DOTC ENTERPRISE UPDATE

Mr. Donald A. Geiss Jr.
DOTC Program Director
Phone: (973) 724-3386
Email: donald.a.geiss.civ@mail.mil

Mr. Charlie Zisette
NAC Executive Director
Phone: (540) 239-0762
Email: ED@nac-dotc.org

Presentation to:
NDIA Armament Systems Forum
02 May 2017
OUTLINE

• Use of OTA
• DOTC Enterprise
• DOTC FY18 Scope & Technology Areas
• Innovative New Process
• Value Proposition
OTA is not part of the FAR. It is not a CRADA, Cooperative Agreement, grant, or a standard procurement...

- 10 U.S. Code 2371

(a)Additional Forms of Transactions Authorized.—The Secretary of Defense and the Secretary of each military department may enter into transactions (other than contracts, cooperative agreements, and grants) under the authority of this subsection in carrying out basic, applied, and advanced research projects. The authority under this subsection is in addition to authority provided in section 2358 of this title to use contracts, cooperative agreements, and grants in carrying out such projects.
WHAT IS A PROTOTYPE OTA?

A Section 815 OTA Is:

• For prototype projects that are directly relevant to “mission effectiveness of personnel, platforms, systems, components or materials”

• A legally binding instrument encouraging traditional and nontraditional defense contractor participation

• An instrument that allows for negotiation of intellectual property and flexible payment provisions (payable milestones)

• Customizable to fit desired acquisition strategy

Distribution Statement A: Approved for Public Release; Distribution is Unlimited
TWO CONSORTIA-ONE ENTERPRISE

• The National Armaments Consortium (NAC) is a consortium of 525+ organizations encompassing large, medium, and small businesses and academia, including traditional and non-traditional performers in the armaments community.

• The NAC is in a long and very successful partnership with the DoD Ordnance Technology Consortium (DOTC), an OSD chartered consortium made up of DoD’s RDT&E organizations.

• Together, NAC and DOTC constitute an enterprise executing approximately $1.2B in prototyping across a broad portfolio of 12 armaments technology areas.

• In order to streamline acquisition, reduce time to fielding, innovate technologies, and maximize collaboration between the DOD and the armaments industrial base, the Enterprise uses 10 USC 2371b - Other Transaction Agreements.

• The mission is to lead the Armaments Community in collaborating and fielding innovation to support the Nation and its warfighters.
The DOTC Consortium… Partnership to Accelerate Warfighter Superiority

DoD Ordnance Community

- OUSD (AT&L) LW&M
- Department of The Army
- Department of the Navy
- Department of the Air Force
- Special Operations Command
- DARPA
- DTRA
- Other Agencies and Departments

Overarching Agreement for Prototype Other Transactions

National Armaments Consortium

- Defense Contractors
- Small Businesses
- Academic Institutions
- Non Profit Organizations
- Not-for-Profit Organizations
- Non-Traditional Defense Contractors
“Ordinance” Defined

“Ordinance” is the ammunition, armaments, munitions, weapons, systems and related military materiel such as equipment and components that enables the military to achieve combat and mission effectiveness in all warfare environments: air, land, sea, undersea and space. Ordinance to support all of the warfare environments is further defined in the below technology areas:

DOTC Technology Objective Areas
## DOTC Technology Areas – FY18

### Ammunition (AMM)
- Small Caliber
- Medium Caliber
- Large Caliber
- Non-Lethal Ammo
- Mortars
- Grenades
- Logistics
- Other

### Demilitarization (DEM)
- Disassembly of Munitions
- Munitions Recycle, Recovery, and Re-Use
- Munitions Destruction and Final Disposition
- Removal of Energetic Materials from Munitions
- Waste Stream Treatment
- Disposal Logistics
- Other

### Directed Energy Warfare (DEW)
- High Energy Lasers
- Electro-optic
- Radio Frequency
- Multispectral
- Magnetism
- Acoustic
- Particle Beam, Thermal and other Energy modalities
- Prime/Pulse Power
- Beam Forming
- Directed Energy Weaponization
- Other

