

SBIR/STTR



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Office of Naval Research

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Extramural Programs **Reserved for Small Business**



**SMALL BUSINESS INNOVATION
RESEARCH (SBIR) PROGRAM**

**SMALL BUSINESS TECHNOLOGY
TRANSFER (STTR) PROGRAM**

Program Descriptions



- **SBIR:** Set-aside program for small business concerns to engage in federal R&D -- with potential for commercialization.
- **STTR:** Set-aside program to facilitate cooperative R&D between small business concerns and U.S. research institutions -- with potential for commercialization.

WHY SBIR????

Small Business Innovation Development Act of 1982

Congress designated 4 major goals

- **Stimulate technological innovation**
- **Use small business to meet federal R&D needs**
- **Foster and encourage participation by minorities, disadvantaged persons and women in technological innovation**
- **Increase private-sector commercialization innovations derived from federal R&D**

1992 REAUTHORIZATION

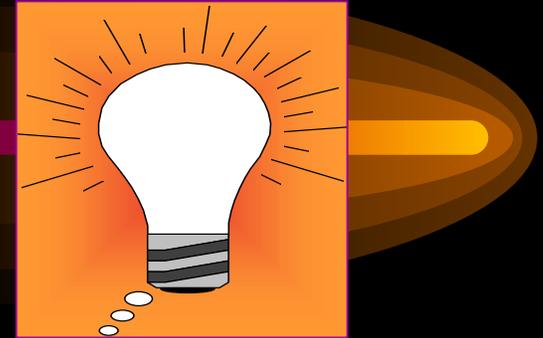
PURPOSES OF P.L. 102-564, SIGNED 10/28/92

- **Expand and improve SBIR Program**
- **Emphasize goal of increasing private sector commercialization**
- **Increase small business participation in federal R&D**
- **Improve dissemination of information on SBIR Program**

SBIR/STTR: 3-Phase Program

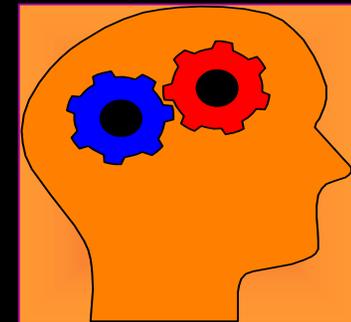
- **PHASE I**

- Feasibility study
- \$100K and 6 months (SBIR)
or 12 months (STTR)



- **PHASE II**

- Full R/R&D
- 2-Year Award and \$750K (SBIR)
or \$500K (STTR)



- **PHASE III**

- Commercialization Stage
- Use of non-SBIR Funds



Some important facts to remember

- Eligibility is determined at time of award
- No appendices allowed in Phase I
- The PI is not required to have a Ph.D.
- The PI is required to have expertise to oversee project scientifically and technically
- Applications may be submitted to different agencies for similar work
- Awards may not be accepted from different agencies for duplicative projects

SBIR PROGRAM

- Program re-authorized through FY 2000
- **10 agencies** with R&D budgets greater than \$100 million participate
- Amounts to be **set-aside** of R&D budget:

FY 1987-92: 1.25%

FY 1993-94: 1.5 %

FY 1995-96: 2.0 %

FY 1997 and beyond: **2.5 %**

SBIR/STTR Participating Agencies



TOTAL ~ \$1.7 B
FY 2003

- **DOD** **SBIR/STTR**
- **HHS** **SBIR/STTR**
- **NASA** **SBIR/STTR**
- **DOE** **SBIR/STTR**
- **NSF** **SBIR/STTR**
- **USDA** **SBIR**
- **DOC** **SBIR**
- **EPA** **SBIR**
- **DOT** **SBIR**
- **ED** **SBIR**

Agency SBIR/STTR Differences



- **R&D Topic Areas**
- **Dollar Amount of Award (Phase I and II)**
- **Receipt Dates / Number and Timing of Solicitations**
- **Proposal Review Process**
- **Proposal Success Rates**
- **Type of Award (Contract or Grant)**
- **Many other details:**
 - **Profit or fee allowed**
 - **Phase I to Phase II gap funding**
 - **Payment types and schedule**

