

U. S. Department of Defense  
Small Business Innovation Research Program  
Commercialization Pilot Program (CPP)

Report for Fiscal Year 2007



Office of the Under Secretary of Defense  
(Acquisition, Technology & Logistics)

Office of Small Business Programs

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## Executive Summary

The U. S. Department of Defense (DoD) Small Business Innovation Research (SBIR) Commercialization Pilot Program (CPP) is an initiative authorized by section 252 of the National Defense Authorization Act for Fiscal Year 2006 (FY06), Public Law No. 109-163 (NDAA), which contains several provisions regarding the SBIR Program. Section 252 amends section 9 of the Small Business Act (15 U.S.C. 638) to add a new subsection 9(y), that authorizes the Secretary of Defense and the Secretary of each Military Department to create and administer a Commercialization Pilot Program (CPP). To fund the administrative cost of the pilot programs, section 9(y) authorizes use of up to an amount equal to 1% of the SBIR set-aside budget. These funds may not be used to make Phase III awards. The pilot program is authorized through FY09.

In June 2006, the Under Secretary of Defense for Acquisition, Technology & Logistics (USD(AT&L)) requested that the Military Departments stand up activities that enhance the connectivity among SBIR-firms, prime contractors, and DoD science and technology and acquisition communities to facilitate the type of collaboration needed to enable effective technology transition. The USD(AT&L) further requested that plans address improving the capability of SBIR firms to provide the identified technology to the Department, directly or as a subcontractor. In July 2007, the USD(AT&L) encouraged all additional DoD Components participating in the SBIR Program to also establish CPP initiatives utilizing the authority.

FY07 CPP activities focused primarily on implementing plans set forth in FY06 by the Military Departments (MILDEPs). The MILDEPs constitute over 75% of the DoD SBIR program. CPP implementation approaches among the MILDEPs vary in how SBIR projects with rapid transition potential are identified and selected, and what type of assistance will be provided to accelerate technology commercialization. The Army has established a process whereby candidate technologies are identified via business and technology assessment, and selected projects receive comprehensive transition planning and commercialization assistance. A contract was awarded to MILCOM Venture Partners in May 2007 and, at the time of writing this report, 25 candidate CPP projects were identified. The Air Force has put “Transition Agents” in place among its product centers to support an SBIR technology “hunter-gatherer” process to identify and facilitate the transition of technologies addressing technology needs. Initial engagement with two of four product centers is complete with nine CPP candidates identified. The Navy has stood up a centralized SBIR Accelerated Transition (SAT) Program through which candidate projects submitted by industry and its systems commands are considered for additional funding. In total, 51 Navy projects have been identified for CPP support. Major Navy systems commands have also stood up their own CPP activities and initiated a broad assessment of all SBIR Program processes.

The Department has undertaken a range of additional activities to address the requirements and intent of the CPP and improve the broader SBIR Program, including improving data collection and supporting a DoD-wide SBIR technology showcase event: “Beyond SBIR Phase II: Bringing Technological Edge to the Warfighter.” Though it is too soon to fully assess commercialization results—most CPP activities have not completely deployed or had the opportunity to impact their entire technology opportunity space—CPP functions appear to be designed well and preliminary findings are promising, with initial commercialization rates higher than broader project pools.

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## **1.0. SUMMARY OF COMMERCIALIZATION PILOT PROGRAM (CPP) AUTHORIZATION**

The Department of Defense (DoD) Commercial Pilot Program (CPP) is an initiative authorized by section 252 of the National Defense Authorization Act for Fiscal Year 2006 (FY06), Public Law No. 109-163 (NDAA), which contained several provisions regarding the Small Business Innovation Research (SBIR) program. Section 252 amended section 9 of the Small Business Act (15 U.S.C. 638) to add a new subsection 9(y), that authorizes the Secretary of Defense and the Secretary of each Military Department (MILDEP) to create and administer a CPP. To fund the administrative cost of the pilot programs, section 9(y) authorizes use of up to an amount equal to 1% of the SBIR set-aside budget. These funds may not be used to make Phase III awards. The pilot program is authorized through FY09.

The purpose of the Commercialization Pilot Program is to accelerate the transition of technologies, products, and services developed under SBIR to Phase III and into the acquisition process. In carrying out the CPP, the Secretary of Defense and the Secretary of each Military Department are required to identify SBIR research programs that have the potential to transition rapidly to Phase III and into the acquisition process. The Secretary of the Military Department concerned must certify in writing that, with respect to the selected programs, the successful transition of the program to Phase III and into the acquisition process is expected to meet high priority military requirements of the MILDEP.

The Secretary of Defense is required to submit an evaluative report regarding activities under the Commercialization Pilot Program to the Committee on Armed Services and the Committee on Small Business Entrepreneurship of the U. S. Senate, and the Committee on Armed Services and the Committee on Small Business of the U. S. House of Representatives at the end of each fiscal year. The report is to include:

- An accounting of the funds used in the CPP;
- A detailed description of the CPP, including incentives and activities undertaken by acquisition program managers, program executive officers and prime contractors; and,
- A detailed compilation of results achieved by the CPP, including the number of small business concerns assisted and the number of projects commercialized.

## **2.0 BACKGROUND: SBIR IN THE DEPARTMENT OF DEFENSE**

Congress enacted the Small Business Innovation Development Act of 1982 (P.L. 97-219), establishing the SBIR Program. Stemming from studies indicating small high-technology businesses are cost-effective performers of research and development and are particularly capable of turning research and development (R&D) into new and helpful products and processes, the statute strengthened the role of small businesses in Federally-funded research and development. In passing the 1982 Act, Congress wrote that it found that technological innovation creates jobs, increases productivity, competition and economic growth, and while small businesses are the nation's principal source of significant innovation, the vast majority of Federally-funded R&D had been conducted by large businesses, universities, and government laboratories.

The SBIR Program is a government-wide program overseen by the Small Business Administration (SBA). Under the Act, each federal agency with an extramural budget for research or research and development (R/R&D) in excess of \$100 million for FY82 or thereafter must establish an SBIR Program. Currently, the Department of Defense and 10 other federal agencies within the U. S. government are required to have an SBIR program. Within the Department of Defense, 12 DoD Components participate in SBIR program: the Army, Navy, Air Force, and through the broader DoD Program, Defense Advanced Research Projects Agency (DARPA), Missile Defense Agency (MDA), Defense Threat Reduction Agency (DTRA), U.S. Special Operations Command (SOCOM), Joint Science and Technology Office of Chemical and Biological Defense (CBD), Office of the Secretary of Defense (through the Director, Defense Research & Engineering), National Geospatial Intelligence Agency (NGA), Defense Microelectronics Activity (DMEA), and Defense Logistics Agency (DLA). NGA is a voluntary participant. Program oversight is provided by the Office of the Under Secretary of Defense for Acquisition, Technology & Logistics, Office of Small Business Programs.

Within the Department, the SBIR Program is a tool to help drive capability to defeat any adversary on any battlefield. It contributes to this vision by funding focused technology development and cultivating a capacity for materiel innovation in the defense industrial base to meet current and future warfighter needs. As such, SBIR is a tool to enable strategic and tactical acquisition excellence as a source of innovative solutions to enhance capabilities and reduce technical risk throughout the system acquisition lifecycle.

## **3.0. FISCAL YEAR 2007 CPP IMPLEMENTATION**

This section is composed of separate subsections for the Army, Navy, Air Force and other DoD Components. It reports CPP funds set aside and used, characterizes CPP activities, and describes results to date and anticipated results. Section 9(y) of the Small Business Act allows the broad implementation of CPP authority throughout the DoD SBIR Program, in addition to the programs within Military Departments. Initial Department implementation focused on establishing robust programs among the Military Departments, which constitute over 75% of the DoD SBIR program by budget, and likewise control a large majority of DoD Research Development, Test and Evaluation (RDT&E) funding. The Department anticipates



wider implementation of CPP authority among other DoD Components participating in the SBIR Program in FY08. Note that since CPP funding is drawn from RDT&E appropriations, it is two-year money. Therefore, FY07 funding not otherwise programmed or obligated is available through September 30, 2008.

