service, Vincent Shaper retired as the Navy SBIR Program Manager, a position held for 16 years. Under Vinny's leadership the Navy SBIR Program always strived for improvement and led the other agencies in the acceptance of e-commerce and the internet - now the standard across DoD.

Admiral Cohen spoke first, commending Vinny for his service to the SBIR program. Then, one after another countless friends came forward to wish him well, tell anecdotes about shared experiences, and provide mementos. If there was any doubt, the Hawaiian theme reminded everyone that Vinny and his wife would spend a lot of time at a treasured location on the Big Island. A"How to be a consultant" book pointed to possible new directions. As Linda Whittington, the SPAWAR SBIR Program Manager, presented the last gifts from an appreciative crowd, she reminded everyone of the importance of keeping in touch.

Vinny, all of your friends and colleagues wish you well with your new endeavors!

JOHN WILLIAMS APPOINTED ACTING NAVY SBIR PROGRAM MANAGER

John Williams has been promoted to the position of Acting Navy SBIR Program Manager. John will assume responsibility for managing an annual budget of nearly $300M for the combined Navy SBIR and STTR programs. The Navy's SBIR strategy has been to reach broadly across various communities to generate more than 220 SBIR topics promoted in the three DoD solicitations. System Commands, Warfare Centers, PEO's and Naval Laboratories are all potential sources of topics to address Navy needs. In addition, acquisition programs are encouraged to work with Navy prime contractors to develop topics beneficial to Navy's end products.

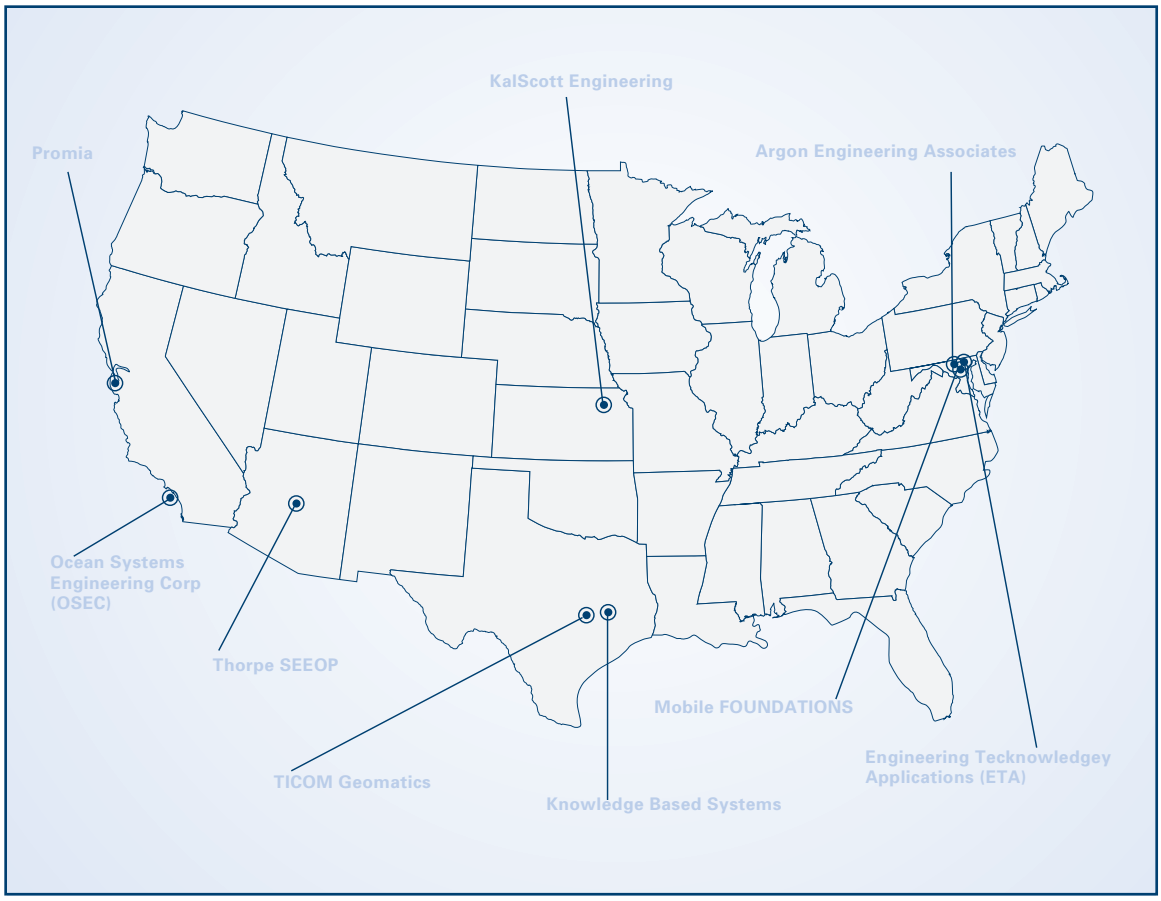
John's focus as Deputy had been to increase the transition of SBIR awards to Phase III and to increase the involvement of prime contractors. John initiated the Transition Assistance Program which has become a major element of the Navy's effort to better train both the small businesses, major contractors, and acquisition managers on how they can work in partnership to achieve the common goal of transitioning SBIR-funded technology to the Fleet! As Acting SBIR Program Manager John will continue his focus on the Transition Assistance Program and the Primes Initiative.

BREAKING A LARGE SYSTEM
INTO SMALL PIECES

Can large systems be broken into smaller pieces and given to small businesses to develop innovative solutions? SPAWAR/PEO C4I&Space is currently taking this unique approach to respond to anti-terrorism technical requirements. For this in-process experiment, the required pieces were parsed out and awarded to nine small businesses to develop solutions. Once the technologies prove successful, the individual solutions will be integrated and tests and demonstrations conducted to evaluate overall system performance.

This unique approach was a requirement for PEO C4I&Space/PMW-180 (ISR&IO), responsible for Navy tactical cryptologic systems. This requirement was solicited by ONR based on a request from the Honorable John Young ASN(RDA) as part one of a four part topic (Navy SBIR Topic N02-107/1) entitled "Anti-Terrorism - Detection, Indications, and Warnings". ONR also recruited Stephen Brown of PMW-180 to be the Program Manager. The solution requires the development and demonstration of a set of key technologies that together provide needed new transformational warfighting capabilities. A key aspect of this technology is significantly improved detection and I&W capability resulting from collaborative use of distributed heterogeneous sensors and improved back-end processing techniques.

According to Linda Whittington, SPAWAR SBIR Program Manager, the goal of teaming was to conduct a real world demonstration of seamless multi-INT sensors and processing capabilities, coordinated via a common C3 architecture that would provide timely I&W, combat ID, and targeting quality data. The solution will integrate the



To accomplish the effort, the following nine companies are working as a team to find a solution to a complex problem:

ARGON ENGINEERING ASSOCIATES
Sensor VHF receivers of UAVs

ENGINEERING TECKNOWLEDGEY APPLICATIONS
Sensor RF Tuners for Argon's VHF sensor receivers

KALSCOTT ENGINEERING Two small UAVs

KNOWLEDGE BASED SYSTEMS Software for Adaptive Toolkit for the Discovery of Threats (ATDT) as input for sensor mission management

MOBILEFOUNDATIONS Software for system status and health of sensor payloads

PROMIA Sensing, Warning, and Response Manager (SWARM) software to monitor sensor network communications

OCEAN SYSTEMS ENGINEERING CORP
Learning Machine algorithms for post processing of sensor data

TICOM GEOMATICS Controller for Heterogeneous Sensor Systems (CHESS) software to control sensor tasking and collection on UAVs

THORPE SEEOP One TS-2000 UAV to carry sensor payloads

use of both national and tactical assets, fully-networked sensors, and advanced human-computer interaction, including remote operations for manpower reduction.

What are the benefits derived from unbundling large systems in this manner? Stephen Brown, Program Manager for this effort, believes that the benefits are huge. For one thing, it fosters increased participation by small businesses. Additionally, the partitioning of large systems reduces overall costs by enabling easier technology refresh of already fielded systems and availability of the developed technology to additional customers.