SBIR vs STTR

UNIQUE FEATURES



	SBIR	STTR	
Set-Aside of Agency Budget	2.5%	0.15%	
FY03 SBIR/STTR Budget	~ \$1.7 Billion		
Award Guidelines	Phase I	\$100K/6mos	\$100K/12 mos.
	Phase II	\$750K/2 yrs	\$500K/ 2 yrs
Subcontracts	Phase I	<33%	<60%
	Phase II	<50%	<60%
Academic Component	Not Required	>30%	
Business Employment of PI	>50%	n/a	

SBIR PROGRAM ELIGIBILITY CHECKPOINTS

- ✓ Organized **for-profit** U.S. business
- ✓ At least **51% U.S.-owned** and independently operated
- ✓ Small Business **located in the U.S.**
- ✓ P.I.'s **primary employment with small business during project**
- ✓ **500 or fewer employees**

STTR PROGRAM



FORMAL COOPERATIVE R&D EFFORT

- Minimum 40% by small business
- Minimum 30% by research institution



U.S. RESEARCH INSTITUTION

- College or University; other non-profit research organization; federal R&D center



PRINCIPAL INVESTIGATOR FROM SMALL BUSINESS and/or RESEARCH INSTITUTION



AWARD MADE TO SMALL BUSINESS

Reasons to Seek SBIR/STTR Funding Opportunities

- Over **\$1.7 Billion** available
- **Seed money** to fund high risk projects
- **NOT A LOAN** - no repayment of award
- Intellectual property rights **retained** by small business
- **Recognition, verification and visibility**

For more information.....



- **Contact individual agency websites**
- **Cross-agency website:**

<http://www.zyn.com/sbir>

- ➔ **Conferences / workshops**
- ➔ **Topic search engine for *all* agency solicitations**

DOD SBIR PROGRAM MGRS

- DOD SBIR COORDINATOR.....JEFF BOND.....(703) 588-8616
- ARMY.....MAJOR JANICE BAKER....(703) 617-7425
- NAVY.....VINNY SCHAPER....(703) 696-8528
- AF.....STEVE GUILFOOS.....(800) 222-0336
- MDA.....FRANK RUCKY.....(703) 697-3641
- DARPA.....CONNIE JACOBS.....(703) 526-4162
- OSD (DDR&E).....TERESA PURETZ.....(703) 607-5319
- CBD..... MAJOR JANICE BAKER.....(703) 617-7425
- SOCOM.....KAREN PERA.....(813) 828-7549
- DTRA.....RON YOHO.....(703) 810-4831
- NIMA.....DERRICK RIDDLE....(301) 227-5585