Since P.L. 109-163 was signed in January 2006, the Office of the Secretary of Defense and the Military Departments have taken a number of actions to create and implement the Commercialization Pilot Program. Military Department and DoD Component CPP activities are described in detail in the following sections, while Department-level CPP guidance and activities are summarized below:

- On June 27, 2006, the USD(AT&L) issued a memorandum to the Secretary of each Military Department, providing guidance on the Commercialization Pilot Program and requesting they conduct a portfolio review of recent SBIR Phase II projects to identify technologies with the greatest potential to meet known needs of programs of record. It stressed linking the science and technology and acquisition communities effectively and seeking high-potential cross-cutting technologies that serve joint technology needs.
- Also in July 2006, the Department established a temporary staff augmentation position of CPP Coordinator within the Office of Small Business Programs, to oversee and integrate all CPP activities. The position was staffed through August 2007, supported by the Naval Air Systems Command.
- Through the Comprehensive Subcontracting Plan Test Program, the Department requested during plan negotiations in September 2006 that participating prime contractors provide descriptions of how they leverage the SBIR Program and data characterizing the extent of this activity. Bell Helicopter, Boeing, General Dynamics, Lockheed Martin, Northrop Grumman Electronic Systems, Northrop Grumman Integrated Systems and Raytheon all discussed initiatives underway to utilize the SBIR Program, and some reported different types of involvement in specific projects. However, none reported comprehensive data characterizing the extent of SBIR-derived/Phase III contract activity.
- In January 2007, the Department developed and implemented a CPP data collection module that was added to the DoD SBIR/STTR Program Management System. Data requirements and elements were identified by a CPP working group comprised of CPP representatives from the Army, Navy, Air Force, OSD, DARPA and MDA. Refer to Appendix D for a listing of data elements established for the Commercialization Pilot Program Database. These data elements were developed to compliment core commercialization data already collected in the DoD SBIR/STTR Program Management System. This data has been collected since 2000. It is used to generate Company Commercialization Reports and calculate the Commercialization Achievement Index (CAI) for all participating firms with at least four Phase II contracts.

- On July 12, 2007, the USD (AT&L) issued a memorandum to the Director of each of the remaining DoD Components participating in the SBIR Program, extending CPP authority and encouraging development of such a program customized to meet each Component's requirements. The memorandum emphasized ensuring that the SBIR Program is generating and funding the right projects, employing the right incentives, and leveraging all available technology development and transition tools and mechanisms.
- The Department provided support to the National Defense Industrial Association (NDIA)-sponsored "Beyond SBIR Phase II: Bringing Technological Edge to the Warfighter" Conference in August 2007. This conference brought together stakeholders in the technology transition process—including recent SBIR Phase II contract awardees, large business concerns, and government acquisition community and science and technology representatives—to increase awareness of market opportunities created by SBIR investments and facilitate the development of relationships necessary to enable technology transition. The Department plans to host a similar cornerstone SBIR technology commercialization event annually going forward.
- OUSD(AT&L) provided a live webcast from the Defense Acquisition University (DAU) on November 14, 2007, to over 700 viewers from across the Department and industry. The focus of the webcast was to increase awareness of the SBIR Program and also describe how to utilize SBIR as a tool across the acquisition program lifecycle for leap-ahead capability or enabling technology development to tap innovation and address program needs. The webcast is available for viewing at DAU website ([www.dau.mil](http://www.dau.mil)).
- The Department is also developing changes to DoD Instruction 5000.2, "Operation of the Defense Acquisition System," and the Defense Acquisition Guidebook. Enhancements relative to the SBIR Program will clarify the responsibility of acquisition managers to use the SBIR Program as a source of technology solutions and provide guidance on how to effectively engage the SBIR Program in both technology and acquisition planning.

Described below are CPP accomplishments of each MILDEP for FY07 and planned activities for FY08. Supplemental DoD-wide CPP assessment is presented in Section 4.0. In FY07, each MILDEP further defined and implemented CPP efforts begun in FY06. While the other DoD Components did not utilize the CPP authority, some have ongoing commercialization assistance efforts within their agency.

### 3.1. ARMY

#### a. Army CPP Funding

SBIR FY 06 Budget	CPP FY06 Budget	SBIR FY07 budget	CPP FY07 Budget
\$243M	<b>\$2.43M</b>	\$243M	<b>\$2.43M</b>

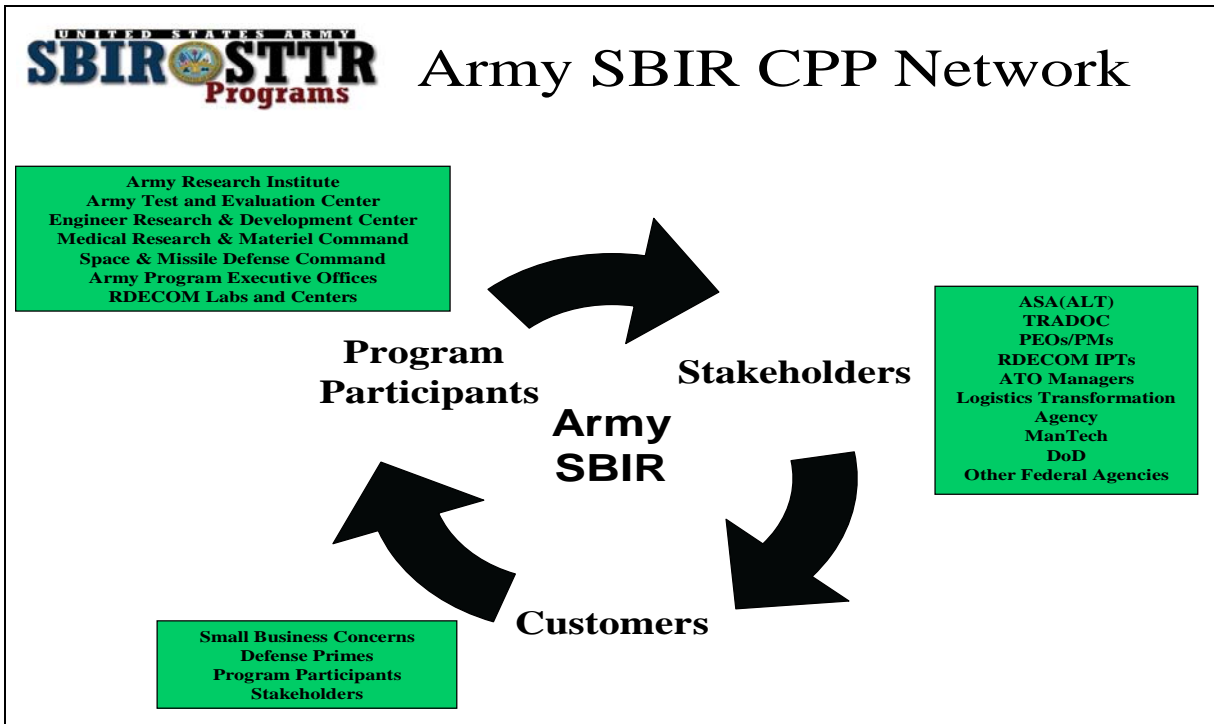
The Army CPP budget in FY06 was \$2.43 million (1% of the total Army FY06 SBIR budget of \$243M). These funds were fully obligated in FY07 with approximately \$2.3 million allocated for contracted support services with MILCOM Venture Partners (MILCOM) for Technology Transition Management, and the remaining \$0.1 million for other CPP administrative activities, including solicitation, award, and administration of the above contract.

The Army CPP budget for FY07 was also \$2.43M and will be obligated in FY08. The Army set aside \$15 million of SBIR funding in FY07 to establish an investment fund targeted to enhance ongoing Phase II activities with expanded research, development, test and evaluation to accelerate transition. These funds will also be obligated in FY08. Additionally, the Army will encourage its CPP vendor with an incentive award based on performance indicated by the total sales and outside investments obtained by participating CPP companies to facilitate the acquisition of third-party (non-SBIR) funding for each participating SBIR company. Third-party funding may include (1) additional investments in activities that further the development and/or commercialization of the technology; (2) private sector and/or non-SBIR government funding to develop the prototype into a viable product or service for sale; (3) cash revenue from the Government or private sales of the specific technology and/or spin-off technology; and (4) venture capital investment.

#### b. Army CPP Description and Activities:

The objective of the Army CPP is to increase Army SBIR technology transition and commercialization success and accelerate the fielding of capabilities to Soldiers by:

- assessing and identifying SBIR projects and companies with high transition potential that meet high priority requirements;
- providing market research and business plan development;
- matching SBIR companies to customers and facilitating collaboration;
- preparing detailed technology transition plans and agreements;
- providing additional funding for select SBIR projects; and,
- applying metrics and measuring results.