How can the various firms work together in this team work approach and still protect their IP? Ms. Whittington is quick to point out that Non-Disclosure Agreements among the team members has worked very effectively to keep all companies focused on their technology developments without concern.

A model Mutual Non-Disclosure Agreement can be found on the Navy TAP website (http://www.dawnbreaker.com/navytap/

Linda Whittington is the SBIR Program Manager for SPAWAR/ PEO C4I&Space. Her initial affiliation with the SBIR Program started in 1985 at the Naval Supply Systems Command. Linda claims she "grew up" working for the Navy beginning her career at the Naval Intelligence Command. However, her most rewarding and challenging job has been her involvement with the SBIR Program.

Dr. Ken Campbell, Technical Point of Contact for this program, now retired, remains a strong supporter of the program, and agrees that several challenges lie ahead for the concept. Among these challenges are questions concerning how to encourage the larger acquisition houses to use these already developed, proven, and paid for SBIR technologies; how to minimize the technical risk arising from the dependencies among the various SBIR participants in this unbundling approach; and how to cover the costs of strong and active government technical leadership. Nevertheless, the SPAWAR team, including Mr. Randy Scott of the SPAWAR Systems Center, is optimistic that answer will be found to these questions to assure the success of this experiment.

Program managers of large systems can benefit by looking for unbundling opportunities for SBIR–funded firms to provide targeted, discrete solutions. This particular experiment was conducted with ForceNet.

A win-win scenario has been developed by this SPAWAR team that has benefits both for the government and the small businesses. For the government, the benefits will be more innovative products with more players and a more competitive environment resulting in more "bang for the buck." For the SBIR companies, this approach to teaming provides an introduction and access to new customers with new teaming opportunities that will support company growth. An experiment worth the investment!

Dr. Campbell and Mr. Scott provide program management and systems engineering support to the SBIR and PMW180 organizations located at the SPAWAR Headquarters Program Executive Office for Command, Control, Communications, Computers, Intelligence and Space (PEO C4I&Space) in San Diego. Current efforts include supporting (15) SBIR Phase I, Phase II, and Phase III projects that are planned to transition to the fleet through the SPAWAR PMW180 office. SPAWAR PEO C4I&Space points of contacts for the SBIR efforts are Ms. Linda Whittington and Mr. Stephen Brown.

From left to right Mr. Brown, Dr. Campbell, and Mr. Scott. Mr. Brown is the Program Manager on this effort. Dr. Campbell and Randall Scott work at the Space and Naval Warfare Systems Command Systems Center San Diego (SSC-SD) in the Intelligence, Surveillance, and Reconnaissance (ISR) Department (270).

HITTING A HOME RUN

Technical Points of Contact (TPOC), also referred to as Contracting Officer's Technical Representative (COTR) play an important role in transitioning technology to the fleet. TPOC's are often the original topic authors. If a TPOC is closely affiliated with industry leaders and understands the players' needs, it is more likely that the SBIR and STTR topics will address genuine industry concerns and therefore be better positioned to transition to Phase III.

John Carney is a Technical Point of Contact (TPOC) for the Office of Naval Research (ONR). Since 2000 John has had one topic per year in the Navy's SBIR solicitation. His topics relate broadly to Technology Shipbuilding Affordability, an area of interest for the National Shipbuilding Research Program (NSRP). In selecting topics, John relies heavily not only on NSRP's strategic plan, but also on his on-going interaction with NSRP's management. Keeping lines of communication open enables the voice of the shipbuilding industry to be heard on an on-going basis.

Unlike many topics generated within ONR, John's topics are more near term. "I like to see a product come out of Phase II that is very close to being usable by industry," he says. To achieve this objective, John selects projects and technical objectives that are achievable within the scope of a Phase II. He also encourages his Phase II awardees to develop a relationship with the standing panels of the NSRP. The National Shipbuilding Research Program has six major initiative panels and three technology panels that relate to broad areas such as welding, surface preparation and environmental technology. Each panel includes representatives from a variety of major shipyards and has a chairman who, among other things, schedules meetings of its members during the year. SBIR awardees with technologies closely aligned with the panel's objectives are encouraged to attend and to brief industry members.

John currently has a portfolio of seven Phase I's and 16 Phase II's. As a TPOC, he's available to provide assistance as needed, but believes strongly in setting the stage for companies to develop good relationships with the industry. This orientation starts with the Phase I Kick-Off meeting. "When the company comes in, they provide a technical overview of what they wish to accomplish and then I walk them through the requirements, as well as what I'm looking for in order to transition to Phase II. I talk with them about the NSRP and encourage the PI to contact the appropriate panel members to see if they can get an agenda timeslot at the next panel meeting. If the companies develop industry relationships during Phase II, not just with one shipyard, but with multiple representatives of various shipyards, it is more likely that their technology will transition to the fleet."

Small businesses that put Mutual Nondisclosure Agreements in place early in a relationship and begin to work side by side with industry partners during Phase I and II are more likely to benefit from an early home run. Using this strategy, companies such as On-Time Systems have successfully transitioned their technologies to the shipbuilding industry.

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THE NATIONAL SHIPBUILDING RESEARCH PROGRAM ADVANCED SHIPBUILDING ENTERPRISE (NSRP ASE)

Created at the request of the Navy in 1998, the NSRP is a collaboration of 11 U.S. shipyards with the Navy and suppliers of technologies and processes to reduce the cost of Naval ship acquisition and repair. The execution strategy has two parts: (1) Managing R&D that it oversees and controls and (2) Focusing R&D through collaboration with other programs including the Small Business Innovation Research Program (SBIR), the Small Business Technology Transfer (STTR) program and Shipbuilding Initiative (SI), which connects the shipbuilders capabilities with Navy MANTECH Centers of Excellence. According to NSRP's Executive Director, Rick Self, "our collaboration with John Carney worked so well, that when we were asked by NAVSEA to expand the program to its topics, the NSRP Executive Board overwhelmingly said 'Let's do it'."

NSRP offers many avenues for small business interaction through their website. The NSRP's strategic plan, available to the public, serves as the guide for everything that they do. Topic selection for both their own RFP's and for topic recommendations they make to the Navy's SBIR and STTR programs are both derived from this key document. In combination with this plan, NSRP sponsors a series of panels that address broad shipyard needs such as Welding Technology, Surface Preparation and Coatings, Business Process Technologies and others. The panels each convene around three times a year and are open to the public. The panel meetings attract 30 attendees on average and serve as ideal settings for networking, both with the shipyards and with the Navy. Often companies that have SBIR and/or STTR awards will make presentations at the panel meetings.

In addition to the opportunity for small businesses to interact with shipyards through the panels, there are designated SBIR points of contact for five shipyards on the website. Small businesses that are developing proposals and could benefit from teaming with a shipyard are encouraged to contact shipyard personnel to explore teaming opportunities.

Between 1999 and 2004, 46 SBIR projects have had direct shipyard involvement through NSRP. Most involvement starts with a shipyard being a subcontractor on an SBIR award. Examples of some projects that have yielded significant value to shipyards include *WeldQC*, whose system is undergoing shipyard usability testing; *Visotek*, which is providing a laser welding head; and *RLW's* wireless health monitoring of critical shipyard equipment. This collaboration is working well as a method for exploring and collaborating on innovation in shipbuilding and ship repair that collectively benefit all components of the industry.

http://www.nsrp.org/

NSRP website (includes NSRP contacts,including panels) For a schedule of upcoming panels, select "Conferences/Seminars"

http://www.nsrp.org/sip.html
NSRP Strategic Investment Plan

LOCKHEED-MARTIN: INVESTS IR&D DOLLARS TO MATURE NAVY SBIR-FUNDED TECHNOLOGIES

This article is based on an interview with George Root, the Director of Advanced Programs for Lockheed Martin in Baltimore, Maryland. George has held this position since May 2000.

