Presentation

The Department of Defense Ordnance Technology Consortium

Helping the Warfighter Maintain Technological Superiority on the Battlefield

Presented by:

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Senior Advisor, NWEC Executive Committee

March 2013

Presentation Outline

- What is DOTC?
  - The DOTC Enterprise
  - Our Business Model
  - Consortium Attributes
- Why Should I Use It?
  - Features & Benefits
  - Government & Industry Testimonials
- How is It Organized?
  - Enterprise Organization with Technical Focus Areas
- How do I Use It?
  - Concept of Operations
  - Annual Cycle & Schedule
  - Acquisition Options
- Who is Involved?
  - Government & Industry Participants
- Current Operations/Trends
  - On-going Research Initiatives
  - Enterprise Growth Trends
- STEM Education Outreach
- Points of Contact

The DOTC Enterprise

A Premier Government, Industry & Academic Partnership

The DoD Ordnance Technology Consortium (DOTC)…

- **DOTC is a collaborative partnership between the Department of Defense and the National Warheads and Energetics Consortium (NWEC)**

- **Commissioned by USD (AT&L) as a DoD initiative in 2002, DOTC was established to facilitate collaboration between the Government, Industry, and Academia in the advancement of munitions technologies**

- **DOTC is available for use by all Service Laboratories, Program Offices, and other Agencies for the development and prototyping of advanced concept warheads, energetics, fuzes and other related enabling weapon system technologies**

DoD and NWEC… Partnering to Leverage Each Others Capabilities and Investments

Our Business Model

Two Consortia, One Enterprise… A Different Way of Doing Business

DOTC…a consortium of Government Laboratories and Agencies, and its NWEC component; commissioned by the USD(AT&L); operating under an Other Transaction Agreement (Public Law 103-160, Section 845); and, governed by an eighteen (18) member Government, Industry and Academic Executive Committee, co-chaired by representatives from the Government and NWEC.

NWEC…an open and competitive consortium of traditional and non-traditional defense contractors, and academic institutions operating under the provisions of an NWEC Consortium Member Agreement, executed by the participating member organizations, and governed by a 9 member Executive Committee of small business, large business and academic institutions

Government, Industry and Academia Partnering for Ordnance Technology Development

Consortium Attributes

One Organization…One-stop Shopping…

- **Operating concurrently under a seven (7) year, $700M-ceiling, and a five (5) year, $500M-ceiling, Section 845 Other Transaction Agreement (OTA) executed between the Government and NWEC**
- **OSD-approved OTA can be used by all Program Offices, Services, and Agencies for more rapid industry engagement versus traditional FAR-based acquisitions**
- **Competitive proposal evaluations and initiative oversight is performed by the Government activity that is funding the research and development**
- **Joint and transparent Government, Industry, and Academic planning leverages the parties' individual investments**
- **Agile, flexible, and responsive business practices allow urgent out-of-cycle requirements to be acted upon immediately by over 210 member organizations**
- **Requirements can be included in the Annual Technology Plan, and white papers and proposals can be received and evaluated before funding becomes available**
- **One-stop shopping through DOTC provides access to non-traditional defense contractor's innovative ideas and technologies in an open and competitive environment**

OTA Between DoD and NWEC

A Premier Government, Industry & Academic Partnership

FEATURES	BENEFITS
Open Membership	Affords opportunity for all interested members of industry and academia to participate by imposing reasonable membership requirements.
Streamlined Acquisition	Existing contract and flexible business processes reduce duplicative FAR-based upfront contract processes, thus reducing overall development and fielding time for prototype materiel solutions.
Collaborative and Competitive Environment	Enables Government and Consortium members to collaborate in an upfront technology planning process. Consortium members (or teams of members) then compete in response to government Request for Project Proposals in anticipation of technology development funding against the tech development plan/projects. The Government solicits, evaluates, selects and awards.
Targeted Research Investment	Provides Consortium members early insight into technology requirements which in turn allows them to focus their Independent Research and Development (IRAD) resources on items that matter to the Government.
Small Business and Non-traditional Participation	Encourages participation by small and non-traditional defense contractors that can bring innovative technologies and solutions to both the Government and the Consortium member organizations.
Resource Leveraging	Allows Government and Consortium members to leverage their financial resources and employ each others' facilities, technology and human capital investments to achieve critical mass.
Single-Point Contracting	Reduces proposal preparation, contract award, and congressional reporting burdens on both the Government and Consortium members.
No Protests Allowed	Prohibits formal protests against the Government's project selections/awards.
DoD / Industry, Academia Partnering	Minimizes ordnance technology development duplication across Services, Agencies and Industrial/Academic enterprise components.

Government Testimonials

A Premier Government, Industry & Academic Partnership

"…the DOTC process has been very valuable for the development of new weapon system technologies that meet a wide variety of Warfighter mission requirements and to support the rapid transition of these new technologies to the Industrial Base. An addition benefit is DOTC allows us meet DA obligation goals which is vital to keep the S&T activities funded."