In addition, the Army is continuing current efforts supporting SBIR commercialization into acquisition programs and conducting expanded outreach, training, and collaboration opportunities for Program Executive Officers (PEOs) and acquisition program managers (PMs). For example, acquisition PMs and PEOs have been actively involved in SBIR/STTR topic selection and management for the past three years, with each PEO and direct reporting PM authorized to develop and manage topics directly.

On May 3, 2007, the Army entered into a potential four-year agreement with MILCOM Venture Partners to assist with: 1) identifying a focused set of ongoing SBIR Phase II participants for inclusion in the CPP and 2) recommending the amount of additional funding from the FY07 \$15 million Investment Fund to support the participants' commercialization plans developed under the CPP. In addition, the Army established Technology Assistance Advocates (TAAs) at five regional areas (National Capital, Southeast, Mid-Atlantic Command and Control, Mid-Atlantic Armaments, and Midwest Regions) to work closely with Army scientists and technologists and SBIR stakeholders at various regions across the Army's participating laboratories and research centers with technology assistance services to businesses engaged in SBIR projects. The objective of this effort is to increase Army SBIR technology transition and commercialization success thereby accelerating the fielding of capabilities to Soldiers and to benefit the nation through stimulated technological innovation, improved manufacturing capability, and increased competition, productivity, and economic growth. This will be accomplished by providing program participants with guidance and assistance with commercialization and transition activities, including assistance with the production of a business plan, a transition plan and matching technologies with potential government and/or industry customers. Projects selected for participation in the CPP will have indicators for the potential for rapid transitioning to Phase III and into the acquisition process and also be expected

to meet high priority Army requirements. Additionally, each project must have the potential for commercial use in the private sector that offers a significant financial return.

To understand each active Army Phase II SBIR project's potential for rapid transition and commercialization, a series of progressive screening processes were conducted to ultimately identify and recommend a limited set of CPP participants. Initial data collection efforts involved development and execution of an electronic Commercialization and Technology Assessment (CTA) questionnaire through the Army's Small Business Web Portal. The CTA contained over 120 questions to assess a firm's likelihood of transition and commercialization success based on factors typically exhibited by successful firms. Contact to all 548 active Phase II projects in July 2007 resulted in a total of 416 (76% of eligible projects) CTAs submitted. Preliminary analysis to identify CPP candidates involved two parallel processes: 1) the CTA analysis that focused on a broad assessment of all eligible firms, and 2) an internal "fast track" that focused on assessing a limited set of initially promising firms for early recommendation based on high priority requirements and capability gaps from various commands. Data analysis was applied to identify over 150 companies for in-depth analysis. Given the high level of CTA participation, a significant amount of data processing and validation took place in the first quarter of FY08 to support the multi-step recommendation process to ultimately recommend 25 projects for the CPP program.

In accordance with the SBIR Reauthorization Act of 2000, Public Law 106-554, amendment of Section 9 of the Small Business Act (15 U.S.C 638), the Army will provide technical assistance services to small businesses engaged in SBIR projects through a network of scientists and engineers engaged in a wide range of technologies. The objective of this effort is to increase Army SBIR technology transition and commercialization success thereby accelerating the fielding of capabilities to Soldiers and to benefit the nation through stimulated technological innovation, improved manufacturing capability, and increased competition, productivity, and economic growth.

As mentioned above, the Army has stationed Technical Assistance Advocates (TAAs) in five regions across the Army to provide technical assistance to small businesses who have Phase I and Phase II projects with the participating organizations within their regions. Each TAA will provide:

1. Expert advice and analysis to Phase I SBIR projects selected annually for the purpose of assisting in: a) making better technical decisions concerning such projects; b) solving technical problems which arise during the conduct of such projects; c) minimizing technical risks associated with such projects; and d) developing and commercializing new commercial products and processes resulting from such projects.
2. Expert advice and analysis to the Government regarding technology transition planning and development of technology integration roadmaps through participation in PEO requirements development, technology assessment, and technology transition planning and management activities, specifically to facilitate the provision of relevant and timely technical advice to supported small business concerns regarding integration of SBIR derived technologies into DoD programs.

3. In coordination with the Government research manager, SBIR award recipient, and any potential stakeholders, Phase III plans for Phase I projects that have been selected for Phase II award. The Phase III plan must document the strategy, requirements, and resources to transition the SBIR project to Phase III and from research into an acquisition program, larger science and technology effort, or stand-alone product or service. The Phase III plan shall include, at a minimum: a) the target program(s), manager(s), or commercial customer(s); b) program technology need(s); c) integration strategy; d) description of technology/product or capability to be delivered; e) current status of technology/product; f) technology development strategy; g) risks to include mitigations and contingencies; h) milestones (key technical measures of readiness) for transition; i) resource requirements and potential sources; and j) methods for furthering promising technologies through additional research, development, testing and evaluation.

c. Army CPP Results:

Through the initial CTA analysis and internal “fast track” process, over 150 eligible SBIR firms were identified and assessed based on reported levels of commercialization and transition potential. The assessment involved calls with the firms, one-on-one meetings, and/or discussions with relevant Army organizations. Through this process to date, 25 firms have been identified and recommended for participation in CPP. All of these firms have recently been approved for participation in the CPP by the Army SBIR Program Manager and the Office of Assistant Secretary of the Army (Acquisition, Logistics and Technology). These 25 projects are projected to receive at least \$15 million in SBIR funding from the Investment Fund, and \$31.4 million from outside sources. [See Appendix A for a complete listing of Army CPP projects.]

**3.2 NAVY**

a. Navy CPP Funding

SBIR FY 06 Budget	CPP FY06 Budget	SBIR FY07 Budget	CPP FY07 Budget
\$310M	<b>\$3.07M</b>	\$311M	<b>\$3.11M</b>

The FY06 Navy CPP budget was apportioned as follows: \$591,064 for CPP management support; \$250,000 for a Tiger Team Study and process improvements; \$140,424 for information technology (IT), web site and database support; \$100,000 for due diligence on candidate firms and projects; \$90,167 for risk management; \$953,114 for firm business and technical assistance (provided through a contract with Dawnbreaker); \$739,071 for PEO/PM technology transition support; and \$206,000 for manufacturing assessments. FY07 CPP funding was not released until July 31, 2007, and is pending obligation. Due to program ramp-up, \$75,000 has been used for manufacturing assessments, and it is anticipated that all remaining funds will be obligated and expended by 2<sup>nd</sup> quarter FY08.

b. Navy CPP Description and Activities:

The goal of the Navy CPP initiative is to accelerate and incentivize the transition of SBIR projects into high priority Navy systems by providing needed assistance to SBIR firms and key technology development and transition stakeholders. Success occurs when the SBIR developed technology is inserted into a product or service to meet an identified Navy/DoD need. During 2007, the Navy SBIR CPP has focused on making two fundamental contributions to the current SBIR program: (1) Determine, define and establish improved and consistent processes that ensure that topics and SBIR awards address high priority Department of Navy requirements and are managed in a way that incentivizes and accelerates insertion into acquisition programs; and (2) Provide the necessary resources and incentives to DoD technology and acquisition managers as well as SBIR firms to ensure transition is not only possible but is the primary focus of all SBIR projects.

FY07 CPP activities included:

- Expanded significantly the CPP project support at the Naval Air Systems Command (NAVAIR), Naval Sea Systems Command (NAVSEA) and Office of Naval Research (ONR).
- Completed a Tiger Team review of the current Navy SBIR process, from topic development to Phase III award to identify best transition practices and obstacles.
- Implemented Navy-wide SBIR CPP called “SBIR Accelerated Transition” (SAT) to explore innovative concepts of operation including: leveraging non-SBIR funds, project selection criteria and process, project tracking, and CPP management; selected and funded an initial group of CPP projects; and SAT SBIR expanded project costs were funded from SBIR and non-SBIR sources.
- Fully staffed a NAVAIR SBIR CPP office, planned in FY2006, which initiated comprehensive CPP activities including review of the NAVAIR SBIR portfolio for CPP candidates, and developed NAVAIR-specific CPP management tools.
- Initiated a program to provide comprehensive technology risk assessments and manufacturing risk assessments to SBIR Phase II firms.
- Designed a Navy-wide SBIR CPP tracking and reporting capability, with emphasis on comprehensive results-focused metrics, and data capture as a process element.
- Endorsed an awards program to incentivize SBIR Technical Points of Contact (TPOCs) and Acquisition PM’s to help fulfill CPP goals.
- Defined and monitored the use of the 1% administrative funds allowing them to be used to fund CPP contract staff and in-house CPP costs only. CPP designated SBIR project costs were funded from the SBIR Program or other non-SBIR sources.
- Developed and used templates for new, short-form Technology Transition Plans/Agreements to document transition requirements including technology benchmarks, timelines and funding requirements, thus expediting transition.
- Engaged PEOs, PMs, and TPOCs in the establishment of new, short-form technology transition plans and agreements.
- Presented briefings on SBIR transition strategies and goals to Chief Technology Officers (CTOs) and PEOs at all SYSCOMs, reaching agreement on need for more/earlier engagement in the SBIR process.