A successful and exciting experiment has been quietly maturing during the past two years at Lockheed Martin's office in Baltimore, MD. Lockheed Martin employs more than 130,000 people worldwide. The Baltimore office is a division of Lockheed Martin Maritime Systems and Sensors (MS2), which employs more than 11,000 people and is the premiere systems integrator of network-centric naval combat systems. MS2 people work on more than 330 programs for U.S. military customers, as well as for international customers in nearly 50 nations.

So what is the experiment? Lockheed Martin, like many other U.S. corporations, has been dealing with the reduction of corporate sponsored R&D laboratories. Thus, they have been pursuing other methods for mining the Technology Structure of the United States and other countries. The concept of "Technology Structure" implies far more than just new ideas and concepts. The term refers to the entire technological culture and support infrastructure that spawns, cultivates, and then brings new ideas to maturity.

One of the most vitally important elements of the technology structure in the United States is the innovative small business. The innovative small business culture is characterized by small companies with highly responsive decision making hierarchies that allow good ideas or discoveries to morph quickly into great ideas. The limited R&D resources and inherently short chains of command of most small businesses combine to create environments where the concurrence of all decision makers, usually including the CEO, is achieved quickly. Thus, decisions to change the thrust of an R&D venture can be made quickly enough to take advantage of a new discovery, development, or opportunity.

Another important part of the Technology Structure of the United States is the Navy's SBIR program, which has proven to be a natural and effective technology maturation engine. Over the last two years, we have invested 10-15 percent of our Independent Research and Development (IR&D) dollars either directly or indirectly in working with SBIR companies, most of which we have met through the Navy Opportunity Forum. Our relationships tend to follow two primary paths: (1) we bring together their ideas with ours and merge the two, or (2) we mature their ideas with the objective of inserting the technology into one of our systems. We have successful examples of both.

We are currently working jointly with **Advanced Ceramics Research (ACR)**, from Tucson, AZ, that we met last year. ACR's Unmanned Aerial Vehicle (UAV) technology is both innovative and practical. The combining of its UAVs and support systems with our weapons launchers and associated sensor and command and control technology, has resulted in the development of a powerful new solution to a pressing Navy problem.

ACR's Silver Fox ready to be lauched.

InnovaTek is another example of an SBIR company with whom we are jointly working to solve an urgent Department of Defense problem. In this case, the customer is the U.S. Army and we are working on an opportunity to place InnovaTek's fuel reformer technology into a system that will provide electrical power to a stand-alone battlefield system for significantly extended periods of time. We are currently developing this battlefield system under a U.S. Army contract, and we understand the Concept of Operation and the system specifications. We are thus in a position to appreciate the importance of InnovaTek's future contribution to the system and are helping them market their technology to our customer. If this combined marketing effort is successful, next year we will jointly execute a contracted R&D effort funded by this U.S. Army customer.

InnovaTek's advanced power generation system concept produces 3-5 kW power using a fuel cell that runs from hydrogen produced by the InnovaGen® fuel processor.

On several occasions, we have brought together more than one SBIR-funded company into a single technology development initiative. For example, we have had an association with a small business for the past two years called **FAC, Inc.** from Seattle, WA. Not only have we introduced **FAC** to the SBIR program and written letters of support for their application, but we have also brought them together with another SBIR-funded firm, **VSSL**, from Alexandria, VA. We believe that jointly, these two SBIR firms will be able to develop a revolutionary new solution for the stabilization and shock isolation of major shipboard systems. As a developer of high-speed vessels, Lockheed Martin has a significant interest in the maturation of this technology.

Another example of our bringing together SBIR firms for a development is the previously described UAV development with **ACR**. Another of our Lockheed Martin business units has an R&D relationship with **CompuSensor Technology Corporation (CST)** of Gaithersburg, MD. We have taken **CST's** work with machine vision, image tracking, and image exploitation and integrated that capability with **ACR's** UAV operations to create a significant tactical capability that we believe will be of great value to our U.S. Navy Customer.

Lockheed Martin's leadership is very supportive of finding ways to work with small, advanced technology firms. Our SBIR process in Baltimore is similar to that of a sister organization. That process has been refined over the last two years and is now working very well.

Lockheed Martin's IR&D culture is usually quite flexible. We start each specific IR&D project with general goals and with funds allocated to accomplish those goals. However, if we find a particular opportunity for advancement by collaborating with a small business, we will refocus a portion of our funding to support that opportunity. Importantly, this can result in an increase in funding from both inside Lockheed Martin and from the sponsor of the SBIR. For example, when we saw the interest our customer had in a potential solution involving ACR, we increased our internal IR&D spending for that project by 70 percent and then we received SBIR sponsor funding of a nearly equivalent amount. This leveraging of the sponsor's funding resulted in a significant increase in the funding we were able to put against this technical problem.

There have been some surprises along the way. There's a steep learning curve in becoming involved with the SBIR program, not only from a technology/culture perspective but also from a legal and financial perspective. It takes significant effort for a large corporation such as ours to put any type of contract in place – i.e. a Non-Disclosure Agreement (NDAs), a Memorandum of Understanding (MOU), a teaming agreement, and then eventually a subcontract. This is usually a fairly fixed-cost, irrespective of the size or nature of the agreement that we put in place. However, our contracts, sub-contracts, and financial departments have been working hard to find ways to expedite these processes.

Some of the SBIR rules have been a surprise. For example, it is common for us to work with Navy or other DoD lab facilities when we need specialized testing and demonstrations. We didn't realize until recently, that if we partner with an SBIR firm as a subcontractor to them and wish to involve a federal lab, that the SBIR rules prohibit subcontracting any work to the federal labs. It takes time to become intimate with such subtleties.

You ask what kind of small company is good to work with. First and foremost, the company needs to have good ideas, preferably mature ideas that are consistent with our existing and future product lines. From a culture perspective they need to be open in their dealing with us. We always emphasize due diligence and due process and put appropriate NDAs and informal partnership agreements in place at the outset. This protects everyone. But, then we need open communication and routine access to the decision makers in the company.

Lockheed Martin in general, and the Baltimore office in particular, believe that the SBIR program is one of the primary sources of fresh, new technology and the partnerships that are necessary to mature that

Lockheed Martin's Evolving Technology Mining Process of Navy SBIR Opportunities

(1) Scout candidate firms at the Navy Opportunity Forum

(2) Interview and select interested SBIR firms

(3) Build more formal relationships with SBIR firms (NDAs, MOUs)

(4) Jointly visit customers to determine
a. Product discriminators within major programs

b. Areas of further investigation within SBIR venues

(5) Collaboration within LM IR&D technology culture

(6) Demonstrate combined technology at customer or Lockheed Martin-funded venue

(7) Jointly market demonstrated success in context of major program requirements

(8) Execute formal partnership agreement when opportunity emerges

technology. As we learn more about the SBIR culture and the associated administrative activities, we believe that it will become easier. Since our first real emersion during the Navy Opportunity Forum two years ago, we have involved 22 SBIR-funded companies in our evolving technology maturation process. We have informal marketing agreements in place with half of those, and are actively pursuing marketing activities with four or five. It is our belief that the appropriate co-leveraging of SBIR and IR&D funding in the pursuit of opportunities for both firms will result in significant SBIR Phase III and non-SBIR R&D contracts for both.

THE SBA POLICY DIRECTIVE

WHAT IS PHASE III?

David P. Metzger and Selwa Masri

A question that seems to be on the minds of many is "What is a Phase III?". Small businesses participating in the Small Business Administration's (SBA) Small Business Innovation Research (SBIR) Program, SBIR Program managers, elected officials, and large government contractors alike are interested in this question. It is not uncommon to hear related questions like:

"My SBIR business has funding from NSF. When we complete our Phase II and begin selling product – is that considered Phase III work?"

"My SBIR business has funding from NIH. If we obtain equity investments in our firm to advance this technology, are we still eligible to receive Phase III awards?"

"My SBIR business has SBIR funding from DoD. If we obtain a Congressional plus-up to extend my SBIR work, can that be considered a Phase III award? What if we enter into a subcontract with a large prime contractor or a licensing agreement?"