Ms. Barbara J. Machak, SES - Executive Director, Enterprise and Systems Integration Center, ARDEC

"Over the past four years PM CAS has used the DOTC to advanced its strategic objectives. The annual plan has proven to be an effective and efficient tool in aligning Industry IRAD investments with PM CAS goals. The flexibility and responsiveness of the DOTC staff enabled key programs such as the Accelerated Precision Mortar Initiative (APMI) to advance rapidly toward qualification. "

Mr. Martin Moratz, Chief, Conventional Ammunition Division, PM-CAS

"DOTC has provided an easy-to-use mechanism to access multiple ordnance-related companies for the purpose of doing Research & Development on critical DOD materials. Through the use of DOTC, a tri-service explosives development program for TATB was able to be established, which ultimately could lead to a CONUS source of TATB."

Mr. Charles R. Painter, Director, Navy Energetics ManTech Center

" We have used DOTC initiatives with great success to meet the growing demands of PEO Ammunition and PM Close Combat Systems. The DOTC acquisition approach has been one of the single most important tools to provide my growing organization with flexible and timely contract awards to get the job done effectively."

Mr. James L. Wejsa, Chief, Pyrotechnics Technology & Prototyping Division, ARDEC

" Utilizing a Single Point of Contact approach has provided maximum flexibility to manage the contractual aspects of a dynamic program like this. All parties are benefitting from a more efficient and effective way to execute DOTC requirements. It significantly reduces processing times and the need to interface with individual member companies."

Mr. Bruce B. Berinato, Principal Assistant Responsible for Contracting, US Army Contracting Command

Customer Satisfaction… Assured Through Timely Performance and Successful Execution

Industry/Academia Testimonials

A Premier Government, Industry & Academic Partnership

"NWEC/DOTC provides the only viable avenue for small businesses to bring innovative ordnance technology to DoD and work as active partners with the Government . The flexibility and collaborative exchange allows us to address Warfighter needs as the threats evolve and get the right technology out to the field without delay. We have received four Army Invention of the Year Awards for our team efforts with the Government and would not have been afforded the opportunity to be on these teams had it not been for NWEC/DOTC."

Ms. Diana-Lynn Herbst, Director, Contracts & Business Development, CLogic Defense

"The NWEC/DOTC consortium provides a rare and powerful mechanism for collaboration among government, industry, and academic institutions to address the Warfighter's needs with technically superior solutions in an efficient and timely manner. The synergy provided by the NWEC/DOTC partnership grows with each new member added. The consortium's large technology base combined with an efficient and flexible contracting mechanism affords small businesses (like SciTech Services, Inc) and those who traditionally do not work on DoD based programs the opportunity to apply their unique knowledge and skills to our country's defense. This is nearly impossible outside of the consortium environment."

Thomas P. DeAngelis, Ph.D.; Executive Vice President, SciTech Services, Inc.

"As an academic researcher, the defense contracting process often appears inscrutable. However, the DOTC enterprise provides three key attributes to address this:
- Insight into the Warfighter's needs, assisting with the identification of promising technologies still in the laboratory;
- Access to Government proponents, allowing collaboration in determining an appropriate path forward to develop these technologies into solutions;
- Responsiveness through a streamlined proposal and contracting process, providing feedback along the way."

Dr. Eric Boyer, Dept. of Mechanical and Nuclear Engineering, The Pennsylvania State University

" The NWEC/DOTC is a powerful collaborative enterprise comprised of members of the DoD and DOE community, industry and academia, working together to bring advanced technology and solutions to the Warfighter. It provides large businesses like SAIC, a platform to engage the government, other industry members including small and non-traditional defense businesses and academic institutions in proposing and executing advanced munitions related research projects. It also provides an efficient, rapid and flexible contracting process essential to rapid development of technology for the Warfighter. These attributes, not available outside of this type of framework, make the DOTC enterprise an indispensable mechanism for consortium members to develop cutting edge technology in support of the DoD."

Paritosh R. Dave, Ph.D.; Assistant VP; Energy, Environment & Infrastructure Solutions, SAIC

ATK has been effectively using the DOTC process across five our major divisions since its inception. This process has allowed us to leverage technology throughout the industry, academia, and the Army labs (specifically ARDEC and ARL). There is NO other process in the DoD that allows for this collaborative forum for rapid development and demonstration of next generation munitions technology. This process is uniquely set up for determining the requirements of the next generation munitions to meet the needs of the emerging battlefield. This is critical in getting what the Warfighter wants, when they want it, while not compromising the tenets of the engineering design process.

Charlie Zisette; Director, Engineering; ATK Advanced Weapons

Enterprise Organization

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DOTC Executive Committee

Mr. Jose M. Gonzalez, Co-Chairman Government
Mr. Gary A. Schneider, Co-Chairman Industry/Academia

Mr. Paul Turner - AMRDEC
Dr. Gerry Melendez - ARDEC
Dr. Pat Baker - ARL
Mr. Dennis McLaughlin - NSWC-IH
Mr. Mike Till - NSWC-DD
Mr. Dave Janiec - NAWC-CL
Mr. Gene Estep - AFRL-Eglin
Mr. Thomas Russell - AFOSR-WP

Dr. Eric Boyer – Penn State
Dr. Paritosh Dave – SAIC
Dr. Tom DeAngelis – SciTech
Mr. Dan Haun – Nammo Talley
Ms. Diana-Lynn Herbst – C-Logic
Mr. Henry Finneral – Textron
Mr. Dan Hartman – GD-OTS
Mr. Charlie Zisette – ATK

Program Director
Mr. Donald A. Geiss Jr.