- Worked with the comptroller community establish CPP funds as separate budgetary line item. This was necessary for sub-allocation to the SYSCOM level; however, it delayed release of FY07 Navy CPP funds until July 31, 2007.
- Continued to refine Navy CPP metrics, keeping commercialization and insertion into Navy/DoD systems as the primary measures of success.
- Provided firms assistance in identifying transition opportunities and sponsors.
- Performed due diligence reviews on proposed CPP projects to ensure transition paths and technology improvement efforts were clearly defined and aligned to transition plans/agreements.
- Worked with PEOs/PMs to revise Technology Roadmaps to more clearly identify opportunities for SBIR transitions.
- Employed the assistance of Naval Reservist to assist in documenting and reporting the CPP Transition process.

Navy CPP Incentives employed during FY07 include:

- Made available additional SBIR program funds to bridge gap between Phase II and III through the SAT initiative, based on investment of matching non-SBIR funds.
- Firms designated as CPP participants eligible for additional “free” technical/business assistance to help them transition technology.
- PEOs/PMs participating in CPP received assistance with “due diligence” review of firms and their capabilities (financial, technical, and management).
- Prime contractors should have access to technologies developed by SBIR-funded firms that meet requirements agreed upon in transition plans/agreements.
- Funds provided to reimburse PEOs for CPP program activities including Portfolio Transition Managers at NAVSEA.
- Established pool for providing cash awards (\$2,000 each) to TPOCs who facilitate successful transitions.

c. Reported Navy CPP Results:

A total of 51 SBIR Phase II projects were designated by NAVAIR, NAVSEA, SPAWAR, MARCOR, and ONR in FY07 for the Navy CPP initiative. See Appendix B for a listing of Navy CPP projects. Thirty-six of 51 CPP projects have signed Technology Transition Plans/Agreements; six received Phase III contract awards during FY07; six have completed comprehensive Technology Transition Risk Assessments; and six have completed comprehensive Manufacturing Readiness Assessments (a total of 15 projects).

Other accomplishments to date include:

- A comprehensive study of Navy SBIR process was completed with 112 best practices and 59 roadblocks identified. Navy SBIR process surveys were completed by 165 SBIR awardees, 149 TPOCs and 37 Prime Contractor agents.
- Navy CPP manager hired to coordinate program across SYSCOMs.
- SBIR Accelerated Transition (SAT) initiative completed, which resulted in the selection of 35 projects and the attraction of \$30,399,000 of non-SBIR funds to match \$43,919,060 SBIR funds.



### 3.3 AIR FORCE

a. Air Force CPP Funding

SBIR FY 06 Budget	CPP FY06 Budget	SBIR FY07 Budget	CPP FY07 Budget
\$313M	<b>\$2.96M</b>	\$328M	<b>\$3.28M</b>

FY06 CPP funds (\$2,960,118) were obligated on a Transition Support Contract to MacAulay Brown, Inc. (Mac-B) from September 2006 through September 2007. FY07 CPP funds (\$3,282,478) were fully obligated through an option to continue this support contract through September 2008.

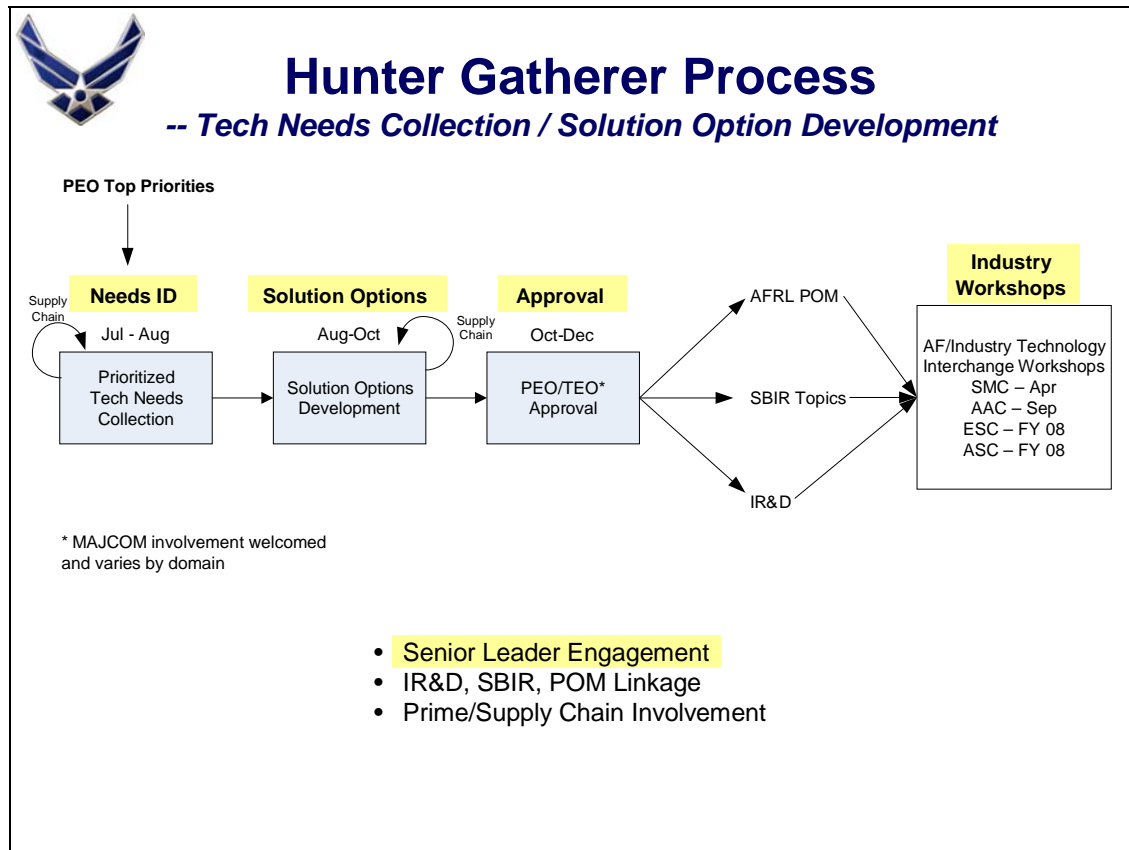
b. Air Force CPP Description and Activities:

The Air Force is implementing a new, strategically-driven process that directly links PEO representatives to Air Force Research Laboratory (AFRL) TPOCs to generate topics that are of high interest to Air Force Product Centers. While this technology-based needs-gathering process is ongoing, successful implementation of this process occurred during FY06 and FY07. The process translates Air Force Product Center capability-driven technology needs into SBIR topics with the help of CPP “Transition Agents.” Thus, SBIR topic development now uses a focusing strategy to optimize use of SBIR funds.

A second and equally important approach connects Product Center prime and major supply chain contractors with DoD SBIR Phase II award recipients working in technology areas relevant to the Product Center’s needs list via a matchmaking process. Industry selects from a list of SBIR Phase II projects those small businesses they want to interview based on areas of mutual interest. The Air Force then invites the companies identified by industry to participate in focused PEO Industry Days/Workshops. This “Match.com®” approach produced over 220 one-on-one sessions among SBIR-funded small businesses and prime and supply chain contractors between the first two Air Force-facilitated workshops in FY07 conducted at the Space and Missile Systems Center (SMC) and the Air Armaments Center (AAC). Over 120 follow-up meetings were scheduled.

Within a month following each Industry Day/Workshop event, Air Force Transition Agents contacted all participating supply chain contractors to identify which small businesses were selected as a potential partner. Upon confirming a new teaming arrangement, transition agents re-engaged with the corresponding Air Force Product Center that initiated the need and the TPOC that manages the SBIR project. At this point, all stakeholders entered into an agreement titled the SBIR Technology Transition Plan (STTP), which identifies the roles and responsibilities, as well as assistance required by the small business to achieve a Phase III project. Transition Agents identify which DoD assistance instruments are most likely to benefit the small businesses and enable transition. In addition, the Transition Agents help the firms engage the identified assistance programs and understand what is involved with the relevant application processes.