As the emphasis on Phase III work continues to heat up, knowing the answers to these and other questions is increasingly important to anyone working in the SBIR community. It may come as a surprise that the answer to all of the questions raised above is **"Yes"**.

This article explains Phase III work, when a SBIR company's work receives Phase III status, and the benefits associated with Phase III under the SBIR Program. **This article deals exclusively with Phase III awards made to DoD SBIR-funded firms.** This article does not deal with Phase III awards under the Small Business

Technology Transfer (STTR), which are subject to different rules. DoD and other federal agencies are, however, using the SBIR data rights clauses under the federal procurement regulations for STTR-funding arrangements.

The Small Business Administration's SBIR Program is a three-phase program that gives eligible small businesses unique opportunities to innovate new technologies and grow their businesses. In addition to the better known Phases I and II of the Program, Phase III provides SBIR businesses with opportunities to commercialize innovations in both government and private markets. Phase III also provides a host of unique benefits that allow SBIR businesses to enjoy tremendous revenue growth and competitive advantages in the marketplace. These same benefits also provide unique incentives for prime contractors to work with small businesses that have DoD SBIR funding.

The SBIR Program Policy Directive of September 24, 2002 (Directive) presents a two-part definition of a Phase III SBIR award as work that: (1) derives from, extends, or logically concludes efforts performed under prior funding arrangement and (2) is funded with non-SBIR funds. *(See http://www.navysbir.com/ and then select About SBIR/STTR to download the Directive).* The first element of this definition reflects the linear progression of moving innovations developed through Phase I (the idea feasibility and testing stage) and/or Phase II (the research and development stage) from the laboratory into the marketplace. To constitute a Phase III award, the funding opportunity in question must somehow derive from prior SBIR research.

The second element of the definition is that no SBIR set-aside funds can support Phase III awards. Instead, the funding must be sourced from the private sector or from non-SBIR set-aside federal agency funding. Once these two elements of the definitions are met, the opportunity can accurately be defined and treated as a Phase III funding opportunity. If the funding is from a federal source, then the Directive applies obligations on the funding agency which do not apply in the private sector.

PHASE III BENEFITS

No Funding Limit: Unlike Phase I and Phase II SBIR awards, Phase III awards are not subject to limits on the number, duration, type, or dollar value of the contract award. For example, Phase III awards may well exceed the $750,000 dollar size limit for Phase II awards, and, indeed, can be of any dollar size.

No Employee Size Requirement: In order to receive Phase I and Phase II SBIR awards, a small business can have no more than 500 employees (including affiliates). However, any small business that has grown beyond this employee size standard remains eligible to receive Phase III awards as long as the associated work derives from, extends, or logically concludes efforts performed by the business under prior Phase I and Phase II awards, when it met the SBIR employee size standard. Of course, businesses that continue to meet the SBIR employee size standard also are eligible to receive Phase III awards.

Preferred Status: For all Phase III awards, agencies are expected to give preference, including sole source awards, to the SBIR awardee that developed the technology. More specifically, the Directive requires an agency that pursues research, development or production of a technology developed by an SBIR awardee in a Phase I or Phase II with a concern other than the SBIR awardee to notify the SBA of its intention, prior to the award. The SBA may, in turn, appeal the decision to the head of the contracting activity who must then suspend further acquisition until a decision on the SBA's appeal is issued. Instances of awards to another firm will be reported to Congress in the SBA's Annual Report to Congress.

Continuation of SBIR Data Rights Protections: SBIR data rights apply to all Phase III awards by federal agencies. Thus, the SBIR Federal Acquisition Regulation (FAR) clause 52.227-20 or the DoD FAR Supplement (DFARS) clause 252.227-7018 must be included in every Phase III award.

SBIR data rights attach to all technical data or computer software generated under the SBIR award and give the Government rights to use the data or software at issue for any Government purpose, as that phase is defined by the DFARS. However, except under very limited circumstances, the Government cannot, without the permission of the SBIR business, release or disclose SBIR-generated data or software to any person other than its support services contractors. This restriction ensures that no technical data or software that constitutes a trade

secret of the SBIR business will be disclosed by the Government. The non-disclosure obligations continue only for the period starting with the SBIR award and ending 4 years (in the case of civilian contracts) and 5 years (in the case of military contracts) after the completion of the project under which the data was generated.

Given that Phase III awards are, by their nature, SBIR awards, they serve to extend these non-disclosure protections to all SBIR awards in the linear progression prior to the Phase III award for another 4 years (for civilian contracts) and 5 years (for military contracts) after completion of the Phase III award. The extension of prior SBIR award non-disclosure protection periods by a subsequent SBIR award, including a Phase III, is commonly referred to as the "roll-over" provision.

To the extent a SBIR business maintains its competitive position in the marketplace as a result of its confidential know-how, processes, and other trade secrets, the roll-over benefit of Phase III work no doubt will enable the SBIR business to maintain and strengthen that position.

Succession In Interest, Novation and other Rights: Phase III contracts can be novated or otherwise transferred to a successor-in-interest (acquiring companies for instance). This feature, coupled with the suspension of the size limits for Phase III awards, allows Phase III companies to transfer their SBIR rights and awards to acquiring companies, which inherit the sole source rights. No other SBA program allows for this unique feature.

Collectively, these Phase III benefits enable small businesses with DoD SBIR funding that have complied with the SBIR procurement regulations, to be highly competitive in the marketplace.

Small firms that have developed appropriate business relationships with large firms can transfer these benefits to large firms, allowing them, in turn, to leverage these Phase III benefits to maintain a stronger competitive advantage when doing business with DoD agencies.

This is a winning situation for all concerned. A small firm that protects its proprietary rights in technology maximizes its value when it transfers the technology pursuant to a stock or asset sale transaction. The large firm, as the purchaser, receives a valuable and protected technology. The government wins by having valuable technology in the hands of a large contractor that can speed integration of the technology into the DoD's mission.

For more information about Phase III of the SBIR Program, please contact David P. Metzger, the Chair of Holland & Knight LLP's Government Contracts group or Selwa Masri, a Technology Transactions Associate within Holland & Knight LLP's Business Law group. Mr. Metzger may be contacted at david.metzger@hklaw.com and Ms. Masri may be contacted at selwa masri@hklaw.com. Both Mr. Metzger and Ms. Masri practice in Holland & Knight LLP's Northern Virginia office.

IMPORTANT DATES

DATE	EVENT
JANUARY	
9	SBIR 05.2 Topics due to Navy
14	SBIR 05.1 Solicitation Opens
FEBRUARY	
1	STTR 06 Pre-Solicitation Release at www.dodsbir.net and Fedbizops
MARCH	
7-10	Spring National SBIR Conference Omaha
15	STTR 06 Solicitation Opens
APRIL	
11	SBIR 05.3 Topics due to Navy
15	STTR 05 Solicitation Closes 6 AM
MAY	
2-4	Navy TAP Opportunity Forum, Reston VA
2	SBIR 05.2 Pre-Solicitation Release at www.dodsbir.net and Fedbizops
JUNE	
15	SBIR 05.2 Solicitation Opens
JULY	
11	SBIR 06.1 Topics due to Navy
15	SBIR 05.2 Solicitation Closes 6 AM

COMPLEMENTARY PARTNERSHIPS: A RECIPE FOR SUCCESS

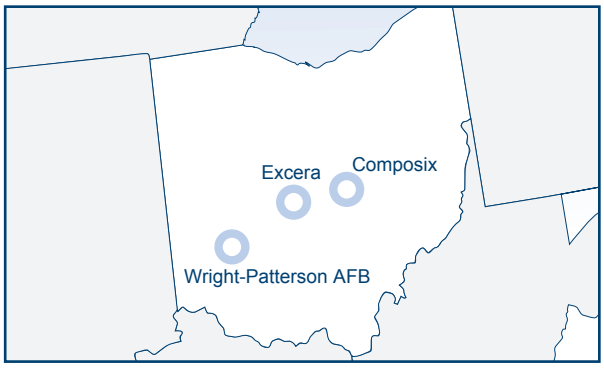
Sometimes accidents can have happy conclusions! That is what Michael Breslin, the President, CEO, and one of the three founders of Excera Materials Group, Inc. (www.exceramaterials.com), feels about his chance contact with Composix Company when they were in need of water jet cutting in 1999. Composix is another Ohio-based small business with SBIR funding. Upon inspecting the

water jet material, Composix' president, Larry Dickson, noted to Mr. Breslin that the material was very hard and could potentially be used for armor inserts. Later, when a Phase I SBIR solicitation for armor was won by Excera, they called upon Composix to co-develop the Small Arms Protective Inserts (SAPI). That was the beginning of an exciting partnership for both firms that led to a Fast Track Phase II as a result of securing venture capital backing.

