

2012 Munitions Executive Summit



A Premier Government, Industry & Academic Partnership

The Department of Defense Ordnance Technology Consortium (DOTC)

*Enabling:
Collaboration, Communication, and Cooperation
across the Munitions Enterprise*

Presented by:

Mr. Tony Melita
Senior Advisor, NWEAC Executive Committee

February 29, 2012



Presentation Outline

A Premier Government, Industry & Academic Partnership

- **What is DOTC?**
- **Who is Involved?**
- **How is It Organized?**
- **Why Should I Use It?**
- **How do I Use It?**
- **Enterprise Statistics**
- **DOTC Collaboration Days**
- **Summary**
- **Q&A**
- **Points of Contact**



What is DOTC?

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What is DOTC?



The DOTC Enterprise

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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

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

DOTC...a consortium of Government Laboratories and Agencies, and its NWEAC 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 NWEAC.



NWEAC...an open and competitive consortium of traditional and non-traditional defense contractors, and academic institutions operating under the provisions of an NWEAC 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



Technology Focus Areas

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Explosives



Pyrotechnics



Warheads



Joint Insensitive Munitions



Propellants



Enabling Technology



Demilitarization



Protection & Survivability



Fuzes and Sensors

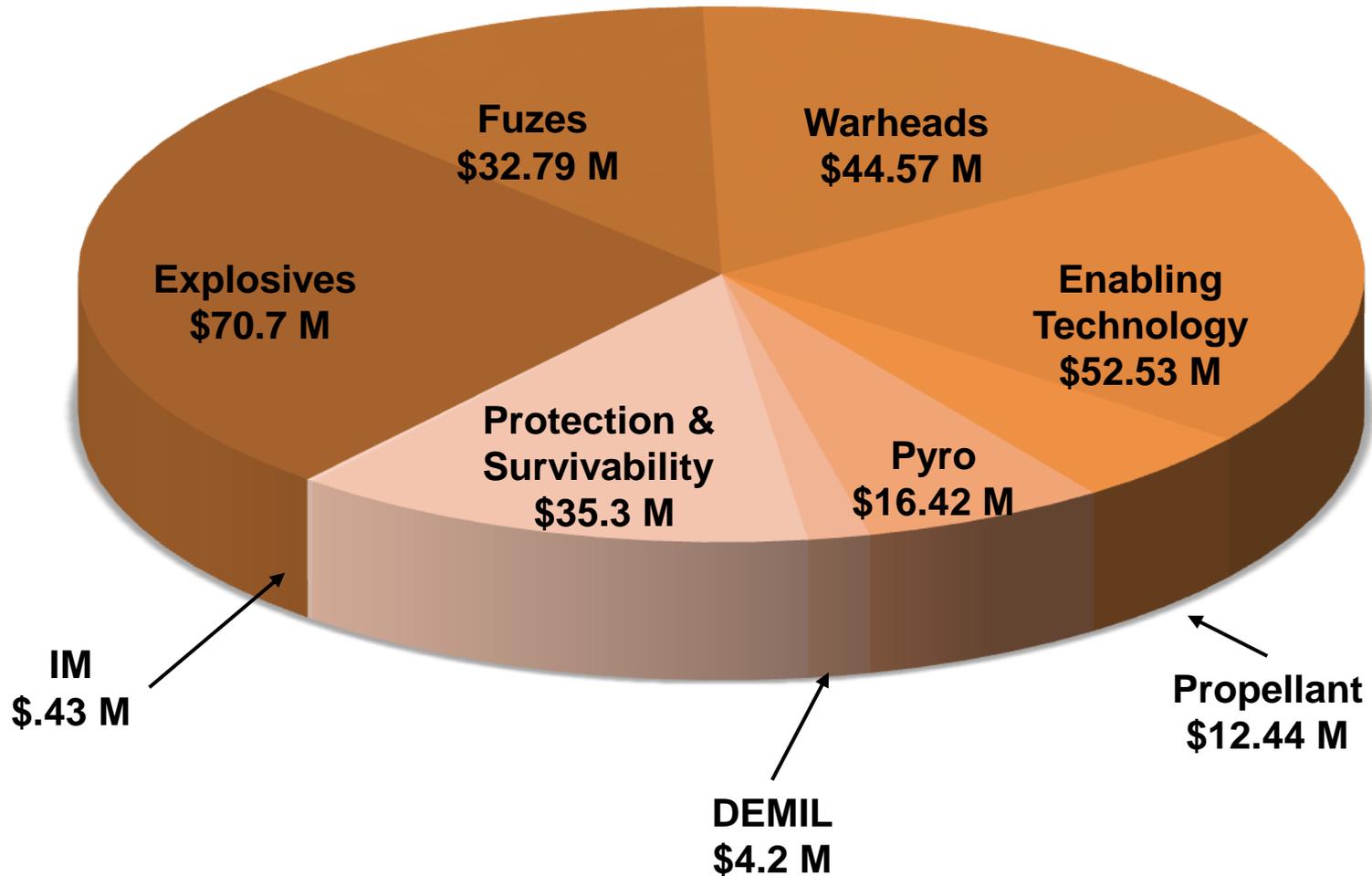


Ongoing Research Initiatives

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\$269.4 million and 129 Initiatives Currently Under Contract...

As of 3 Feb 2012





Who is Involved?

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Who Is Involved?



Government Participants

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Government Participation

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\$93.6 Million Provided in **FY11** by the Services ...

As of 30 September 2011



U.S. Army
\$83.8 Million (89%)



U.S. Navy
\$3.28 Million (4%)



USAF
\$5.28 Million (6%)



Department of the Army
ARDEC's, PEO's, PM's and Others



OSD - Science, Technology, Engineering and Math (STEM) Educational Program
\$1.28 Million (1%)



NWEC Membership