There are key aspects of the needs-gathering process worth noting: (1) The process starts and finishes with high-level strategy and approval sessions among Air Force senior leadership; (2) The Product Center’s supply chain contractors are involved throughout the process. They are the ultimate receptors of the technology in most cases, and it is imperative that they provide insight into areas that need technological innovation; and (3) Lastly, the design of the process instills collaboration with respect to the generation of SBIR topics.



**Figure: Air Force PEO Technology Based Needs Gathering Process**  
 -- A Tailored Process Leveraging the Strengths of each AF Product Center

The process depicted in the figure above is occurring at each of the four Air Force Product Centers responsible for acquisition programs: the Space and Missile Systems Center (SMC) at Los Angeles Air Force Base, CA; the Aeronautical Systems Center (ASC) at Wright-Patterson AFB, OH; the Electronic Systems Center (ESC) at Hanscom AFB, MA; and the Air Armament Center (AAC) at Eglin AFB, FL. In addition to these Product Centers, the Joint Strike Fighter (JSF) and F-22 Raptor programs are participating in this process with AFRL. Mac-B provides on-site CPP support at each of the four Product Centers and both JSF and F-22 Program Offices. Specifically, the Transition Agents assist government personnel with topic generation, coordinate with supply chain contractors, develop strategic guidance of the topics, track and record successful transition into acquisition programs, identify high payoff Phase II projects and provide other general support. Transition Agents are highly knowledgeable and skilled in systems engineering in the product center domains.

As part of the strategic focusing activity to date, the Air Force identified and accelerated a few critical Phase II programs of high importance to the PMs and PEOs. These accelerated Phase II programs, called Phase II Extensions, receive additional funding. These contracts include gated options and the Program Offices participate in the “go/no go” decision at each gate. Phase II Extension candidates are required to get the Program Executive Officer’s endorsement indicating that successful transition of this program into the acquisition process is expected to meet high priority military requirements.

c. Air Force CPP Results:

The Air Force identified a total of nine CPP projects to date. See Appendix C for a listing of Air Force CPP projects.

### **3.4. OTHER DOD COMPONENTS**

Among the remaining DoD Components participating in the SBIR Program, the Missile Defense Agency (MDA) and the Joint Science and Technology Office for Chemical and Biological Defense (JSTO-CBD) have plans to utilize CPP authority in FY08.

a. Missile Defense Agency (MDA):

MDA has several programs in place to achieve the desired program goal of accelerating transition of technologies, products and services into systems being developed, acquired and maintained for the warfighter. The Technology Applications Program, administered by the National Technology Transfer Center (NTTC), assists many small U.S. businesses and universities to commercialize their MDA-funded technology, including SBIR/STTR projects. MDA has a rigorous process to generate topics and select SBIR/STTR awards in support of the Ballistic Missile Defense System (BMDS). MDA also has a Transition (Phase II Enhancement) Program through which additional SBIR funding is added to Phase II technology development programs identified as having the highest potential for transition to enhance ballistic missile defense capability. As MDA formulates its plans for a formal CPP, these programs will likely be expanded and will continue to leverage all available technology development and transition tools.

b. The Joint Science & Technology Office for Chemical and Biological Defense (JSTO-CBD):

Although the JSTO-CBD (CBD for short) SBIR Program is relatively small with a current annual budget of less than \$10 million, participation in the CPP is expected to maximize the opportunity for transition of technologies developed by small businesses during the Phase II contract period of performance. The CBD SBIR Program is a unique joint Services program. CBD plans to leverage Army CPP support contractor efforts to identify CBD SBIR Phase II projects possessing key interest to the Army, in its Chemical and Biological Defense Program Executive Agent role, and with a high probability of rapidly transitioning to operational Army units and the commercial marketplace.

#### 4.0. SUPPLEMENTAL EVALUATION

DoD-wide CPP measures are collected through the DoD SBIR/STTR Submission System, the central repository for all DoD SBIR/STTR-related data. In January 2007, a CPP data collection module was added to this system to supplement commercialization data which has been collected since 2000. The data elements of the new CPP module are listed in Appendix D. While commercialization data records are available for all identified projects, supplemental CPP data is very limited. At this time, the 25 Army CPP projects were not yet entered into the DoD system having been recently selected; only 26% of the Navy projects were in the CPP database, and all nine Air Force projects were reported. Many of the projects were selected for CPP late in FY07, leaving very little time for CPP-related activities to have a significant impact on project commercialization. However, commercialization data and supplemental CPP data collected to date is used to provide some of the preliminary observations below. As the programs mature, databases become more fully populated, and additional time allows for CPP activities to have a more complete impact on candidate projects, more comprehensive and definitive analysis will be possible.

Preliminary findings and results follow:

- a. Preliminary commercialization rates are high among Component CPP candidates.** The Army, Air Force and Navy CPP projects all reflect initial commercialization rates in excess of the broader pool of Phase II projects of similar duration.<sup>1</sup> The average time elapsed from Phase II award to the end of 2007 for each pool of CPP candidates was 2.1 years for the Air Force, 2.0 years for the Army, and 3.1 years for the Navy. Comparable award year groups were established to closely match average CPP candidate duration. Comparison among Components is not appropriate due to the variation among average CPP project durations and comparison groups.

DoD Component	% Projects with any Commercialization	% of Projects with Defense Commercialization	Comparable Phase II Award Year Group(s)	Years Represent % of CPP projects
Air Force - CPP	33%	22%		
Air Force - Total	23%	11%	2005-2006	78%
Army - CPP	36%	24%		
Army - Total	19%	10%	2006	72%
Navy - CPP	65%	59%		
Navy - Total	36%	24%	2004-2005	67%

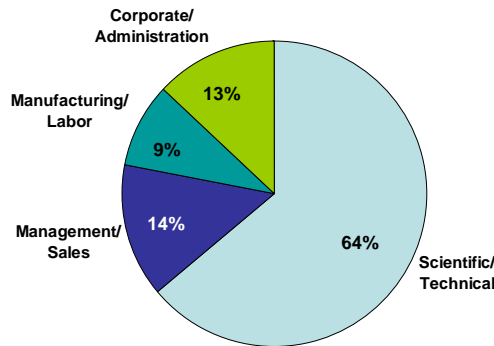
- b. The Phase II Enhancement Program is a source of many CPP candidates.** Through the Phase II Enhancement Program, the Components offer SBIR projects the

<sup>1</sup> Commercialization reflects all derivative market activity and includes any sales, additional research, development test and evaluation funding, and any other source of revenue or capital investment that derives from, extends or logically concludes work begun under prior SBIR efforts.

opportunity to obtain additional SBIR funding beyond Phase II for projects that attract qualifying funds from outside sources, such as system program offices. Most FY07 CPP projects reporting in the CPP Database within the DoD SBIR/STTR Submission System were also Phase II Enhancement projects. This shows that risk sharing in the technology development and transition process is associated with identified transition opportunities.

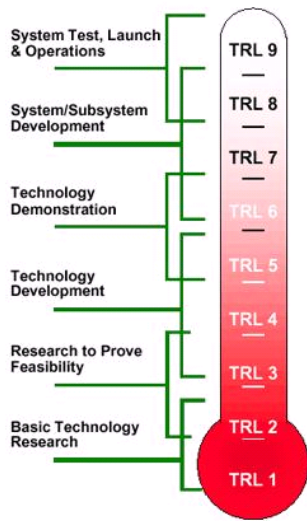
- c. **CPP candidates are predominantly active SBIR projects.** In general, projects are selected for CPP during the second year of their Phase II effort or shortly after Phase II contract completion. A typical Phase II project has a two-year period of performance, which may be extended an additional year if in the Phase II Enhancement Program. Current data shows the following averages from Phase II award start date to CPP start date: Army -- 24 months, Navy -- 30 months, and Air Force -- 17 months.
- d. **CPP firms are composed predominantly of scientific/technical staff.** Small businesses with CPP projects are asked to report the composition of their workforce in the following categories: scientific/technical personnel, corporate/administration, management and sales, and manufacturing.