The family of composite materials that Excera has developed is called ONNEX and exhibits the best properties of metals and ceramics. When compared to traditional materials, such as cast aluminum, ONNEX exhibits higher performance. In contrast to more exotic materials such as advanced ceramics or titanium, the ONNEX materials processes are extremely robust and can be cost effectively scaled to high volumes. The flexibility of the ONNEX process also enables tailored materials to meet the specific application demands such as strength, hardness, density, thermal and wear resistance, as well as electrical and thermal conductivity.

Later, when Composix won an Army contract for interceptor body armor inserts, they called upon Excera to develop the material required to meet the specifications required for the overall system. In all, the partnership has been able to develop the system technology and improve the ballistics performance of the ONNEX-A material systems Full production was achieved in less than one year! This is a feat that Mr. Breslin doesn't believe would have been possible by Excera alone. The two companies have been able to leverage each other's talent, capabilities, and resources to provide a "next-generation" lightweight, comfortable, affordable, higher performance armor. Composix has extensive experience in the knowledge of armor and the military as well as overall customer requirements. Excera was therefore able to focus their efforts on the ceramic developments.

The success of this joint effort was enhanced by the fact that both companies are small, agile, and are located within 50 miles of each other in south-central Ohio. The close proximity to Wright-Patterson Air Force Base has given rise to another partnership that involves Air Force personnel in the characterization of the various ceramic

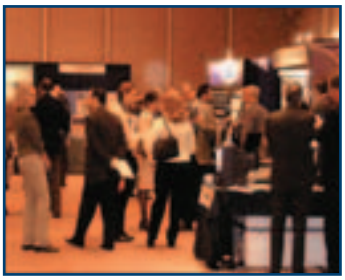


structures. When asked why the Air Force was so willing to help, Mr. Breslin was quick to indicate that all of the services are very interested in anything to help save lives.

A clear believer in the value of teaming and leveraging available resources, Excera has also successfully partnered with the State of Ohio and their venture capital resources. Mr. Breslin is convinced that Excera's capabilities will continue to be expanded through partnering.

This is an example of a successful relationship involving two small businesses, the state and Wright-Patterson Air Force Base. Ohio has an excellent state service provider network that facilitates interaction amongst companies.

THE NAVY OPPORTUNITY FORUM



The Navy Opportunity Forum is the culminating event for companies participating in the Navy Transition Assistance Program (TAP). Only firms with a current Navy Phase II SBIR or STTR award are eligible to participate in the Navy TAP which begins each year in July with a Kick-Off meeting and ends the following May with the Navy Opportunity Forum. During the TAP, participating firms receive market research and develop a variety of tools including a Phase III Transition Plan, a Briefing, a Quad chart, and a Capabilities Brochure (new this year). Some participating firms also take the opportunity to update or develop a business plan. "TAP graduates" are well-prepared and then showcased in the Navy Opportunity Forum.

Since 2000, the audience for this culminating event has been growing, reaching attendance of 708 last year. Eighty-one firms presented 95 projects to an audience of over 342 representatives from prime contractors and 155 representatives from the Federal Government. In 2005, we anticipate that 125 companies will present 144 opportunities.

Mark your calendars now and reserve May 2-4, 2005 to attend the 2005 Navy Opportunity Forum in Reston, VA – an event for prime contractors, the government acquisition community, and private investors. The following comments are excerpts from last year's attendees.

"It's informative and inspirational to see the dedication and ingenuity of these small companies."

"The level of technology and innovation being presented is unmatched at comparable events."

"I discovered many companies with core technologies that can be applied to my product. This was a good way to quickly establish quality contacts."

"This was a great Forum to find quality small businesses that have technical synergies and/or companies that my large (prime) business is looking to partner"

"As a prime, we can't visit SBIRs without strong relevance to our needs. This event allows us to explore other opportunities."

"Invite me back next year!"

PUTTING THE PIECES TOGETHER

RLW, Inc. *(www.rlwinc.com)* knows the value of partnerships. The company routinely collaborates with other small firms, universities, and defense prime contractors to develop a desired solution! RLW, Inc. had long felt that they had developed the missing piece in Condition-Based Maintenance (CBM) systems – a device that will take all the data retrieved from a monitored machine, reduce it to a required human action, and then transmit the action and summarized information wirelessly, anywhere in the world to the person responsible. However, Lewis Watt, president and co-founder of RLW, Inc. said that he finally realized that they were actually missing the entire CBM system! In other words, their success was dependent upon their ability to find where their device actually was needed! This naturally led to the conclusion that for RLW, a partnering strategy was essential.

RLW, Inc., a State College, PA firm, was founded in 2000 for the purpose of developing the highest quality software for CBM applications. They have since expanded their business to include CBM devices and systems with a focus on predicting how long equipment can continue to operate and when maintenance will be required. By extracting information from machines early enough, unexpected failure can be avoided. Although CBM systems have been in place for years, RLW's technology differs from traditional systems in four ways: it's small, it's smart, it works in a wireless architecture, and it processes data into useful information at the monitored machine – all further reducing the price tag.

Lack of a device that produces meaningful machine health information has hampered the implementation of condition-based maintenance solutions. RLW has developed and fielded the **S2NAP®**, a machine health monitoring device that accepts data from up to eight transducers, performs the necessary signal conditioning, A/D conversion, then processes the data into useful health information, and sends that information wirelessly from the monitored machinery component.

RLW, along with four other companies, is working with a leader in the machine health monitoring industry to provide a total structural health monitoring solution in the commercial arena. For Navy opportunities, RLW is leading the team with a focus on both legacy and future ship structural health monitoring.

Another teaming approach being implemented by Bill Nickerson, Vice President, Technology Director, and co-founder of RLW, Inc. is to create and manage good SBIR-based partnership. RLW is taking the lead on a Phase II SBIR project and collaborating with three other SBIR firms – Beacon Interactive with their human interface technology, Sonalyst with the training resources, and Impact's algorithm expertise. This partnership is especially unique in that it also involves the teaming of these four small businesses with Northrop Grumman Ship Systems and Northrop Grumman Mission Systems.

In addition, RLW in conjunction with Applied Research Labs and Penn State University has recently won a

contract for implementing a health monitoring system for portal cranes. Other partners on this project include the National Steel and Shipbuilding Company (NASSCO), a General Dynamics company, and Northrop Grumman, Ingalls - both subcontractors to RLW, Inc. - that will act as demo sites. In this project, RLW, Inc. will be acting as the systems integrator, a move that brings the company closer to fulfilling their desired vision for the firm. RLW, Inc. is also participating in a National Shipbuilding Research Program *(www.nsrp.org)* for ongoing crane work with partner, ID Systems, NASSCO and Northrop Grumman, Ingalls. This program will apply wireless equipment monitoring and control systems with RLW's S2NAP® being a key component.

What is the value of these partnerships? Partnerships such as these allow each entity to focus on their strong suite. With RLW's expertise in embedded operating systems and circuit card designs, the total solution developed by the partnership benefits the customer through improved uptime and reduced costs of maintenance. Surprises are eliminated and expensive preventive maintenance costs are avoided.

Mr. Nickerson is strategically driving another aspect of RLW's vision to move more solidly into the power generation markets. Through a teaming relationship with Azima, Inc. and Electric Power Research Institute (EPRI), they are exploring the opportunities in nuclear power plant maintenance.