STEM Program Manager
Dr. Edward A. Peterson

Technology Manager
Mr. Don Palathinkal

Technology Manager
Ms. Lynda Ru

Technology Manager
Ms. Lia Sosa


Explosives


Enabling Technology


Warheads


Fuze/Sensors


Demilitarization


Joint Insensitive Munitions


Pyrotechnics


Propellants


Protection & Survivability

Concept of Operations

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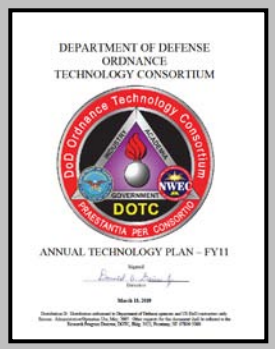
Collaborative S&T, R&D and IRAD Planning

Requirements
Roadmaps
Requirements
JUONS
Requirements
Special Needs
Requirements
Good Ideas

Collaboration Day Meetings



Annual Technology Plan

DOTC ExCom Concurs

Release for Acquisition

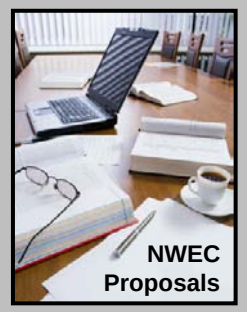
Single Point Contracting Acquisition

Request for Ordnance Technology Initiatives

NWEC White Papers

Preparation & Submittal

Submit & Feedback



Preparation & Submittal

Award

Basket

Gov't Technical Evaluations

Proposal Submissions

ATI Screen for Compliance

DOTC Annual Cycle

Annual Plan Development to Initiative Award…

NOV - JAN

Technology IPTs
Government Project Officer/NWEC Planning

- Draft Annual Plan
- Gov't S&T Guidance
- Input from NWEC
- Collaboration Days

FEB - MAR

Annual Plan Finalized
Call for Ordnance Technology Initiatives

- ExCom Meeting

DOTC Acquisition Activity

APR - JUN

White Papers & Government Feedback

- NWEC General Membership Mtg

JUL - SEP

Proposals Submitted & Evaluated

- ExCom Meeting

SEP - OCT

Selections & Obligate Funding

Funding Available for Selected Proposals?

Yes

Award Initiatives

- INIT 001
- INIT 002
- INIT 003

No

Electronic Basket

In Care of Consortium Management Firm

ATI Advanced Technology International

Basket Proposals Remain Valid for 3 years from Submission Date

- Funding obligated when received (proposal required)
- Prefer RDT&E Funding
- Can accept APA/PAA w/justification
- Can not accept OMA funding

FY14 Schedule

Open BIDS for Annual Plan Requirements	NOV 12
FY14 Updates to Annual Plan due	12 DEC 12
FY14 Annual Plan Release to NWEC	10 JAN 13
Cut-off for Submissions to FY14 Annual Plan	15 FEB 13
DOTC Executive Committee Meeting	26 FEB 13
Release of FY14 Annual Plan to NWEC	01 MAR 13
Request for Ordnance Technology Initiatives	19 MAR 13
White Papers Due in BIDS	23 APR 13
White Paper Feedback to NWEC Members	21 MAY 13
NWEC General Membership Meeting	5-6 JUN 13
Proposals Received in BIDS	16 JUL 13
Proposal Evaluations due in BIDS	13 AUG 13
DOTC ExCom Meeting	19 AUG 13
Technical Direction for Awards	OCT - NOV 13

Getting Started with DOTC

The Standard Process:

- ***Submit Annual Plan Requirement:*** DoD PMs and Lab Technologists -- submit technical requirement(s) to the DOTC office for inclusion in the Annual Plan in the year prior to funding availability

Options for Currently Available Funding:

- Government can review current database of selected and basket proposals on NWEC-DOTC web site
  - ***Incrementally Fund an Existing Initiative***: There may be an open initiative for a similar requirement that can be collaboratively worked (work can be initiated in less than 30 days)
  - ***Award a Basket Proposal:*** Determine if there are any proposals in the basket that meet your requirement (60-80 days award time)
  - ***Out-of-Cycle Request:*** For requirements that will directly effect the soldier in the field or significant RDTE funding investment for urgent transition, an out-of-cycle request can be submitted (4-6 month award time)

Contact the DOTC Program Office for Assistance

Government Participants

A Premier Government, Industry & Academic Partnership

NWEC Membership

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Broad Participation Across the Country