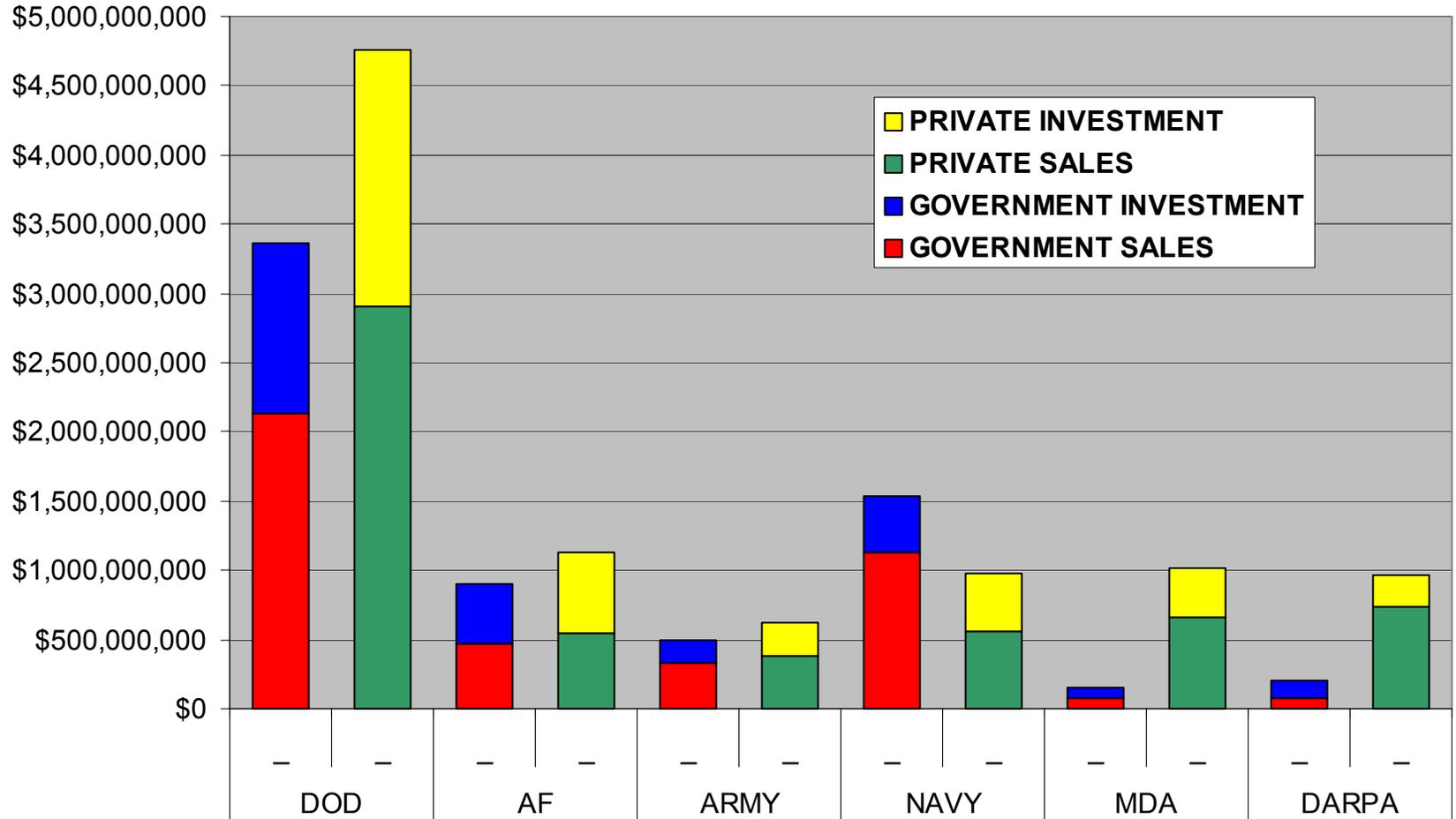
FY 03 DOD SBIR BUDGET

- ARMY...\$165.1M
- NAVY...\$196M
- AF.....\$265M
- MDA.....\$131.8M
- DARPA...\$ 61M
- OSD.....\$44M
- CBD.....\$ 9.1M
- SOCOM ..\$ 10M
- DTRA....\$ 4.9M
- NIMA.....\$ 1.3M
- ROUGH DOD SBIR FY03 TOTAL....\$888M

STTR BUDGET

- Army \$9.907M
- Navy ... \$11.919M
- Air Force ... \$12.41M
- DARPA \$3.662M
- MDA ... \$7.9M
- Rough DOD STTR FY03 TOTAL....46M