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Broad Participation Across the Country

AAI Corporation
Accurate Energetics Systems LLC
Accurate Munition Systems, Inc.
Action Manufacturing Company
ADEX Machining Technologies
Advanced Materials & Manufacturing Technologies, LLC
Advanced Powder Products, Inc.
Aerojet
Ahura Corporation
Alliant Tech Systems, Inc.
Alliant Tech Systems, Inc. Launch Systems
Alloy Surfaces Company, Inc.
American Ordnance LLC
American Pacific Corporation
American Systems Corp.
Applied Energetics, Inc.
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.
CarboMet, LLC
Cartridge Actuated Devices, Inc.
Ceramatec, Inc.
Charles F. Day & Associates, LLC
Chemring Energetic Devices
CLogic Defense
Combined Systems, Inc.
Concurrent Technologies Corporation
Cornerstone Research Group, Inc.
Corvid Technologies
Custom Analytical Engineering Systems, Inc.
Cyalume Technologies, Inc.
David Earl Cain Consulting
Day & Zimmermann - Munitions & Government
DE Technologies, Inc.
Decilog, Inc.
Digital Solid State Propulsion LLC
Dindl Firearms Manufacturing, Inc.
Directed Energy Technologies, Inc.
Dynamic Flowform Corporation
Dynerics, Inc.
EaglePicher Technologies, Inc.
EFW Inc.
El Dorado Engineering, Inc.

Electronic Warfare Associates, Inc.
Electronics Development Corporation
Energetics Materials & Products
EnerSys Advanced Systems Inc.
Engineering and Management Executives, Inc.
Ensign-Bickford Aerospace & Defense Company
EOIR Technologies, Inc.
Ervin Industries Inc.
Excelitas Technologies Sensors, Inc.
Fibertek, Inc.
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.
Goodrich Sensors and Integrated Systems
Gradient Technology (G.D.O., Inc.)
Gunger Engineering
Hi-Shear Technology Corporation
Hittite Microwave Corporation
Honeywell International, Inc.
HT Microanalytical Inc.
IllinoisRocstar LLC
Imperial Machine & Tool Company
Infoscitex Corporation
Kaman Aerospace Corporation
Keystone Automation, Inc.
Kilgore Flares Company, LLC
L-3 Fuzing & Ordnance Systems
L-3 Interstate Electronics Corporation
Laserlith Corporation
Lasertel, Inc.
Latrobe Specialty Steel Company
Lockheed Martin Company
Logistics Engineering & Systems Integration Services, LLC
Luna Innovations Incorporated
Manufacturing Techniques, Inc. (MTEQ)
Marotta Controls, Inc.
Martin Electronics, Inc.
MaTech
Matrix Systems, Inc.
MaxPower, Inc.