### Enabling Technologies (ENT)
- Materials
- Manufacturing and Process Technologies
- Modeling and Simulation and Virtual Prototyping
- Precision Guidance
- Power Sources
- Weaponization
- Autonomous Systems
- Soldier and Soldier Weapon Performance
- Other

### Energetic Materials (ENR)
- Explosives
- Propellants
- Pyrotechnics
- Ingredients
- Additive Manufacturing for Energetic Materials
- Other

### Fuzes (FUZ)
- Hard Target Fuze Technologies
- Tailorable Effects Fuze Technologies
- High Reliability Fuze Technologies
- Enabling Fuze Technologies
- Safe & Arm Fuzes
- MEMS
- Fuze Productability
- High G-Force
- Fuze Sensors
- Other

### JointInsensitive Munitions (JIM)
- Threat Detection and Tracking
- Countermeasures, Counter Countermeasures & Anti-Tamper
- IED Detection and Destruction Technology
- Explosive Ordnance Disposal
- Armament Survivability
- Equipment Survivability
- Demolitions
- Active and Passive Armors
- Other

### Protection & Survivability (PAS)
- Air-to-Air
- Air-to-Surface
- Surface-to-Air
- Surface-to-Surface
- Shoulder Launched
- Other

### Rockets, Missiles, and Bombs (RMB)
- Multispectral
- Data Processing and Data Links
- Tactical Cyber
- Electronic Warfare
- GPS Denied
- Intelligence, Surveillance and Reconnaissance
- Command, Control and Networking
- Other

### Sensors & Sensor Systems (SSS)
- Shaped Charge, Explosively Formed Penetrator
- Kinetic Energy
- Multipurpose
- Unitary
- Other

### Warheads/Lethal Mechanisms (WLM)
- Small Caliber
- Grenade Launchers
- Medium Caliber Cannons
- Mortars
- Large Caliber Artillery
- Non-lethal Weapons
- Mechanisms & Effects
- Fire Control
- Accessories
- Electric Weapons
- Area Denial
- Other

### Weapon Systems (WPN)
- High Performance Missile Propulsion
- Minimum Signature Missile Propulsion
- Blast Fragment Warheads
- Anti-Armor Warheads
- Gun Propulsion
- System Level Demonstration
- High Energy Lasers
- Electro-optic
- Radio Frequency
- Multispectral
- Magnetism
- Acoustic
- Particle Beam, Thermal and other Energy modalities
- Prime/Pulse Power
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- Directed Energy Weaponization
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- Blast Fragment Warheads
- Anti-Armor Warheads
- Gun Propulsion
- System Level Demonstration
## FY 18 Initiatives & Funding Summary

<table>
<thead>
<tr>
<th>Technology Objectives</th>
<th># of Sub-Objectives</th>
<th>Confidence Level ($M)</th>
<th>Total ($M)</th>
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<td><strong>Total ($M)</strong></td>
<td><strong>341</strong></td>
<td><strong>$802.42</strong></td>
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Distribution Statement A: Approved for Public Release; Distribution is Unlimited
NAC and DOTC have raised relevance of our Enterprise to key stakeholders

DoD stakeholders participating:

- RD&E Centers
  > AFRL – Munitions (RW), Directed Energy (RD), Sensors (RY), Space Vehicles (RV)
  > NAVSEA - NUWC, NSWC (Dahlgren, Indian Head, Crane, Panama City)
  > NAVAIR – NAWC (China Lake, Lakehurst)
  > Army RDECOM – ARDEC, AMRDEC, ARL, CERDEC, NSRDC

- PEOs and PMs
  > Air Force – PEO Weapons, PEO Space Systems, and PEO Strategic Systems
  > Navy – PEO IWS, PEO Subs, PEO L&MW, MarCorSysCom,
  > Army – PEO Ammo, PEO M&S, PEO Soldier
  > USSOCOM – PEO SOF Warrior, JSOC, PEO SERSE