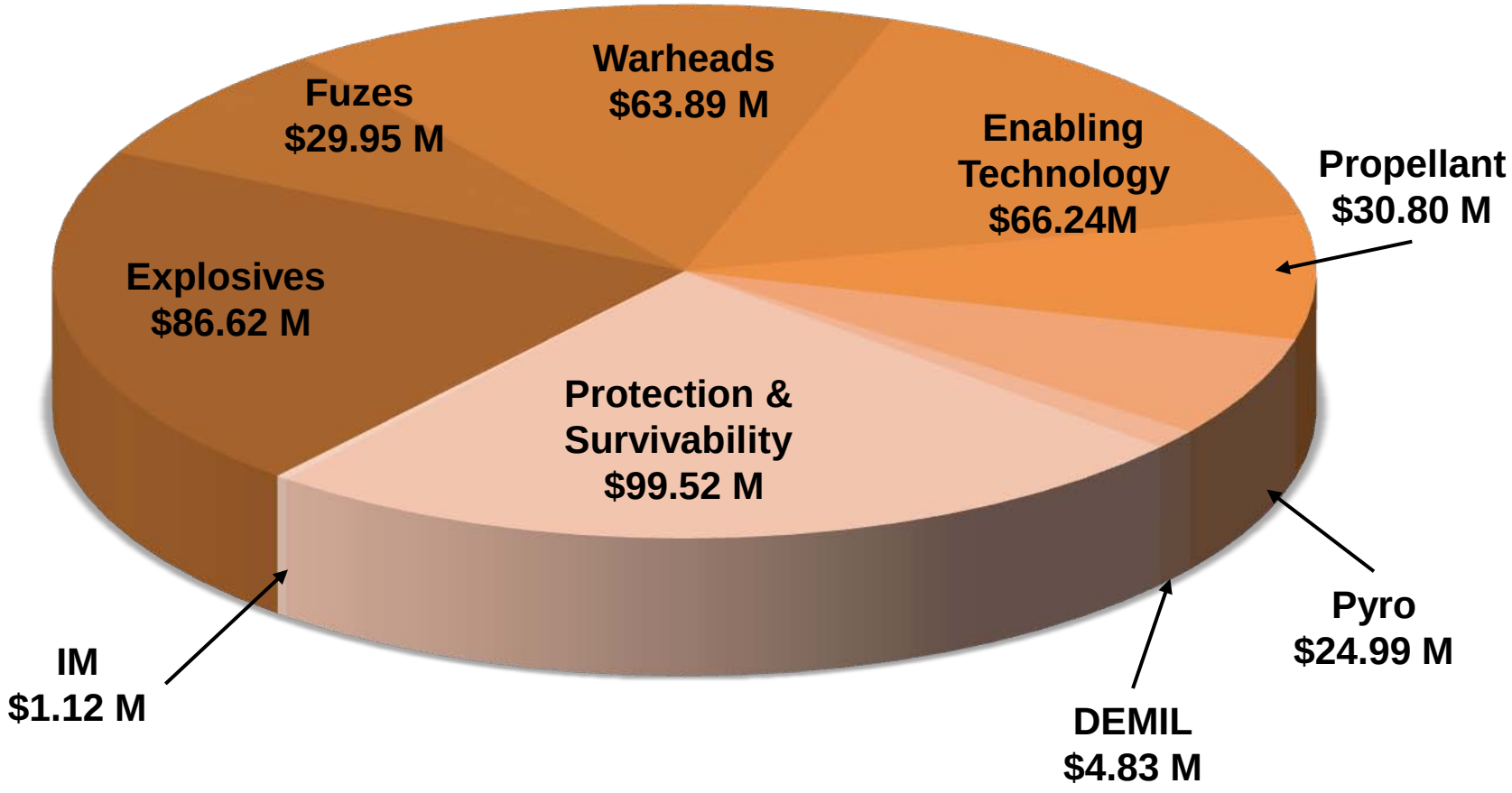
21 CT, Inc.
AAI Corporation
Accurate Energetics Systems LLC
Accurate Munition Systems, Inc.
Action Manufacturing Company
Advanced Materials & Manufacturing Technologies, LLC
Advanced Powder Products, Inc.
Aerojet
Alliant Tech Systems, Inc.
Alliant Tech Systems, Inc. Launch Systems
Alloy Surfaces Company, Inc.
American Ordnance LLC
American Pacific Corporation
American Systems Corp.
AMTEC Corporation
Applied Energetics, Inc.
Applied Research Associates
Arlington Machine and Tool Company
Armtec Defense Products Esterline Defense Group
Artis, LLC
BAE Systems
BAE Systems Armament Systems
Bailey Tool & Manufacturing Company
Battelle
Blue Juice, Inc.
Brinkman International, Inc.
Capco, Inc.
Cartridge Actuated Devices, Inc.
Cerebrus Corporation
Charles F. Day & Associates, LLC
Chemring Energetic Devices
Chemring Ordnance, Inc.
CLogic Defense
Combined Systems, Inc.
Conax Florida Corporation
Concurrent Technologies Corporation
Control Solutions, LLC
Cornerstone Research Group, Inc.
Corvid Technologies
Custom Analytical Engineering Systems, Inc.
Cyalume Technologies, Inc.
Cybernet Systems Corporation
David Earl Cain Consulting
Day & Zimmermann - Munitions & Government
DE Technologies, Inc.
Decilog, Inc
Design West Technologies, Inc.
DHPC Technologies, Inc.
Digital Solid State Propulsion LLC
Dindl Firearms Manufacturing, Inc.
DRS ICAS, LLC
DSE, Inc.
Dynamic Flowform Corporation
Dynamic Systems and Research, Inc.
Dynetics, Inc.
EaglePicher Technologies, Inc.
Electronic Warfare Associates, Inc.
Electronics Development Corporation
Energetics Materials & Products
Energetics Technology Center
EnerSys Advanced Systems Inc.
Engineering and Management Executives, Inc.
ENIG Associates, Inc.
Ensign-Bickford Aerospace & Defense Company
EOIR Technologies, Inc.
Ervin Industries Inc.
Excelitas Technologies Sensors, Inc.
Excet, Inc.
Fibertek, Inc.
FIRST RF Corporation
Fluorochem, Inc.
Franklin Engineering Group, Inc.
Frontier Performance Polymers Corporation
G. Schneider & Associates, Inc.
General Atomics
General Dynamics Armament & Technical Products, Inc.
General Dynamics Ordnance & Tactical Systems
General Sciences, Inc.
Georgia Tech Applied Research Corporation
GG Greene Enterprises Inc.
Gomez Research Associates, Inc.
Gradient Technology (G.D.O., Inc.)
Gunger Engineering
HEM Technologies
Hi-Shear Technology Corporation
Hittite Microwave Corporation
Honeywell International, Inc.
HT Microanalytical Inc.
IllinoisRocstar LLC
Imperial Machine & Tool Company
Infoscitex Corporation
Intelligent Automation, Inc.
JAK Tool and Model LLC
John Hopkins University Applied Physics Laboratory LLC
Kaman Aerospace Corporation
Keystone Automation, Inc.
Kilgore Flares Company, LLC
Knight's Armament Company
Kranze Technology Solutions, Inc.
L-3 Communications Corporation-Brashear Division
L-3 Fuzing & Ordnance Systems
L-3 Interstate Electronics Corporation
Lasertel, Inc.
Latrobe Specialty Steel Company
Lockheed Martin Company