Mayflower Communications Company, Inc.
Mecar USA Inc.
Medico Industries, Inc.
Miltec Corporation
Miltec Machining, Inc.
Mixed Signal Integration
M-Mech Defense, Inc.
MSE Technology Application, Inc.
Mustang Technology Group, L.P.
Nalas Engineering Services, Inc.
Nammo Talley Inc.
Nanomaterials Discovery Corporation
nanoPrecision Products, Inc.
NASCENTTechnology
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
NovaTech
Nuvotronics
Nu-Way Industries, Inc.
Olin Corporation - Winchester Division
Omnitek Partners, LLC
Orbital Research, Inc.
Pacific Scientific Energetic Materials Company
Paramount Metal Finishing
Phillips Plastics Corporation
Physical Sciences, Inc.
Polestar Technologies, Inc.
Polymer Processing Institute
QorTek, Inc.
R4 Incorporated
Raytheon Company
RDM Engineering, LLC
Resodyn Acoustic Mixers
Reynolds Systems, Inc.
Rockwell Collins
Rocky Mountain Scientific Laboratory
Rocky Research
Sabre Consulting and Training LLC
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
Stevens Institute of Technology
STG, Inc.
Strategic Innovative Solutions, LLC
Subsystem Technologies, Inc.
Synepsys Technologies Inc.
Syntronics, LLC
Systema Technologies, Inc.
Tanenhaus and Associates, Inc.
Tanner Research, Inc.
TDA Research, Inc.
Technology & Management International (TAMI), LLC.
Technology Service Corporation
Teledyne RSI
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
Touchstone Research Laboratory, LTD
TPL, Inc.
TRAX International Corporation
Universal Propulsion Company, Inc.
Universal Technical Resource Services, Inc.
University of Florida
University of Hartford
University of Rhode Island, Research Office
UTRON, Inc.
UXB International, Inc.
Veritay Technology, Inc.
Vermillion Incorporated
Victory Solutions, Inc.
West Virginia University Research Corporation
Wilkes University
Woodward HRT, Inc.

Color Key
Executive Committee
Member Organizations



How is it Organized?

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How is it Organized?



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. Tim Portner - 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
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Program Director
Mr. Donald A. Geiss Jr.

STEM Program Manager
Dr. Edward A. Peterson

Technology Manager
Mr. Don Palathinkal

Technology Manager
Ms. Lia Sosa

Technology Manager
Ms. Lynda Ru



Explosives



Pyrotechnics



Enabling Technology



Propellants



Demilitarization



Protection & Survivability



Warheads



Fuze/Sensors



Joint Insensitive Munitions



Why Should I Use It?

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Why Should I Use It?



Features and Benefits

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FEATURES	BENEFITS
Open Membership	Affords opportunity for all to participate by lowering barriers to entry.
Streamlined Acquisition	Existing contract and annual 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 Ordnance Technology Initiatives in anticipation of technology development funding against the tech development plan. 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 and awards.
DoD / Industry, Academia Partnering	Minimizes ordnance technology development duplication across Services, Agencies and Industrial/Academic enterprise components.