### CPP Company Composition\*

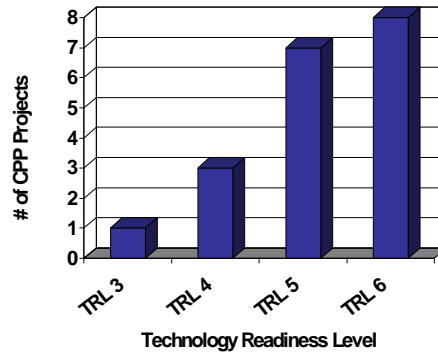


\*Source: Average of Navy and Air Force projects reporting results in the DoD CPP Database, as captured in November 2007.

- e. **Candidate projects are largely near a transition-ready maturity level.** Technology Readiness Levels (TRL) systematically measure the technology maturity. It provides a consistent comparison of maturity between different types of technologies prior to incorporating the technology into a system or subsystem. Generally speaking, when a new technology enters the SBIR program, it is not suitable for immediate product application. Through research and development in Phases II and III, new technologies are subject to experimentation, refinement, and testing. Not until a technology reaches TRL 6 or 7—prototype demonstration in a relevant or operational environment—it is ready for transition to acquisition sponsorship for system/subsystem development.



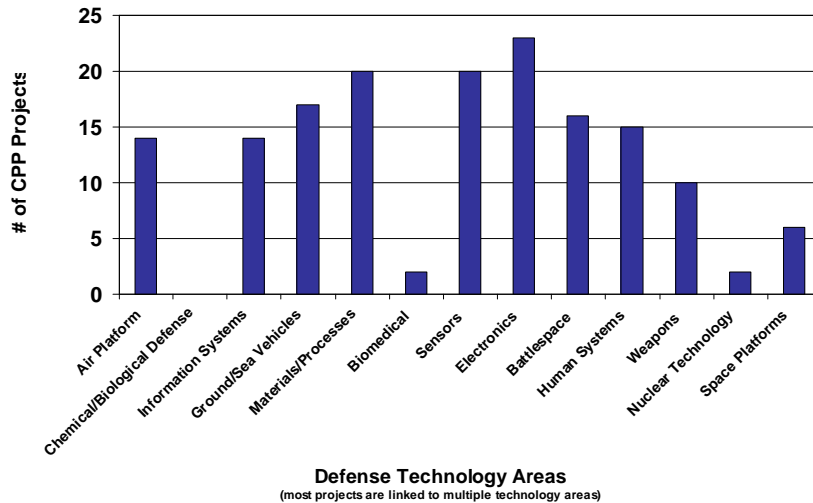
### CPP Project Technology Status\* upon entering the program



\*Source: Navy and Air Force projects reporting results in the DoD CPP Database, as captured in November 2007.

f. **CPP projects encompass all major technology areas.** All DoD SBIR topics and awards must align with one or more DoD key technology areas. Below is a snapshot of the technology areas represented by CPP projects.

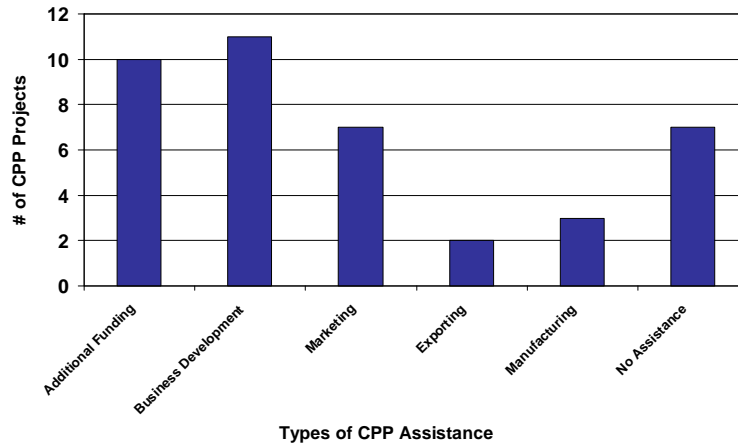
### CPP Projects by Technology Area\*



\*Source: Projects reporting results in the DoD CPP Database, as captured in November 2007.

g. **Participating firms initially are receiving a wide range of assistance.** The CPP allows a broad range of technology assistance activities and each Service offers a variety of different services. Below is a look at the type of assistance CPP firms reported to have received. Of those projects that have received assistance to date, most assistance was in business development, additional funding, and marketing services.

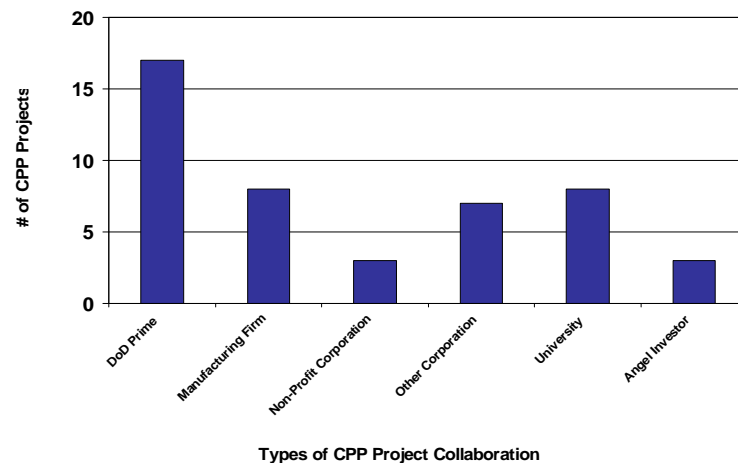
## CPP Assistance Received\*



\*Source: Projects reporting results in the DoD CPP Database, as captured in November 2007.

- h. Collaboration is a key element of CPP activities.** Developing an innovative idea to a viable technology and commercial product is a team effort, most often involving a variety of different players. Preliminary data indicates that DoD prime contractors were the main source of collaboration for FY07 Navy CPP projects while the Air Force CPP project mostly collaborated with manufacturing firms and universities.

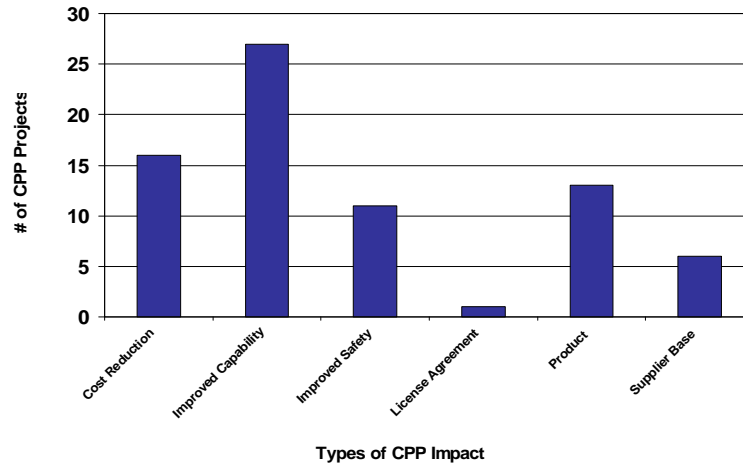
## CPP Project Collaboration\*



\*Source: Projects reporting results in the DoD CPP Database, as captured in November 2007.

- i. CPP projects are bringing value to the Department in a variety of ways.** CPP data captures six broad categories of project impact, shown below. Most Navy and Air Force CPP projects anticipate an improved capability, cost reduction or improved safety as a result of the SBIR technology.

## CPP Project Impact\*



\*Source: Projects reporting results in the DoD CPP Database, as captured in November 2007.

### 5.0. CONCLUSIONS

The Department of Defense is undertaking a wide range of activities to address the requirements and intent of the CPP and improve the broader SBIR Program, both across DoD and within the Military Departments. These initiatives encompass outreach and training, acquisition guidelines relative to SBIR, topic generation focused on transition to acquisition programs, data collection and analysis, and a breath of technology assistance services. Implementation of the CPP in FY07 focused on initial evaluation of plans set forth in FY06 by the MILDEPs, which constitute over 75% of the DoD SBIR program by budget. The CPP implementation approaches among the Military Departments vary with regard to how SBIR projects with rapid transition potential are identified and selected, and what type of assistance will be provided to accelerate technology commercialization. Though it is too soon to assess commercialization results as most CPP activities have not completely deployed or had the opportunity to impact their entire technology opportunity space, CPP activities appear to be designed well and preliminary findings are promising. FY08 will be a critical year as the Army, Navy and Air Force programs are fully implemented, databases are refined and populated, and additional DoD Component initiatives begin.