- Service, OSD, and Agency
  > OSD - AT&L (Acquisition, R&E, DPAP), SCO
  > Air Force – AFLCMC, AFSMC
  > Navy – N9, ASN RDT&E, ONR
  > Marine Corps - MCCDC
  > Army – ASAALT, ARCIC
  > DTRA, DARPA, BMDO, NGIC, MDA
**DOTC Management Organization**

### Executive Committee

<table>
<thead>
<tr>
<th>GOVT. Co-Chair</th>
<th>Mr. Jose Gonzalez</th>
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</thead>
<tbody>
<tr>
<td>NAC Co-Chair</td>
<td>Ms. Diana-Lynn Herbst</td>
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### NAC Directors

<table>
<thead>
<tr>
<th>NAC Executive Director</th>
<th>Mr. Charlie Zisette</th>
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<tbody>
<tr>
<td>NAC Director of Customer Affairs</td>
<td>Mr. George Solhan</td>
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### NAC Consortium Management Firm

<table>
<thead>
<tr>
<th>Program Manager</th>
<th>Ms. Dolly Pelto</th>
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<tbody>
<tr>
<td>Contracts Manager</td>
<td>Ms. Mica Dolan</td>
</tr>
<tr>
<td>Program Support</td>
<td>Mr. Shawn Gore</td>
</tr>
<tr>
<td>Administrative Support</td>
<td>Ms. Lindsey LePine</td>
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### OTA Management

<table>
<thead>
<tr>
<th>Lead Agreements Officer</th>
<th>Ms. Kelly Gorman</th>
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<tbody>
<tr>
<td>Agreements Officer</td>
<td>Mr. Steven Ghazi</td>
</tr>
<tr>
<td>Agreements Officer</td>
<td>Mr. Bill Coolbaugh</td>
</tr>
<tr>
<td>Lead Legal Council</td>
<td>Ms. Denise Scott</td>
</tr>
<tr>
<td>Legal Council</td>
<td>Mr. Jered Leo</td>
</tr>
<tr>
<td>Legal Council</td>
<td>Ms. Kelly Sledgister-Stehle</td>
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### Program Office

<table>
<thead>
<tr>
<th>Senior Management Analyst</th>
<th>Mr. Donald A. Geiss Jr.</th>
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<tbody>
<tr>
<td>Administrative Officer</td>
<td>Mr. James J. Wilson (CTR)</td>
</tr>
<tr>
<td>AOR Management</td>
<td>Ms. Noel Los</td>
</tr>
<tr>
<td>Lead Financial Analyst</td>
<td>Ms. Jennifer Ribeiro (CTR)</td>
</tr>
<tr>
<td>Financial Analyst</td>
<td>Ms. Darlene Hopler</td>
</tr>
<tr>
<td></td>
<td>Ms. Nicole Cohn</td>
</tr>
</tbody>
</table>

### Technology Managers

- **Ammunition (AMM)**
  - Mr. Tim Garry
  - 973-724-9745

- **Demilitarization (DEM)**
  - Ms. Lynda Ru
  - 973-724-4288

- **Joint Insensitive Munitions (JIM)**
  - Mr. Ryan Ordemann
  - 973-724-8742

- **Fuzes (FUZ)**
  - Dr. Jyothi Krishnan
  - 973-724-9669

- **Enabling Technologies (ENT)**
  - Dr. Jyothi Krishnan
  - 973-724-9669

- **Energetic Materials (ENR)**
  - Mr. Ryan Ordemann
  - 973-724-8742

- **Protection & Survivability (PAS)**
  - Mr. Killolkumar Parikh
  - 973-724-9527

- **Rockets, Missiles, and Bombs (RMB)**
  - Dr. Jyothi Krishnan
  - 973-724-9669

- **Weapon Systems (WPN)**
  - Mr. Killolkumar Parikh
  - 973-724-9527

- **Directed Energy Warfare (DEW)**
  - Mr. Killolkumar Parikh
  - 973-724-9527

- **Sensor & Sensor Systems (SSS)**
  - Ms. Lynda Ru
  - 973-724-4288

### NAVY Liaison

- Mr. Butch Burgess (CTR)
  - 813-362-1100

### Air Force Liaison

- Mr. Devin Swanson
  - 850-882-8992

### SBIR Liaison

- Dr. Jyothi Krishnan
  - 973-724-9669
How are you perceived by the customer?