GOVERNMENT VS PRIVATE SECTOR COMMERCIALIZATION FROM DOD SBIR

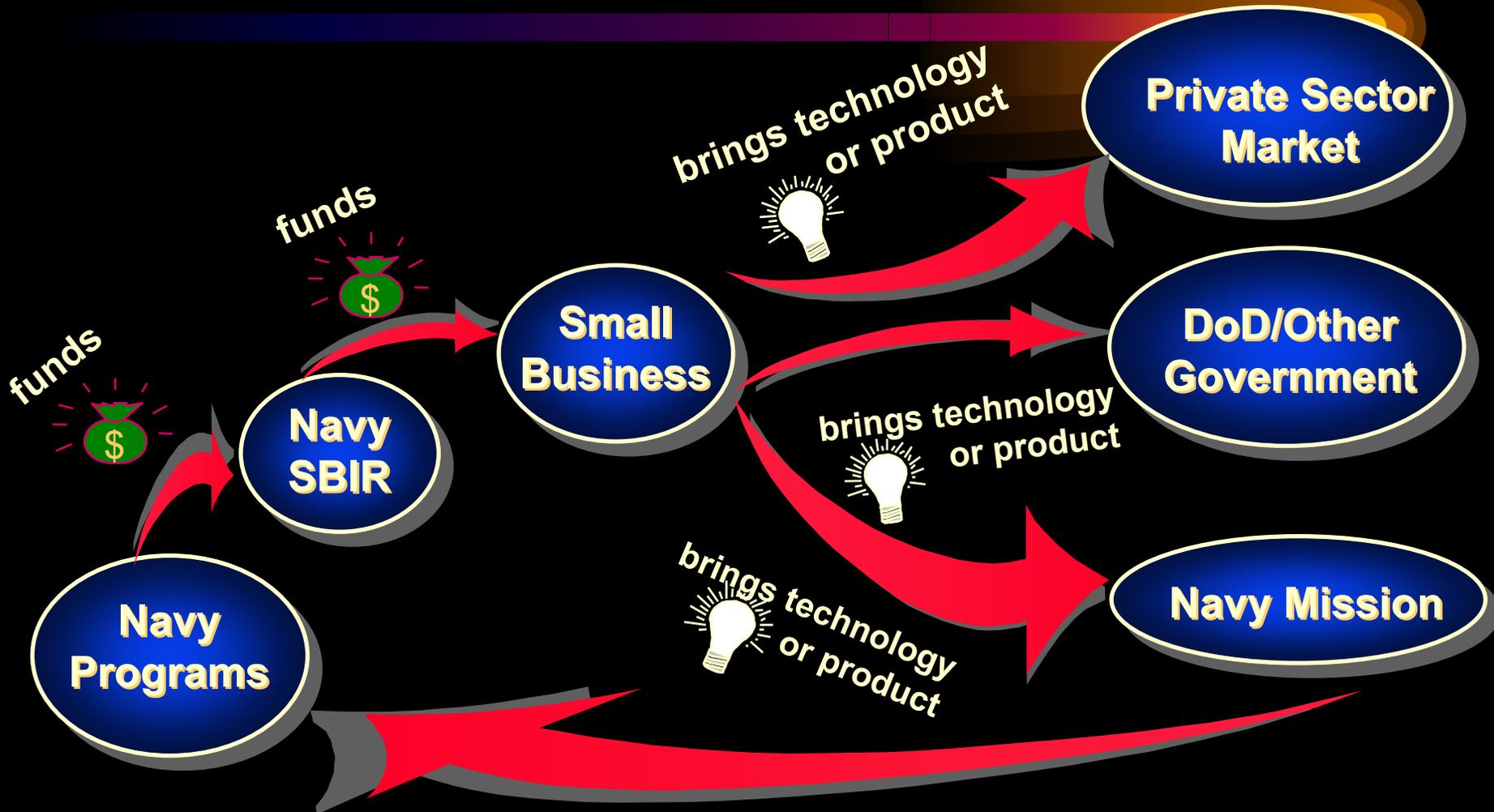


Source: DoD commercialization database as of May 2003, sales from 1984-2001

Navy SBIR Program Description

- Navy SBIR is a mission oriented R&D program - that is.. a risk reduction program
- Strongly aligned with Acquisition Programs which Transition Technology to Fleet/Nation
 - Acquisition has different colors of funding
- Provides the small business an opportunity to participate in meeting Navy/DOD needs
- Can commercialize their technology in the private sector
- Provide CAP (Commercialization Assistance Program) to help Small Businesses with business.