Government Testimonials

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"...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



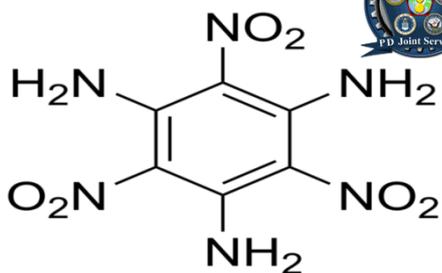
Recent Success Stories

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Advanced Precision Mortar Initiative (APMI) --
Initiated by ONS, rapid acquisition of development effort along with simultaneous production contract, RDTE to fielding in 9 months

Accelerated Improved Intercept Initiative (AI3) --
Initiated by JUONS, RDTE award in 129 days from initial Industry engagement



1,3,5 Tri-amino 2,4,6-trinitrobenzene (TATB) --
Single Point Failure addressed, Joint services engaged through annual cycle, 92 day award from \$\$ received

Defense Protection System (DPS) --
Basket proposal used, funding obligated before expiration, rapid 36 day award -- TARDEC benefitted through collaboration without redundant spending





How do I Use It?

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How do I Use It?



Acquisition Process Options

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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:

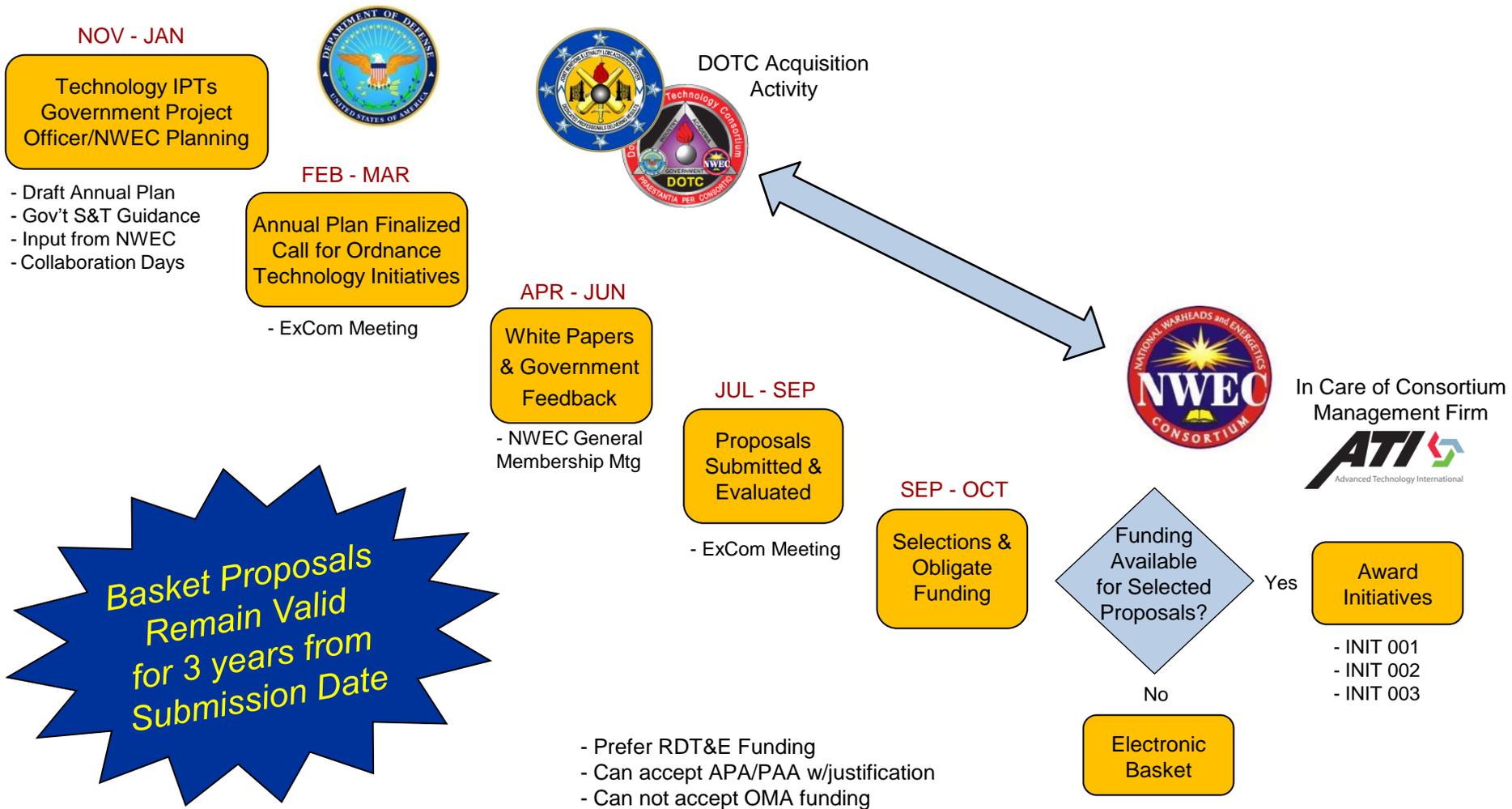
- Government can review current database of selected and basket proposals on NWEC-DOTC web site
 - **Incrementally Fund an Existing Initiative:** There may be an open initiative for a similar requirement that can be collaboratively worked (work can be initiated in less than 30 days)
 - **Award a Basket 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)