Logistics Engineering & Systems Integration Services, LLC
Lumimove, Inc. (dba Crosslink)
Luna Innovations Incorporated
Marotta Controls, Inc.
MaTech
Materials & Electrochemical Research (MER) Corporation
Materials Sciences Corporation
Matrix Systems, Inc.
MaxPower, Inc.
MBDA Inc.
Medico Industries, Inc.
Meggitt (San Juan Capistrano), Inc.
Meggitt Defense Systems Inc.
Miltec Corporation
Mixed Signal Integration
M-Mech Defense, Inc.
Monte Sano Research Corporation
MSE Technology Application, Inc.
Mustang Technology Group, L.P.
Nalas Engineering Services, Inc.
Nammo Talley Inc.
Nanomaterials Discovery Corporation
nanoPrecision Products, Inc.
NASCENTechnology
National Technical Systems, Inc.
NAVSYS Corporation
NI Industries, Inc.
nLIGHT Photonics Corporation
Northrop Grumman Electronic Systems – ISR Systems Division
Northrop Grumman Systems Corporation, acting through Northrop Grumman Information Systems sector, Defense Technologies Division
Nova Training and Technology Solutions, LLC
NovaTech
Nuvotronics
Nu-Way Industries, Inc.
Olin Corporation - Winchester Division
Omnitek Partners, LLC
Orbital Research, Inc.
Pacific Scientific Energetic Materials Company
Paramount Metal Finishing
Physical Sciences, Inc.
Polestar Technologies, Inc.
Polymer Processing Institute
Prototype Productions, Inc.
QorTek, Inc.
R. Stresau Laboratory, Inc. (dba Stresau Laboratory, Inc.)
R4 Incorporated
Raytheon Company
Resodyn Acoustic Mixers
Reynolds Systems, Inc.
Rockwell Collins
Rocky Mountain Scientific Laboratory
Rocky Research
Safety Consulting Engineers
SAIC
SAIC - Systems Engineering and Advanced Technology Division
Savit Corporation
SciTech Services, Inc.
Security Signals, Inc.
Sentel Corporation
SMH International, LLC
South Carolina Research Authority (SCRA)
Spectra Technologies LLC
SRI International
St. Mark's Powder
Stanley Associates, Inc.
Stevens Institute of Technology
STG, Inc.
Strategic Innovative Solutions, LLC
Streamline Automation, LLC (dba C3 Propulsion)
Subsystem Technologies, Inc.
Surface Optics Corporation
Syntronics, LLC
Systima Technologies, Inc.
Tanenhaus and Associates, Inc.
Tanner Research, Inc
Targeted GeoSystems, LLC
TDA Research, Inc.
Technology & Management International (TAMI), LLC.
Technology Service Corporation
Teledyne RISI
TenCate Advanced Composites
Textron Systems Corp.
Thales USA Defense & Security, Inc.
The Boeing Company
The Pennsylvania State University
The Research Foundation of State University of New York
The Timken Company
Tiburon Associates, Inc.
TORC Robotics, LLC
Touchstone Research Laboratory, LTD
TPL, Inc.
TRAX International Corporation
Triton Systems, Inc.
Universal Propulsion Company, Inc.
Universal Technical Resource Services, Inc.
University of Florida
University of Hartford
University of Rhode Island, Research Office
UTC Aerospace Systems
UTRON, Inc.
UXB International, Inc.
Veritay Technology, Inc.
Vermillion Incorporated
Victory Solutions, Inc.
Waltonen Engineering, Inc.
West Virginia University Research Corporation
Wilkes University
Woodward HRT, Inc.