Leveraging Investment in Small Business



SBIR Program - Background

- Funds early-stage R&D at small technology companies
- Funds projects in three phases:
 - Phase I (6 months, up to \$100,000, feasibility)
 - Phase II (2 years, up to \$750,000, to prototype)
 - Phase II Enhancement \$250K in Phase II if company obtains \$1M in Phase III during Phase II
 - Phase III (non-SBIR funds to develop into product)
- In FY 2003 SBIR funding estimated to be \$196M

Navy SBIR Funded Assistance to Small Businesses



- Dawnbreaker Inc.
 - Provides commercialization assistance to Navy SBIR companies
 - Development of Businesses Plans
 - Assists in formulating business concepts
 - May CAP FOURM--Introduces SBIR companies to PEOs, PMs, and VCs and trains them to brief each entity

Navy SBIR Strategy

- PROVIDE 90 - 95% of the SBIR/STTR/Admin assessment back to the assessed programs/PEOs for SBIR topics.
- Use all potential Navy sources for topic generation, including System Commands, Warfare Centers, PEOs and Laboratories to develop topics that address Navy needs.
- Encourage acquisition programs to work with Navy prime contractors to develop topics beneficial to Navy's end product (and to work with the small business that developed the technology).
- Designed to transition 40% - 50% of Phase I to Phase II

Organizational Structure

- Program is Administered by the Office of Naval Research
- Program Participants
 - Naval Sea Systems Command: Warfare Centers, PEO's and Prog. Managers
 - Naval Air Systems: Warfare Centers, PEO's and Program Managers
 - Office of Naval Research: Science & Technology Directorates and Naval Research Laboratory
 - Space & Warfare Sys. Command: Warfare Centers, PEO's and Prog. Managers
 - Marine Corps Systems Command: Associated Program Managers
 - Naval Supply Systems Command
 - Naval Facilities Systems Command: NAVFAC

The Navy's Mission-Critical Science and Technology Areas

Technology

- Aerospace Propulsion and Power
- Aerospace Vehicles
- Battlespace Environments
- Chemical and Biological Defense
- Clothing, Textiles and Food
- Command, Control & Communications
- Computing and Software
- Conventional Weapons
- Electron Devices
- Electronic Warfare
- Environmental Quality/Civil Engineering
- Human Systems Interfaces
- Manpower, Personnel & Training Systems
- Manufacturing Technology
- Materials, Process and Structures
- Medical
- Sensors
- Surface/Undersurface & Ground Vehicles
- Modeling and Simulation