## Appendix A – Army SBIR Projects Approved for Participation in CPP

Firm Name	Title	Investor, Customer or Fielded Acquisition System	Year
Advanced Technologies Group, Inc.	A Non-Contacting Compliant Seal for Improved Turbine Engine Performance	Pratt & Whitney /Honeywell - Versatile Affordable Advanced Turbine Engines Initiative; AATD/OEM General Electric for T700 Engine	2007
Agile RF	Reduced Size, Weight and Power Consumption for SATCOM Antennas	PM WIN-T	2007
Chatten Associates	Soldier Universal Robot Controller	ARDEC-EOD; NAVEOD	2007
Chesapeake PERL, Inc.	Improved Protein Manufacturing in Insect Expression Systems	Walter Reed; Army Medical Research Institute of Chemical Defense	2007
Cleveland Medical Devices, Inc	Ambulatory, Miniaturized, Automatic EEG Seizure Detector	JPEO-CBD for Army Force Health Protection Initiative	2007
Coherent Logix, Incorporated	Multi-Chip Modules for Hyperspectral Image Processing (MCM-HIP)	PEO Soldier	2007
Datatek Applications, Inc.	Mobile IPv6 in a Low Bandwidth Tactical Environment	PM CHS	2007
Fairchild Imaging	Solid State Camera for Low Light Night Vision	NVESD; Long Range Army Scout; Common Sensor Payload; Monitoring towers in theater for Force Protection	2007
Forterra Systems, Inc.	Medical Simulation Training for First Response to Chemical, Biological, Radiological, Nuclear Events	MEDCOM; PEO STRI	2007
Greenlees Filter, LLC	Active Acoustic Cleaning System for Engine Air Intake Filters	PM HMMWV; AM General	2007
Hi-Z Technology, Inc.	Development of An Underarmor 10 Kilowatt Thermoelectric Generator Waste Heat Recovery System for Military Vehicles	Bradley and Stryker Fighting Vehicles	2007
Infinia Corporation	Lightweight Stirling Power System for Mobile Tactical Power	CERDEC Def Challenge Program, PM MEP Sponsored AMMPS (Advanced Medium Mobile Power Souses), STEP (Small Tactical Electrical Power System)	2007

Innosys	Solid State Vacuum Device for W-band Power Amplification	AMCOM/Sierra Nevada Corp. for Army Helicopter Autonomous Landing System (HALS)	2007
Innovative Power Solutions, LLC	High Power Density Electric Generator for Army Rotorcraft	PEO Aviation; Boeing/PMO Apache	2007
Innovative Wireless Technologies (IWT)	Innovative Methods for Geolocation and Communication with Ultra-Wideband Mobile Radio Networks	ARDEC; Special Operations & Logistics Center Intelligence & Information Systems; CERDEC; DOE; DHS	2007
Intelligent Automation Corporation	Regime Recognition System	US Army 160th Special Ops Aviation Regiment; MH-47 Chinook; MH-60 BlackHawk; MH-6J Little Bird	2007
Kutta Consulting, Inc.	Bi-Directional Remote Video Terminal for Unmanned Air Vehicle	PM UAS	2007
L-3 Communications Nova Engineering, Inc.	Handheld Emission Detector (HED)	Natick; PEO Soldier	2007
M Cubed Technologies, Inc	Next Generation Body Armor Plates	Armor Holdings, Inc./BAE Systems; PEO Soldier	2007
Microchip Biotechnologies Inc.	Microfluidic Chip for Identification of Biological Agents	CERDEC; PM-MEP (AMMPS); PM-MEP (STEP)	2007
San Diego Research Center, Inc.	Self-Organizing, Energy Efficient, Scalable and Cost-Effective Wireless Backbone to Monitor and Administer Large Remote DoD Acreage	PM Military Ranges and Lands; Army Environmental Center, Integrated Training Area Management	2007
Scalable Network Technologies, Inc.	Scalable, Multi-Paradigm Modeling Framework for Accurate Analysis of Large, Next Generation Networks	PM FCS BCT M&S	2007
Sound Innovations Incorporated	Active Noise Reduction Earplug	Modular Aircrew Common Helmet	2007
Systems & Processes Engineering Corporation	Wideband High Fidelity DRFM (HIFID)	ARL	2007
Think-A-Move, Ltd.	Earpiece-Sensor Voice Recognition Technology	iRobot - FCS SUGV Program	2007

## Appendix B – Navy SBIR Projects Approved for Participation in CPP

Firm Name	Project	Investor, Customer, or Fielded Acquisition System	Year
3 Phoenix, Inc.	Real Time Data Fusion	VA Class Subs and CVN	2007
Aechelon Technology	Modeling and Simulation Technology for Night Vision Goggle Mission Rehearsal	V-22	2007
Aculight	Compact High Efficiency, Eye-Safe, Fiber Laser for LADAR Applications	Tomahawk All-Up-Round	2007
Adaptive Technologies	Maintainer Head and Hearing Protection	Aircrew Systems JSF	2007
Advanced Ceramics Research	IED Wire Detection from UAV Mounted Gradiometer	UAV, Counter-IED	2007
ASSETT, LLC	Velocity Sensing Sonar (VSS)	Advanced Seal Delivery System	2007
Binghamton Simulator Company, Inc.	Virtual Aircrew Training	Aviation Training Systems MH-60	2007
Btech Acoustics, LLC	Acoustic Modem with Broadband Single Crystal Transducer and Directional Capabilities	Unmanned Undersea Vehicle Programs	2007
Coherent Logix Inc.	Parallel Processing Chip for Reduced Power Requirements	Joint Tactical Radio System	2007
Communication & Ear Protection, Inc.	Passive Noise Reduction for Pilot and Deck Crew Helmet Mounted Systems	Aircrew Systems JSF	2007
Dynamet Technology, Inc.	Development of Low Cost Titanium Alloy Feedstock for Casting of Net Shape Combat Vehicle Components	Expeditionary Fighting Vehicle	2007
Eddy Company	An Affordable Silicon Based Visible/Near Infrared Missile Warning System	Various Low Altitude Air Platforms	2007
Equinox Corporation	Sensor for Simultaneous Movement and Directed Weapons Fire in all Light Conditions	Helmet Mounted Display	2007
Fluorochem, Inc.	Synthesis of Energetic Prepolymers of carrying BAMO and NMMO or PGN Content and Structure	Zuni Rocket Motor Program	2007
Geneva Aerospace, Inc	Advanced Ship/Fixed-Wing UAV Recovery Interface	UAVs	2006
H.C. Materials Corporation	Accelerated Transition of Single Crystal Projectors	ADC Mk2/Next Generation Torpedo Countermeasure	2007
Harmonia, Inc	Using UIML to Automate Generation of Usability Prototypes and Tactical Software	Tomahawk Weapons System	2006
Hontek Corporation	Innovative Erosion Resistant Coating for Leading Edges of V-22 Rotor Blades	V-22	2006
Impact Technologies, LLC	Incipient Fault-to-Failure Progression Models and Software for Drive Train Clutch Systems	JSF	2007
Innovative Defense Technology	Automated Test and Re-Test (ATRT)	Single Integrated Air Picture Program	2007