Color Key
Executive Committee
Member Organizations

Ongoing Research Initiatives

$407.9 million and 169 Initiatives Currently Under Contract…

As of 4 March 2013



Government Participation

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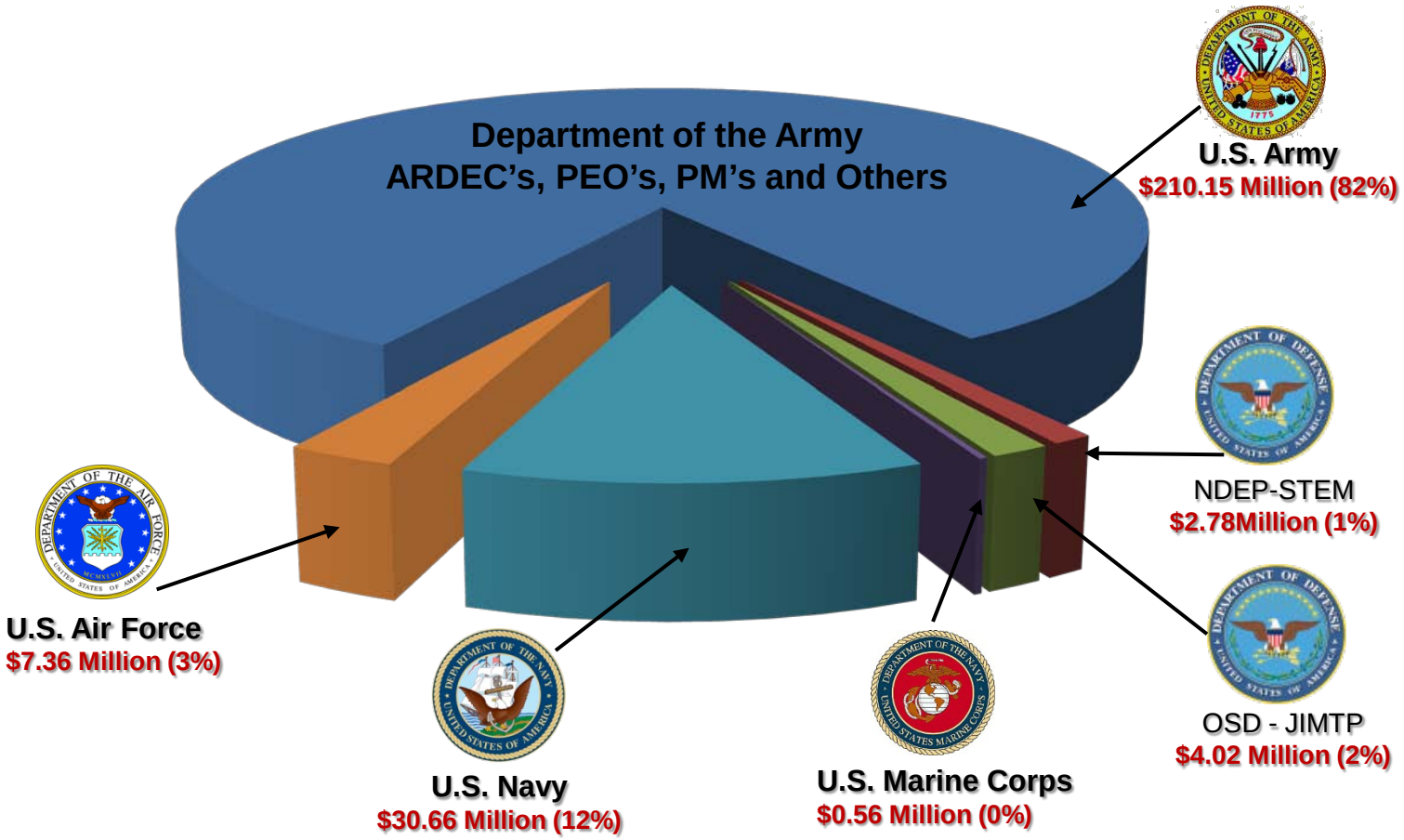
$255.53 Million Provided in FY12 by the Services …