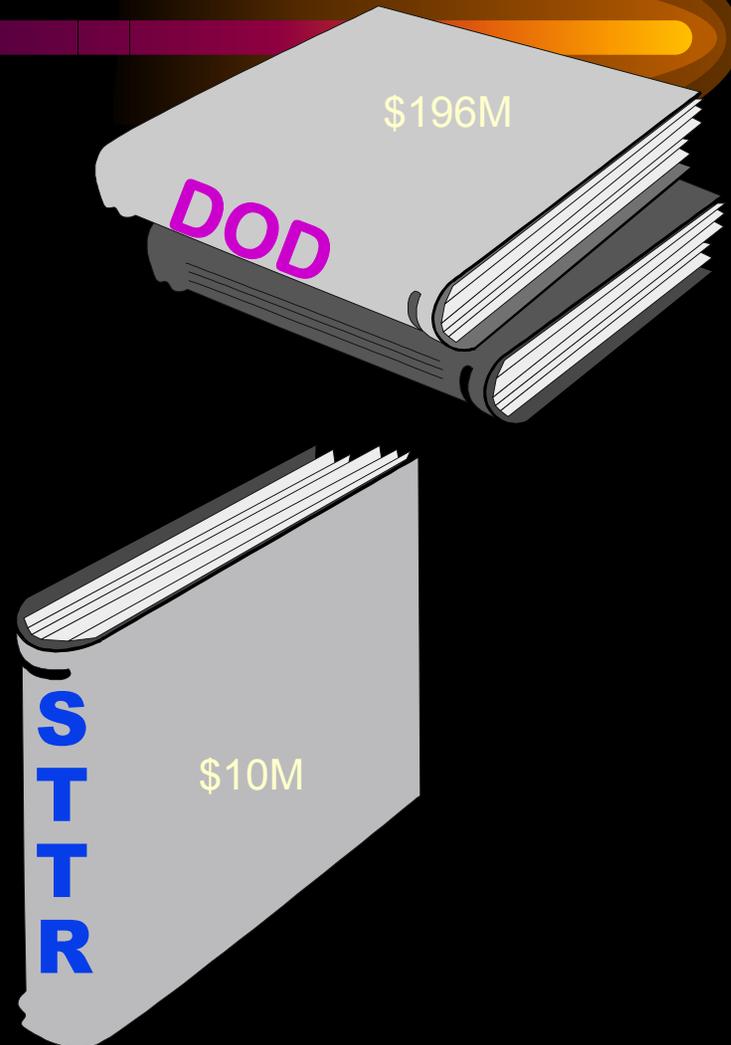
Science

- Computer Sciences
- Mathematics
- Cognitive & Neural Sciences
- Biology & Medicine
- Environmental Sciences
- Atmospheric & Space Science
- Ocean Science
- Ocean Geophysics
- Physics
- Electronics
- Materials
- Mechanics
- Chemistry



Solicitations Per Year

- 2 DoD Solicitations
 - ~ PreSolicitation May/Oct
 - ~ Opens July/Dec
 - ~ Closes - Aug/Jan
- 1 STTR Solicitation
 - ~ PreSolicitation Jan
 - ~ Opens March
 - ~ Closes mid April