Mr. Watt is convinced their future success will be based on good partnerships. RLW, Inc. views partnering as the ideal way to establish a complete solution. As a long term strategy, it has the additional benefit of bringing new opportunities and additional contracts to solve problems that couldn't be solved with their own technologies alone.

RLW found their partners through the Navy TAP, as a result of past acquaintances, and proposal writing. After seeking each other out, proposals and relationships developed and flourished. Partnership development is truly a result of finding a good fit. If the capabilities of an organization are known, a partnership can be started with only a couple of phone calls. However, for others that are a less obvious fit, several months may be required to learn each others capabilities.

WHY PHASE III IS SO IMPORTANT TO THE NAVY

One of the four goals from the original 1982 SBIR legislation is *"to increase private sector commercialization of innovations derived from Federal research and development"*. Commercialization is defined in the SBA Policy Directive as *"The process of developing marketable products or services and producing and delivering products or services for sale* (whether by the originating party or others) *to Government or commercial markets"*. It further defines Phase III as *"typically oriented towards commercialization of SBIR research or technology"*. So "commercialization" is a major element of the SBIR program and the measurement of Phase III funding and contracts, is one of the clearest ways to measure success for the SBIR program. Over the last 13 years the Navy has structured its SBIR program to plan for and find early commitment to Phase III funding. The heavy involvement by our PEO and Acquisition activities, strong support by the Navy SBIR Program Mangers, the Transition Assistance Program (TAP), Navy Opportunity Forum and Primes Initiative have all helped to increase Phase III funding. However, these efforts need continuous attention and improvement so that the Navy will continue to meet the needs of our service men and women through technologies developed under the SBIR and STTR programs.

Congress has stepped up the pressure for more Phase III's by the DoD. In the House Report 108-491 accompanying the 2005 Defense Authorization Act, the House Armed Services Committee (HASC) is requiring USD (AT&L) to *"(1) provide information on DOD SBIR Phase III awards during the past three years; (2) describe what actions the Office of the Secretary of Defense has taken to encourage DOD acquisition program managers to award SBIR Phase III contracts a higher rate and to make award of SBIR Phase III contracts a priority with the Defense Acquisition system; and (3) identify specific Phase III transitions that have been conducted or are planned in fiscal year 2005"*.[1] The small business community is pushing for an increased focus and major changes that would help to provide transformational opportunities and incentives – for small business, government contractors and federal program offices.[2]

The National Academies of Science has been tasked by Congress to study the SBIR program and has been very interested in some of the practices and success the Navy SBIR program has had. They have requested John Williams, Acting Navy SBIR Program Manager, to brief their committee on Navy practices in an effort to provide Congress with insight and recommendations that can improve the SBIR program. In his presentation Mr. Williams showed data from the DD-350 forms DOD uses on all contract actions which has a section

[1] The National Defense Authorization Act FY2005, Report 108-491 (14 May, 2004) requires the Undersecretary of Defense-Acquisition, Technology & Logistics (USD-AT&L) to report recent Phase III awards and actions to Congress by 31 March, 2005.

[2] See "Response to Questions" to House Armed Services Committee by Small Business Technology Coalition members testifying before HASC, 21 July, 2004.

to indicate whether the contract action is a Phase III. This data showed that in 2003 the Navy made over 80% of all the DOD Phase III and each year since 2000, have more Phase III awards than all the other DOD agencies combined.[3] Many of the DOD agencies view this data as unreliable and incomplete. Everyone agrees that not all Phase III contracts are marked properly. Nonetheless, Mr. Williams feels it is the best data source the DOD currently has for gathering Phase III award info from SBIR and STTR firms. Nonetheless, in HASC deliberations during a 12 July 2004 hearing, Congress showed no unmistakable signs that it would like to see far better Phase III success from the diverse DoD entities with SBIR programs.

How is Phase III success measured?

In a landmark 1998 directive, then- Undersecretary for Defense Acquisition J.S, Gansler requested that DoD departments, agencies and offices strengthen SBIR programs for increased Phase III outcomes. Dr. Gansler's memo specified that data which measures "private sector and other non-SBIR funds during and shortly after Phase II" and conversion of "prior SBIR projects into viable new products sold to DoD and others" needs to be gathered and then used during the evaluation of Phase I and II proposals. So, Phase III is defined by revenue accrual to SBIR awardees from non-SBIR sources.

The Iraq war has prompted a steady drumbeat for the need by: the Army, Navy and Air Force to quickly transition critically-needed new technologies into vital warfighter programs. In presentations to defense leaders at the August, 2004 Naval-Industry Partnership Conference, both Secretary of the Navy Gordon England and Chief of Naval Operations Vern Clark challenged the Navy, and its small business/large corporate contractor base, to solve this problem on a priority basis. The National Academies – tasked by Congress after SBIR reauthorization in 2000 with evaluation of SBIR – carried a similar message to The SBIR Tri-Services Conference in April, 2004. Their presentation cited "The Myth of Military Spin-Offs … (and) 'spin-ins' are often blocked by complicated military procurement systems."[4]

Congress powerfully led the charge on this crucial defense acquisition/procurement issue in the House Armed Services Committee's Report 108-491 language. "The committee believes that our soldiers, sailors, airmen, and marines deserve to have the best tools possible as they wage the global war on terrorism," … the Report stated, and then singled out the successful 2Q2004 Navy-Marine Quick Response SBIR solicitation "seeking immediate innovative technology approaches for protecting (our forces in Iraq)." That solicitation generated ~30 awards within four months from topic need to Phase I award – about a third the normal process time.

HASC's forceful concluding comments left no doubt about Congressional intent with respect to SBIR and Phase III: "The committee directs that the USD- AT&L encourage DoD acquisition program managers and prime contractors to make significantly more SBIR Phase III contract awards than has been done in the past."

This isn't the first Congressional foray into Phase III affairs. While Congress emphasized commercialization in its 1992 SBIR reauthorization, it also included language in the Defense Authorization Acts of 1999 (Sec. 818, the so-called "Warner amendment" after Sen. John Warner, R-VA) and 2000 (Sec. 812: "Increase the transition of SBIRs … into acquisition programs.").

For implementation advice, HASC turned on 21 July, 2004 to leading small business executives with plenty of Phase III savvy: Tony Mulligan of Advanced Ceramics Research, whose Silver Fox UAV is designed to safeguard military conveys; Nick Karangelen, whose Trident Systems' IT engineers have an extensive record of technology solutions; and other entrepreneurs with the Small Business Technology Coalition. The HASC also formally complemented the Navy on their initiatives that have lead to substantial Phase III's contracts by the Navy. Under Karangelen's leadership, a coterie of best practice Phase III small business veterans is expected to respond in detail to the urgent HASC request from Rep. Curt Weldon (R-PA) and others for a menu of Phase III incentive options to ensure that's the committee's intent regarding "more SBIR Phase III contract awards" is realized.

The National Academies followed with its own 16 September, 2004 "SBIR Report Release and Issues Review", where Karangelen, and Heidi Jacobus (Cybernet Systems) discussed Phase III issues to an audience of senior Congressional staff from key House and Senate committees including Armed Services, Small Business and Science, as well as key figures from SBA and related federal agencies, and numerous foreign embassies. To illustrate best practice, Phase III presentations were given by National Science Foundation SBIR Program Manager Kesh Narayanan and the Navy's John Williams.

The importance of Phase III awards to DOD small businesses, both direct from the DOD and from large DOD prime contractors, continues to grow and is the critical element to the success of the DOD's SBIR program. This is a complicated issue and one that there is no single solution will solve. The Navy's SBIR program believes that the key is to develop strong partnerships between Small Businesses, Acquisition Managers, and Defense Primes and provide the proper incentives that will motivate these activities to work together. The Navy SBIR office is encouraged by the interest in Phase III awards and believes that the Navy team has developed a good foundation, but there is much still to do.

[3] DoD DD-350 report forms for FY 2003.

[4] The National Academies, "Small Business Innovation Research Program" presentation to Tri-Services Conference, 8 April, 2004.