DOTC Annual Cycle

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Annual Plan Development to Initiative Award...





Enterprise Statistics

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Enterprise Statistics



DOTC Award Status

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Status as of 2/3/12	10-01 INITs	11-01 INITs	12-01 INITs	Total
Whitepapers	572	357	441	1,977
Proposals	214	144	202	862
Remaining in Basket/Rejected	150 / 13	122 / 5	131 / 20	515 / 40
“Selected” Proposals Awaiting Funding	--	1	34	36
Proposals Funded to Date	51	16	17	186
Awarded to Date	48	13	0	161
Ceiling Awarded to Member (\$M)	\$90.70	\$44.50	\$0	\$515.40



Execution Status

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Report Period: 01 Jan - 03 Feb 2012	Current Initiatives		New Start Initiatives		Initiative Completions		Initiative Adjustment		Member Planned Amount	Members Invoiced Amount
	Qty	Value	Qty	Value	Qty	Value	Qty	Value		
Warheads	22	\$ 44,568,298	1	\$ 868,594	0	\$ -	4	\$ 957,005	\$ 47,893,328	\$ 32,100,437
Explosives	27	\$ 70,659,094	1	\$ 730,400	1	\$ 1,683,527	3	\$ 1,202,900	\$ 65,394,697	\$ 54,317,918
Fuzes	24	\$ 32,793,781	0	\$ -	0	\$ -	2	\$ 196,519	\$ 31,138,279	\$ 27,765,192
Propellants	10	\$ 12,438,642	0	\$ -	0	\$ -	1	\$ 500	\$ 13,397,780	\$ 9,584,188
Pyrotechnics	12	\$ 16,418,381	0	\$ -	0	\$ -	1	\$ 100,000	\$ 14,602,923	\$ 9,264,737
Demilitarization	3	\$ 4,199,370	0	\$ -	0	\$ -	0	\$ -	\$ 4,153,141	\$ 3,934,944
Enabling Technology	29	\$ 52,534,271	1	\$ 257,033	0	\$ -	6	\$ 1,641,353	\$ 34,024,231	\$ 31,232,101
Insensitive Munitions	1	\$ 428,166	0	\$ -	0	\$ -	1	\$ 93,466	\$ 226,632	\$ 83,332
Protection & Surv	1	\$ 35,308,289	1	\$ 35,308,289	0	\$ -	0	\$ -	\$ -	\$ -
Total:	129	\$ 269,348,292	4	\$ 37,164,316	1	\$ 1,683,527	18	\$ 4,191,743	\$ 210,831,011	\$ 168,282,848



DOTC Collaboration Days

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DOTC Collaboration Days



DOTC Collaboration Days

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What are Collaboration Days?