InterScience, Inc.	The CRISSTL Ball – Handheld Periscope	Special Operations - Situational Awareness	2007
MagCanica, Inc	Innovative Gas Turbine Propulsion	V-22	2007
Management Sciences, Inc.	Digital Data Download with Crash Survivable Memory	AV-8B Weapons Systems	2007
Material Sytems, Inc.	Low Cost Broadband MK54 Torpedo Array	MK54 Torpedo	2007
Materials Sciences Corporation	Low Cost Sonar Window Materials	SQS-53C Sonar Dome	2007
Mathtech	Digital Wireless/Copper Data Bus Combination for E-2C Intercommunications System Applications	E-2/ATDS	2007
Menon and Associates, Inc	Detection of Foreign Materials in Uncured Hand Lay-up Composites	V-22, JSF	2006
Michigan Aerospace	LCS Launch & Recovery System	LCS	2007
Mide Technology	Smart Hydrogel Shaft Seal	LCS	2007
Nanosyntex	Non-Woven Textile Technologies	Combat Utility Uniforms	2007
Out of the Fog Research	Advanced Wide-Band RF Distribution System	SPS-49 Radar	2007
Pathfinder Systems, Inc.	Prototype Aircrew Virtual Environment Trainer	Aviation Training Systems MH-60	2007
Physical Optics Corporation	Flight Autonomous Event Recorder Information Technology Digital Data Download	Naval Undergraduate Jet Flight Training Systems	2007
Physical Sciences	Stern Recovery System	LCS, DD(X), CG(X)	2007
Plasma Sciences	Electromagnetic Pulse Protection for Distributed Shipboard Transducer-Bus Networks	All new and legacy ships	2007
Precision Combustion Inc	High Density Modular Fuel Cell Reformer	Integrated Power System and All-Electric Ship Programs	2007
Progeny Systems	Reduced Manning Support	VA Class Submarines	2007
Real-Time Analyzers	Portable Raman Instrument for Fuel Characterization	Unit Level Fieldable Device (especially USMC and SPECOPS)	2007
Reliable System Services Corp.	UAV Based Network-Centric Communications for Sensors	LCS	2007
RLW	Machinery Health Monitoring for Shipyard Productivity	Navy Shipbuilding and Repair Programs	2006
Scientific Solutions, Inc.	Swimmer Detection Sonar Network	Port and Ship Self-Defense	2007
Scientific Systems	Application of Genetic Algorithm Technology to Route Planning	Tomahawk Weapons Systems	2007
Sensing Systems	A Software Tool for Improved Digital MI Handling	UAVs	2007
Sensis Corporation	Multi-Band Air Defense/Air Search Radar	Highly Expeditionary Long Range Air Surveillance Radar	2007
Solid State Scientific Corporation	Spectral Temporal Sensor for Point Target Identification of Hostile Fire	Advanced Tactical Aircraft Electronic Warfare JSF	2007
Speech Gear, Inc.	Pocketable Language Translation System for Use in Noisy Environments	SEQUOYAH-Handheld Language Translation	2007
The Consulting Network,	Open Architecture Concepts	Navy Logistics	2007

Inc.		Productivity Program	
Triverus, LLC	Flight Hangar / Deck Cleaner	Mobile Cleaning, Recovery, and Recycle System	2007
TRS Ceramics, Inc.	Single Crystal Piezoelectric Tonpiz Elements for Small Footprint, High Power Acoustic Sensors	Common Very Lightweight Torpedo	2007
WaveBand Corporation	Electronically Controlled Beamformer Based on Reconfigurable Hologram Aperture	Longbow Hellfire Missile, Precision Guided Mortar Munitions, Patriot PAC-3	2007
Weidlinger Associates	Non-Explosive Ship Shock Test	All surface ships	2007

## Appendix C – Air Force SBIR Projects Approved for Participation in CPP

<b>Firm Name</b>	<b>Project</b>	<b>Investor, Customer, or Fielded Acquisition System</b>	<b>Year</b>
Microelectronics Research Development Corporation	Radiation Hardened by Design Structured ASICs for Reliable Digital Components	Space and Missile Systems	2007
Infocitex Corporation	Novel Coverglass System with Enhanced Radiation Resistance	Space and Missile Systems	2007
RT Logic	Programmable Satellite Transceiver	Space and Missile Systems	2007
WINTEC, Incorporated	Legacy Platform Weapons Integration	F-22	2008
Opel	Monolithic Infrared Arrays	Space and Missile Systems	2008
StarVision Technologies, Inc.	Autonomous Aerial Refueling System for Powered Munitions	Powered Munitions	2008
TRITON SYSTEMS, INC.	Cost Effective Composite Wings for Range Extension Kits	Aeronautical System Center	2008
Defense Holdings, Inc.	Improved Propeller De-Icing System	C-130	2008
Sensis Corporation	Multi-Band Air Defense/Air Search Radar	Battle Control System – Mobile	2008

## **Appendix D –Data Collected to Characterize Firms and Projects**

### **Data Elements Established for the Company Commercialization Report**

#### Submitted by the firm:

- Firm Name, Mailing Address, Phone
- Firm Point of Contact, Phone Number, Fax Number, E-mail
- Commercialization Achievement Index
- Number of Phase I Awards
- Number of Phase II Awards
- Number of Patents resulting from SBIR/STTR
- Firm’s Total Revenue
- SBIR/STTR Funding as % of Total Revenue
- Number of Employees
- Current Number of Employees
- Year Founded
- IPO resulting from SBIR/STTR
- Certification by Proposing Company
- Phase II Projects
  - Sales
    - DoD/DoD Primes
    - Other Federal Agencies
    - Export
    - Private Sector
    - Others
    - Third Party (if known)
  - Additional Investment
    - DoD/DoD Primes
    - Other Federal Agencies
    - Private Sector
    - Others
  - Used in Federal system or acquisition program?
  - Phase III contract #
  - Manufacturing-related technology?
  - Technology result in cost savings/avoidance for government or end user?

### **Data Elements Established for the Commercialization Pilot Program Database**

#### Currently Submitted by the firm:

- Agency
- Topic Number
- Phase II Contract Number
- DUNS
- CAGE

- Project Title
- Firm and Mailing Address
- Technical Lead Name, Title, Phone and E-mail
- Corporate Official Name, Title, Phone and E-mail
- Company Size
  - At end of Phase II
  - At end of Enhancement (if applicable)
  - When entered CPP
  - Currently
- Company Composition (enter % of personnel in the following areas)
  - Scientific/Technical
  - Management/Sales
  - Manufacturing/Labor
  - Corporate/Administration
  - Board of Directors
- Business Structure
  - S Corp
  - C Corp
  - LLP
  - Date of Last Business Update
  - Publicly-Owned?

**Data elements established for the Commercialization Pilot Program Database (part of the DoD SBIR/STTR Submission System at [www.dodsbir.net](http://www.dodsbir.net))**

Data currently supplied by the firm:

- Company Composition, percentage of employees who are:
  - Scientific/technical
  - Management/sales
  - Manufacturing/labor
  - Corporate/administration
- List of Board of Directors
- Company size at the end of Phase II, Phase II Enhancement, and entering CPP
- Business Structure
  - S Corp
  - C Corp
  - LLP
  - Other
- Date of more recent Business Plan
- Is Firm Publicly-Owned?
- Defense Technology Areas of the project
  - Air Platform
  - Chemical/biological defense
  - Information systems
  - Ground/sea vehicles
  - Materials/processes



- Biomedical
- Sensors
- Electronics
- Battlespace Awareness
- Space platforms
- Human systems
- Weapons
- Nuclear technology
- Project History, dates of:
  - Phase I Award
  - Fast Track Award
  - Phase II Award
  - Phase II Enhancement Award
  - CPP Selection
  - Phase III Award
- CPP Assistance Received
  - Business Development
  - Quality Control
  - Manufacturing
  - Marketing
  - Additional Funding
  - None
  - Legal/Contractual
  - Exporting/ITAR
  - Declined Assistance
- Project Collaboration
  - University/College
  - DoD Prime Contractor
  - Non-Profit Corporation
  - Venture Capital Firm
  - Manufacturing Firm
  - Angel Investor
  - Other Corporation
- Collaboration Background (narrative)
- Technical Abstract of CPP (narrative)
- Transition/Business Plan (narrative)
- Key Technical and Commercial Milestones of CPP (narrative)
- Value to Warfighter or Anticipated Customers/End Users (narrative)
- Potential Commercial Applications and Economic Impact (narrative)
- Keywords
- Program Feedback
  - How would you rate the quality of CPP support you received?
  - How could the Commercialization Pilot Program be improved?
  - Suggestions for improvement

Data currently supplied by the DoD Component:

- Status of CPP project – planned, active, inactive
- Technology Status (on a scale from 1 to 9, at the end of Phase II, at the beginning of CPP, at present – all that apply)
  - Technology Readiness Level (TRL)
  - Manufacturing Readiness Level (MRL)
  - Engineering Manufacturing Readiness Level (EMRL)
  - Business Readiness Level (BRL)
  - Integration Readiness Level (IRL)
- Points of Contact
  - COTR – Name, organization, phone, email
  - PEO/PM – Name, PEO, project, phone, email
  - CPP Facilitator – Name, company, phone, email
  - Prime Contractor – Name, company, phone, email
- Funding
  - Phase II Enhancement – SBIR \$, Mission/Investor \$
  - CPP – SBIR \$, Mission/Investor \$
  - Phase III – Product Sales \$, Mission/Investor \$
- Transition
  - Military Command
  - Private Sector
  - Prime & Fielded System
  - Other (explain)
- Is/was money for this project in the POM cycle?
- Project Impact
  - Product
  - License Agreement
  - Improved Capability
  - Cost Reduction
  - Improved Safety
  - Improved Supplier Base/Competition