NAVY PHASE III OBLIGATIONS MADE DURING FY04 AS OF OCTOBER 2004

Total command dollars obligated as of October 2004 to Phase III Projects in FY04 as reported on the DD350

TOPIC NUMBER	COMPANY NAME	PHASE III SPONSOR	CONTRACT NUMBER	OBLIGATED IN FY04
MARCOR				
N99-037	ARETE ASSOCIATES	ONR HQ	N0001403C0301	$ 1,876,000
A97-024	BOSTON DYNAMICS	MCLB ALBANY GA	M6700403C0015	$ 126,500
CBD02-203	CYRANO SCIENCES INC	MCLB ALBANY GA	M6700403C0018	$ 2,856,418
N03-001	GRIFFIN ANALYTICAL TECHNOLOGIE	MCLB ALBANY GA	M6700404C0014	$ 692,000
N00-022	MAINSTREAM ENGINEERING CORPORA	MARCORPS QUANTICO VA	M6785404C7054	$ 460,000
N00-022	MAINSTREAM ENGINEERING CORPORA	ONR HQ	N0001404M0037	$ 50,905
A96-032	OPTICAL AIR DATA SYSTEMS LP	MCLB ALBANY GA	M6700403C0013	$ 23,864,000
A96-032	OPTICAL AIR DATA SYSTEMS LP	MCLB ALBANY GA	M6700404C0086	$ 2,809,955
N99-200	SCIENTIFIC APPLICATIONS AND RE	MARCORPS QUANTICO VA	M6785403C1018	$ 324,948
			MARCOR TOTAL	**$ 33,060,726**
NAVAIR				
N00-101	ADVANCED CERAMICS RESEARCH, IN	NAWC LAKEHURST NJ	N6833504D0018	$ 328,000
N00-005	ADVANCED TECHNOLOGIES GROUP, IL	NAWC LAKEHURST NJ	N6833504D0006	$ 142,000
N01-165	AMERICA S PHENIX	NAWC LAKEHURST NJ	N6833504D0003	$ 421,368
N00-013	APPLIED HYDRO-ACOUSTICS RESEAR	NAWC LAKEHURST NJ	N6833502D0022	$ 206,257
N90-074	ATK MISSILE SYSTMES COMPANY	NAWCAD PAX RIVER MD	N0001903C0353	$ 31,619,587
N99-180	BARRON ASSOCIATES INC	NAWC LAKEHURST NJ	N6833503D0097	$ 189,936
N98-041	COMPOSITE OPTICS, INCORPORATED	NAWC LAKEHURST NJ	N6833503D0104	$ 58,379
N00-008 & N00-009	DIGITAL SYSTEM RESOURCES, INC.	NAWC LAKEHURST NJ	N6833503D0105	$ 95,473
N95-147	DYNAMIC RESPONSE INC	NAWC LAKEHURST NJ	N6833502D3009	$ 196,000
N00-105 & N01-150	EDAPTIVE COMPUTING INC	NAWCAD PAX RIVER MD	N0042104D0007	$ 19,955
N98-043	ESSEX CORPORATION	NAWC LAKEHURST NJ	N6833502D0009	$ 928,475
N01-018	FORM FIT AND FUNCTION LLC	NAWC LAKEHURST NJ	N6833504D0014	$ 670,000
MULTIPLE	FOSTER-MILLER INC	NAWC LAKEHURST NJ	N6833503D0101	$ 600,000
N97-029	HOOD TECHNOLOGY CORPORATION	NAWCAD PAX RIVER MD	N0042103D0064	$ 1,605,397
N00-001	IMPACT TECHNOLOGIES, LLC	NAWC LAKEHURST NJ	N6833504D0010	$ 52,000
N90-264	ISERA GROUP, LLC	NAWCTSD ORLANDO FL	N6133997D0006	$ 1,519,798
N92-136	ISOTHERMAL SYSTEMS RESEARCH	NAWC LAKEHURST NJ	N6833500D0451	$ 3,416,301
N92-136	ISOTHERMAL SYSTEMS RESEARCH	NAWC LAKEHURST NJ	N6833504D0008	$ 162,399
N98-160	ITCN INC	NAWC LAKEHURST NJ	N6833502D0021	$ 20,000
N95-033	JENTEK SENSORS, INC	NAWC LAKEHURST NJ	N6833500D0463	$ 149,246
N95-022	KLEIN ASSOCIATES INC	NAWCTSD ORLANDO FL	N6133902C0157	$ 955,080
N01-024	LAMBDA RESEARCH, INC	NAWC LAKEHURST NJ	N6833504D0001	$ 49,000
N90-085	LOGIS-TECH, INC	NAWC LAKEHURST NJ	N6833501D0096	$ 73,521
N90-085	LOGIS-TECH, INC	NAWC LAKEHURST NJ	N6833504D0002	$ 33,589
N98-149	MATERIALS RESEARCH& DESIGN, IN	CNAWC LAKEHURST NJ	N6833502D0027	$ 398,976
N99-054	MSE TECHNOLOGY APPLICATIONS	NAWC LAKEHURST NJ	N6833504D0012	$ 979,828
N99-055	MULTISPECTRAL SOLUTIONS, INC	NAVAIR HQ	N0001904D0083	$ 2,133,589
N92-170	NAVMAR APPLIED SCIENCES CORPOR	NAWC LAKEHURST NJ	N6833500D0396	$ 1,952,070
N92-170	NAVMAR APPLIED SCIENCES CORPOR	NAWC LAKEHURST NJ	N6833502D0030	$ 9,329,355
A98-149	OPTICAL SCIENCES CORPORATION	NAWCTSD ORLANDO FL	N6133904C0090	$ 538,949
N91-346	OPTICS 1, INC.	NAWC LAKEHURST NJ	N6833501D0293	$ 712,34
N99-192	OPTICS 1, INC.	NAWC LAKEHURST NJ	N6833504D0004	$ 13,759,579
N95-005	PHOENIX SCIENCE & TECHNOLOGY	NAWC LAKEHURST NJ	N6833500D0471	$ 97,000
N99-053	PHYSICAL SCIENCES INC.	NAWC LAKEHURST NJ	N6833503D0099	$ 959,688
N98-035	RDA INC	NAWC LAKEHURST NJ	N6833502D3109	$ 2,489,044
N96-061	REYNOLDS SYSTEMS, INC.	NAWC LAKEHURST NJ	N6833502D0025	$ 228,886
N97-006	RL ASSOCIATES	NAWC LAKEHURST NJ	N6833504D0011	$ 1,144,436
A01-209	SAN DIEGO RESEARCH CENTER, INC	NAWCTSD ORLANDO FL	N6133904D0039	$ 2,837,497
N92-152	SEA SYSTEMS GROUP INC	NAWC LAKEHURST NJ	N6833504D0007	$ 1,145,387
N98-072 /N98-077	SOLIPSYS CORPORATION	NAWCAD PAX RIVER MD	N0042102D3065	$ 1,293,957
N97-030	THERMAL WAVE IMAGING, INC	NAWC LAKEHURST NJ	N6833502D0033	$ 660,141
N95-156	TRITON SYSTEMS INC	NAWC LAKEHURST NJ	N6833501D0125	$ 244,000
N01-008	VEKTREX ELECTRONIC SYSTEMS, I	NAWC LAKEHURST NJ	N6833504D0013	$ 256,476
N99-184	VIRTUAL TECHNOLOGY CORPORATION	NAWCTSD ORLANDO FL	N6133904C0027	$ 201,620
N99-184	VIRTUAL TECHNOLOGY CORPORATION	NAWCTSD ORLANDO FL	N6133904C0109	$ 459,997
			NAVAIR TOTAL	**$ 85,334,560**
NAVFAC				
N01-027	POLYSPEC L P	CBC PORT HUENEME CA	N4740804P6929	$ 99,860
N97-140	SEILER INTERNATIONAL CORP (SE	CBC PORT HUENEME CA	N4740804C7519	$ 1,429,139
			NAVFAC TOTAL	**$ 1,528,999**

NAVSEA (CONT)