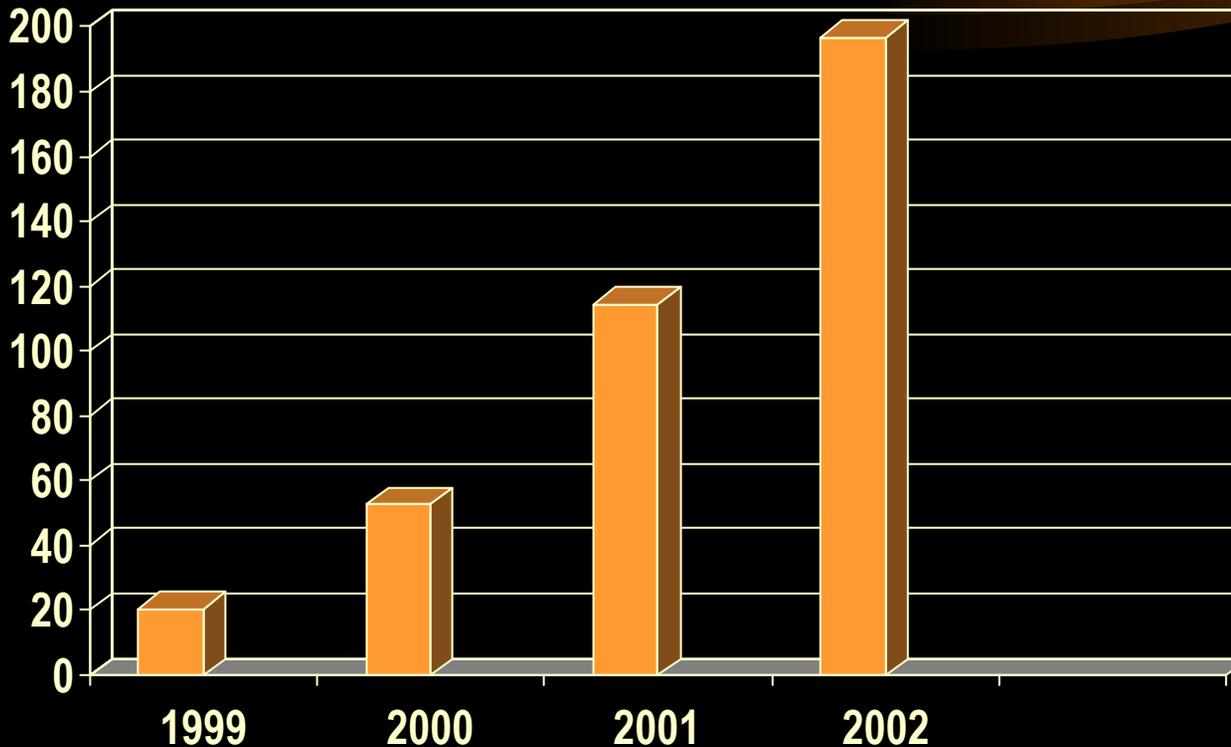


Requirements in Navy and DOD

- May 6, 1998 Mr.. Douglas (ASN R, D&A)/Reinforced by Dr. Buchanan
 - Acquisition managers to include SBIR in their programs addressing TOC
 - SBIR plans may require prime contractors participation with small businesses
- Dr. Gansler addressed acquisition use of SBIR in 1998 and 1999
- Warner Amendment Sec 818 of PL 105-261
 - Enable acquisition managers to leverage SBIR
 - Implement metrics for acquisition programs to use SBIR
 - Educate acquisition program and SBIR community of advantages of integrating SBIR
- Sec 812 of PL106-65
 - Major acquisition programs designate liaisons to SBIR Community
 - Establish connectivity between SBIR program and acquisition needs
 - Enable acquisition programs and private sector to leverage SBIR

Phase III FUNDING from Navy

- \$M



Info from DD 350

Does not include funding for DSR, SAVI, Logis-Tech, VIASAT, TPL from other DOD/non-DON elements

Examples of Navy SBIR Successes

- QUALCOMM INC. ...Met need for air warfare protocols
 - NASDAQ
- DSR, Inc - MPP Processor ...Provided lower cost and improved performance of weapons systems with COTS
 - Over \$100M in Navy Phase III - partnered with Lockheed Martin
- Microcom, Inc. ...Improved Transponder..Funded as second source
 - Bought by Loral...now L3 Communications
- LogisTech, Inc. - Platform protection from corrosion
 - Over \$500M in DOD PHASE III
- SAVI Inc. - provided total asset visibility for DOD
 - Large DOD contracts (> \$200M)/sold to TI/Raytheon/spun off
- Science and Applied Technology - AARGM Dev
 - Over \$200M for development + \$365M additional for demval

SBIR ANTI-TERRORISM TOPIC

- Topic N02-207 in Navy part of the DOD SBIR 2002.2 Solicitation Anti-terrorism topic
 - 4 major areas... ~\$2.8M (48 proposals funded) in Phase I and \$20M (approx. 25 - 30 proposals funded) in Phase II
 - Detection, Indicators, and Warnings
 - Survivability and Denial
 - Consequence Management and Recovery
 - Attribution and Retaliation

Navy SBIR/STTR Bulletin Board

Get the most updated information on the Navy program

<http://www.navysbir.com>. You need to search DOD/Navy SBIR Database for developed technologies



Small Business Innovation Research
DEPARTMENT OF THE NAVY



- [About SBIR/STTR](#)
- [Submission](#)
- [What's New](#)
- [Solicitation](#)
- [Search Database](#)
- [POC's & Links](#)
- [Success Stories](#)
- [FAQ's](#)
- [ONR Home](#)
- [Contents](#)
- [Home](#)

About SBIR/STTR
Learn how the program works; who can participate; how to get started and other general information.

Submission
You must access this site when submitting a Phase I or II proposal to the Navy. Navy requires electronic submission of appendices A, B, & E and project summary reports.

What's New
Review recent award winners, new requirements, upcoming conferences and late breaking news.

Solicitation
Review current topic solicitation and instructions along with links to other Government SBIR solicitations.

Search Database
Identify technology that you can use in your program. Find out who is working in certain technology areas by searching Phase I & II Abstracts, Summary Reports and Success Stories.

POC's/Organizations/Link's
Links to all Navy SBIR Program Offices, and other helpful organizations and websites.

Success Stories
Review SBIR funded efforts that have successful transitions. Gain access to detailed information on technology that is ready to be implemented into your application.

FAQ's
Review our collection of frequently asked questions about the SBIR and STTR Program.