As of EOM September 2012

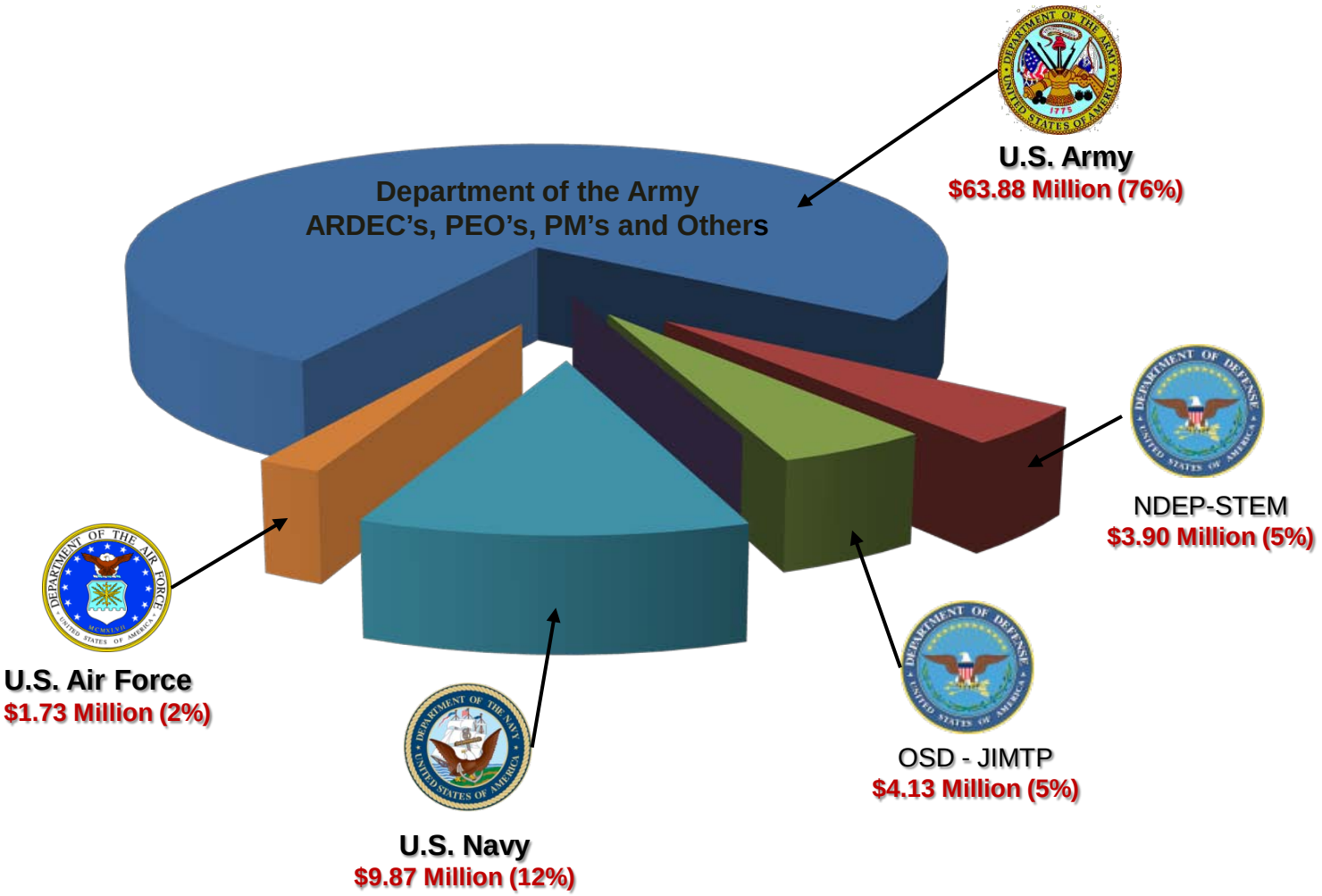


Government Participation

A Premier Government, Industry & Academic Partnership

$83.51 Million Provided in FY13 by the Services …

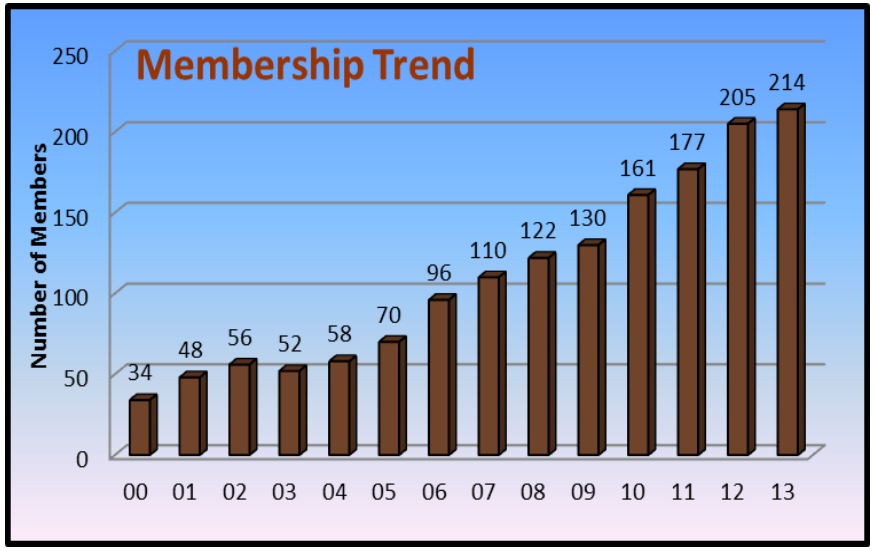
As of EOM February 2013

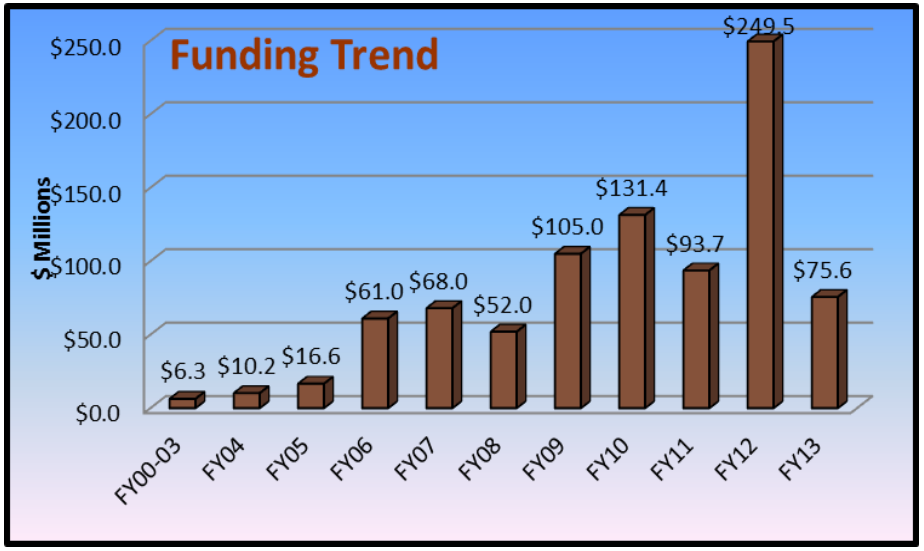


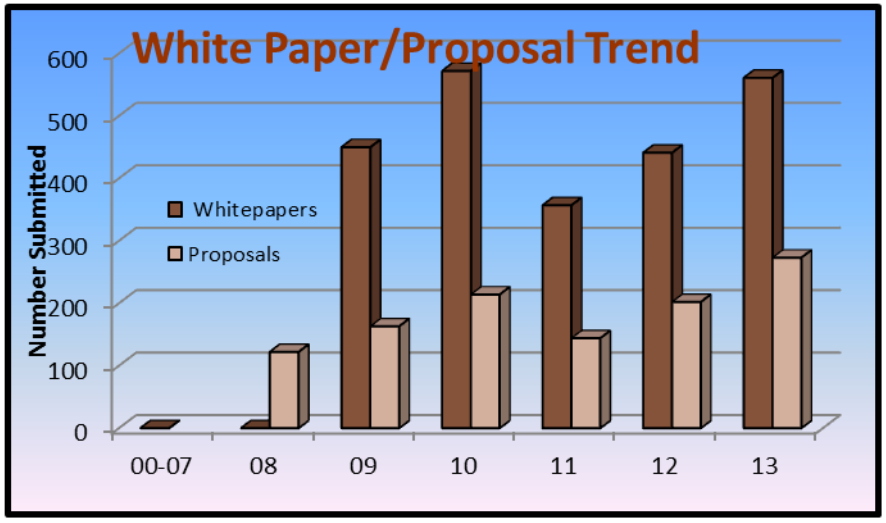
Enterprise Trends

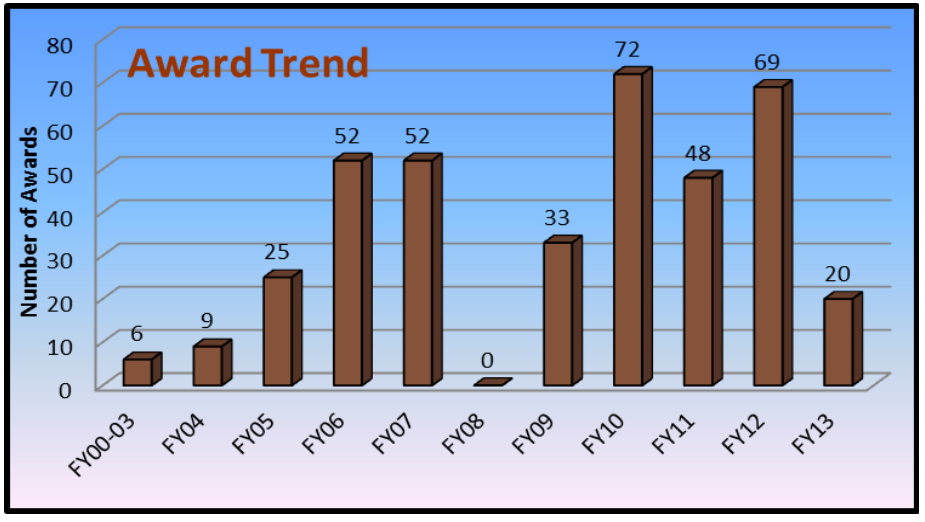
As of 4 March 2013

A Premier Government, Industry & Academic Partnership









Sustained Growth is Important to All DOTC Stakeholders - Government, Industry and Academia

Science, Technology, Engineering & Mathematics (STEM)

Mission: *To Supply Our Future DoD Workforce*

- Provide outreach assistance for students, teachers, and school systems with the intent to increase the number of students selecting STEM careers and improve the technological competence of the overall U.S. population
  - Initiatives include materials science (Materials World Modules), mathematics (Tabula Digita, MATHCOUNTS, and Calculator Robots), robotics (LEGO, FIRST Robotics and Sea Perch)
- We provide professional support from scientists and engineers to schools
  - In-class support, presentations, career day activities, science fairs, and field trips

DOTC STEM: *Advantages*

- Collaborative Government, Industry, & Academia Environment
- Experience in Government / Private Sector Partnerships
- Serves all US Armed Services (Purple)
- Greater Role in National Defense Education Program with Multi – State Footprint and large pool of DoD/Industry S&Es
- Recognized Resource for Developing and Executing STEM Programs

www.stemresource.org

Points of Contact

NWEC Management

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Chairman, NWEC Executive Committee
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