- DOTC or DoD laboratory-hosted events to improve collaboration opportunities between DoD and NVEC throughout the DOTC annual cycle
- Opportunities to bring DOTC to the DoD laboratories and/or their PEO/PM customers

What is the Purpose?

- Facilitate DoD, industry and academia partnerships
- Increase opportunity for Joint and Co-funded initiatives
- Capture DoD technology gaps and challenges
- Leverage DoD and industry resources to maximize return on investment
- Assemble a critical mass of world-class technologists for information exchange leading to better technical solutions



FY12 Calendar of Events

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2012

JANUARY							FEBRUARY							MARCH						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
1	2	3	4	5	6	7			7	8	9	10	11	4	5	6	7	8	9	10
8	9	10	11	12	13	14	12	13	14	15	16	17	18	11	12	13	14	15	16	17
15	16	17	18	19	20	21	19	20	21	22	23	24	25	18	19	20	21	22	23	24
22	23	24	25	26	27	28	26	27	28	29				25	26	27	28	29	30	31
29	30	31																		

APRIL							MAY							JUNE						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
1	2	3	4	5	6	7			1	2	3	4	5						1	2
8	9	10	11	12	13	14	6	7	8	9	10	11	12	3	4	5	6	7	8	9
15	16	17	18	19	20	21	13	14	15	16	17	18	19	10	11	12	13	14	15	16
22	23	24	25	26	27	28	20	21	22	23	24	25	26	17	18	19	20	21	22	23
29	30						27	28	29	30	31			24	25	26	27	28	29	30

JULY							AUGUST							SEPTEMBER						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
1	2	3	4	5	6	7			1	2	3	4						1	2	
8	9	10	11	12	13	14	5	6	7	8	9	10	11	3	4	5	6	7	8	9
15	16	17	18	19	20	21	12	13	14	15	16	17	18	10	11	12	13	14	15	16
22	23	24	25	26	27	28	19	20	21	22	23	24	25	17	18	19	20	21	22	23
29	30	31					26	27	28	29	30	31		24	25	26	27	28	29	30

OCTOBER							NOVEMBER							DECEMBER						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
	1	2	3	4	5	6					1	2	3						1	2
7	8	9	10	11	12	13	4	5	6	7	8	9	10	2	3	4	5	6	7	8
14	15	16	17	18	19	20	11	12	13	14	15	16	17	9	10	11	12	13	14	15
21	22	23	24	25	26	27	18	19	20	21	22	23	24	16	17	18	19	20	21	22
28	29	30	31				25	26	27	28	29	30		23	24	25	26	27	28	29
													30	31						

Event	Dates	Location
PEO Missiles & Space Collaboration Day	26 JAN	Huntsville, AL
DoD Fuze Collaboration	7-8 FEB	Crystal City, VA
DOTC Executive Committee	28 FEB	Phoenix, AZ
AFRL MEMs Industry Days	13-14 MAR	Eglin, FL
JIMTP Spring Review	26-29 MAR	La Plata, MD
Air Armaments Center Weapons Portfolio	3-4 APR	Eglin, FL
NWEC General Membership Meeting	6-7 JUN	Parsippany, NJ
DOTC Executive Committee	20 AUG	Livermore, CA
JIMTP Fall Review	OCT	TBD
DOTC Collaboration Committee	NOV	Crystal City, VA

Collaboration Days



Summary

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Summary



Summary

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DOTC is a healthy and growing enterprise for DoD ordnance technology development, demonstration, and prototyping; DOTC:

- reduces the upfront contracting time and administration burden with streamlined and measured processes
- engages small and non-traditional defense businesses equally among the traditional defense contractors in an open and competitive environment
- enables focused IRAD within industry; and resource leveraging among government, industry and academia

DOTC enables Collaboration, Communication, and Cooperation across the Munitions Enterprise



Questions?

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Q&A?



Points of Contact

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Points of Contact



Points of Contact

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NWEC Management

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Chairman, NWEC Executive Committee
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<http://www.nwec-dotc.org>

DOTC Program Management Office

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