N99-118	21ST CENTURY SYSTEMS, INC	NSWC PANAMA CITY FL	N6133104P3729	$	57,402
N97-090	ADVANCED ACOUSTIC CONCEPTS INC	NAVSEA HQ	N0002400D6106	$	7,497,336
N97-090	ADVANCED ACOUSTIC CONCEPTS INC	NAVSEA HQ	N0002402C6311	$	14,852,218
N98-106	ADVANCED ACOUSTIC CONCEPTS INC	NUWC NEWPORT RI	N6660401D4218	$	500,000
N98-114	AEPTEC MICROSYSTEMS, INC	NSWC CARDEROCK	N0016700D0097	$	12,168,514
N98-114	AEPTEC MICROSYSTEMS, INC	NSWC DAHLGREN VA	N0017800D3052	$	8,012,566
N99-224	APPLIED HYDRO-ACOUSTICS RESEAR	NAVSEA HQ	N0002403C6302	$	948,031
N96-268 (N02-035)	APPLIED ORDNANCE TECHNOLOGY, I	NSWC DAHLGREN VA	N0017804D1025	$	2,730,220
BMD002-002	ARCHANGEL SYSTEMS, INC	NSWC DAHLGREN VA	N0017804D1036	$	2,400,000
N96-071	AVINEON, INC.	NAVSEA HQ	N0002403C4049	$	12,432
MULTIPLE	CHESAPEAKE SCIENCES CORP	NAVSEA HQ	N0002400C6230	$	7,935,482
MULTIPLE	CHESAPEAKE SCIENCES CORP	NAVSEA HQ	N0002498C6203	$	2,911,437
N96-288	CORTLAND CABLE COMPANY INC	NUWC NEWPORT RI	N6660404C3567	$	250,000
N01-073	CREATIVE APPLIED TECHNICAL SYS	NSWC INDIAN HEAD	N0017404M0131	$	82,990
N99-133 & N99-139	DIGITAL SYSTEM RESOURCES, INC.	NAVSEA HQ	N0002400C5130	$	3,614,000
N98-072, N98-104, N99-122, N98-127, N99-113, N99-145 & N99-140	DIGITAL SYSTEM RESOURCES, INC.	NAVSEA HQ	N0002401C6316	$	9,151,591
N91-133	DIGITAL SYSTEM RESOURCES, INC.	NAVSEA HQ	N0002403C5136	$	16,768,323
MULTIPLE	DIGITAL SYSTEM RESOURCES, INC.	NAVSEA HQ	N0002403C5439	$	8,988,345
N99-145	DIGITAL SYSTEM RESOURCES, INC.	NSWC CRANE	N0016403C6015	$	2,736,981
MULTIPLE	DIGITAL SYSTEM RESOURCES, INC.	NAVSEA HQ	N0002403C6306	$	1,248,000
N93-027	MALIBU RESEARCH ASSOCIATES INC	NSWC DAHLGREN VA	N0017802C3085	$	1,618,000
N96-103	NOESIS, INC.	NAVSEA HQ	N0002404C4000	$	3,660,434
N96-278	PROGENY SYSTEMS CORPORATION	NAVSEA HQ	N0002400C6226	$	20,261,000
N96-278 & N98-122	PROGENY SYSTEMS CORPORATION	NAVSEA HQ	N0002403C6201	$	4,162,886
N00-049	PROGENY SYSTEMS CORPORATION	NAVSEA HQ	N0002403C6219	$	11,432,768
N99-200	SCIENTIFIC APPLICATIONS AND RESEARCH	NSWC DAHLGREN VA	N0017804C3043	$	1,177,627
N98-077& 072	SOLIPSYS CORPORATION	NAVSEA HQ	N0002402C5108	$	710,000
N03-064	TANNER RESEARCH, INC.	NSWC DAHLGREN VA	N0017804C1033	$	100,000
N92-095	TPL, INCORPORATED	NSWC CRANE	N0016401C4701	$	671,935
N92-095	TPL, INCORPORATED	NSWC CRANE	N0016402C4703	$	842,876
N92-095	TPL, INCORPORATED	NSWC CRANE	N0016404C4713	$	450,000
N93-101	TRIDENT SYSTEMS, INC	NSWC DAHLGREN VA	N0017800D3007	$	7,074,773
N96-087 & N99-144	TRITON SYSTEMS INC	NSWC DAHLGREN VA	N0017803D1014	$	526,083
N01-120	TOYON RESEARCH CORP	NSWC DAHLGREN VA	N0017804C1083	$	500,000
			NAVSEA TOTAL	**$**	**156,054,250**

ONR

D98-027	21ST CENTURY SYSTEMS, INC.	ONR HQ	N0001404M0320	$	75,000
N97-067	ADVANCED CERAMICS RESEARCH, IN	ONR HQ	N0001403C0329	$	2,215,741
N02-T015	ADVANCED CERAMICS RESEARCH, IN	ONR HQ	N0001403D0247	$	990,038
MULTIPLE	AEPTEC MICROSYSTEMS, INC	FISC SAN DIEGO DET LONG BEACH	N0024401D0036	$	175,169
OSD97-013	ALASKA NATIVE TECHNOLOGIES, LL	ONR HQ	N0001402C0437	$	1,385,971
N01-035	ARETE ASSOCIATES	ONR HQ	N0001404C0011	$	984,700
N01-032	COGNITECH, INC.	NAWCWD CHINA LAKE CA	N6893600C0188	$	327,000
MULTIPLE	DIGITAL SYSTEM RESOURCES, INC.	ONR HQ	N0001401D0225		5,425,000
N00-090	NANOMAT, INC.	ONR HQ	N0001404C0236	$	1,499,461
N02-073	OBJECTVIDEO, INC.	SPAWARSYSCEN SAN DIEGO	N6600104MR301	$	32,055
N95-074	OCEAN POWER TECHNOLOGIES INC	ONR HQ	N0001401C0368	$	801,187
N99-T001	ON TIME SYSTEMS, INC	NAVSEA HQ	N0002404C6211	$	1,380,000
N02-112	POLATOMIC INC	ONR HQ	N0001403C0499	$	330,000
N02-112	POLATOMIC INC	ONR HQ	N0001403C0388	$	835,000
N99-025	SCENPRO, INC	ONR HQ	N0001403C0257	$	360,799
N01-T002	SCIENTIFIC SOLUTIONS INC	ONR HQ	N0001404C0451	$	831,230
BMD001-014	SEMISOUTH LABORATORIES	ONR HQ	N0001403C0359	$	1,856,966
N01-138	SONOMA DESIGN GROUP	FISC SAN DIEGO DET LONG BEACH	N0024404C0034		7,000,000
D98-001	THE KILDARE CORPORATION	NAVSEA HQ	N0002404C6303	$	1,690,621
			ONR TOTAL	**$**	**28,195,938**

SPAWAR

N93-003	BENTHOS, INC.	SPAWARSYSCEN SAN DIEGO	N6600199D7002	$	883,611
N94-203	DARLINGTON INCORPORATED	SPAWARSYSCEN CHARLESTON	N6523699D5831	$	8,226,878
N99-110	DARLINGTON INCORPORATED	SPAWARSYSCEN SAN DIEGO	N6600103D7000	$	2,529,134
N99-167	PROMIA INCORPORATED	SPAWAR HQ	N0003901C3167	$	2,909,520
N91-017, N92-022	VIASAT, INCORPORTED	SPAWARSYSCEN SAN DIEGO	N6600199D7000	$	2,028,200
N94-004	VIASAT, INCORPORTED	SPAWARSYSCEN SAN DIEGO	N6600199D7001	$	67,318
			SPAWAR TOTAL	**$**	**16,644,661**

TOTAL COMMAND DOLLARS OBLIGATED AS OF OCTOBER 2004 TO PHASE III PROJECTS IN FY04 AS REPORTED ON THE DD350

81 FIRMS & 114 CONTRACTS **$ 320,819,134**

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For comments or questions about this newsletter contact: **JOHN WILLIAMS**: williajr@onr.navy.mil
Acting, Navy SBIR Program Manager
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