Becoming a trusted advisor gives you a positive discriminator and enhances competitive advantage

Slimy Contractor

Trusted Advisor

Distribution Statement A: Approved for Public Release; Distribution is Unlimited
PROCESS UPDATE

RESPONSE TO VOC AND NEED FOR SPEED
**Enhanced Whitepaper**
- 15 Pages
- Technical
- Cost Estimate
- NT Strategy
- **45 days (22 May 17)**

**Competitive Evaluation**
- Eligible (Good/Acceptable) = Basket
- Ineligible (Unacceptable) = Reject
- **30 days (22 June 17)**

**Customer Selects from Basket**
- Selection Memo w/Rationale
- SOW
- > 22 June 17
- **20 days**

**NAC Member Proposal and Award**
- Cost Proposal
- Funding
- W&R
- Awards as early as August 2017
- **68 days**

- Full cost proposals only submitted after the “Enhanced Whitepaper” is selected for award
- Eliminates five months from the FY17 process
- Potential to have more technical solutions available

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New “Enhanced Whitepaper” Process

- **Streamlined process developed** to address the need for a **RAPID and Easy to Use**
- The new process replaces the whitepaper, technical proposal, and cost proposal with an Enhanced Whitepaper
  - Consists of a technical approach, schedule, Nontraditional strategy and a cost estimate within 15 pages
  - Is the basis for the competitive evaluation that will result in the Enhanced Whitepaper being rated “Good” or “Acceptable” (Eligible - placed in basket for up to 3 years) or “Unacceptable” (Ineligible - not in the basket)
- Enhanced Whitepaper is selected from the basket by the AOR
- DOTC Tech Manager (**Navigator**) is assigned to assist the **AOR** and **NAC** member every step of the way from selection memo through to Award
  - Team will collaboratively develop the SOW
- Following approval of the SOW, a cost proposal and nontraditional warranties and representations will be provided by the NAC member

88 days from Approved Selection Memo to Award
64 days from Approved SOW to Award
DOTC is Planning for the Future

- The DOTC Enterprise anticipates award growth to 200+ awards annually within the next 3 years
- Our average award times have decreased by 30% since GFY15
- DOTC Enterprise Team conducted a thorough “Value Stream Improvement” off-site to address anticipated growth
- Our process improvement plans target reduction in award times to 64 days from SOW approval

DOTC is the “way to go” to bring effective technologies faster to the Warfighter
**Benefits of New Process**

- **NAC Members:**
  - *WIN:* Members only submit SOW, cost proposal and W&R after selection for award, thereby *significantly* reducing B&P cost per submission.
  - *WIN:* Members will receive evaluation feedback for each submission.
  - *WIN:* Streamlined process positions NAC for multiple award cycles per year.

- **Government Customers/AORs:**
  - *WIN:* More technical solutions available for award with increased customer flexibility.
  - *WIN:* Streamlined approach expedites the evaluation processes and requires less resources.
  - *WIN:* Shorter time for awards – Cycle time from solicitation to award will be reduced from 9 months to 4 months.

- **Government Acquisition Team (DOTC/ACC-NJ/ARDEC Legal):**
  - *WIN:* Streamlined selection process reduces workload.
  - *WIN:* Accommodates future growth and increased volume.
  - *WIN:* Well documented selection rationale promotes fair and competitive.
Power of the Network!

- 2200 users among NAC and DOTC
- 4000 on distribution
- 1600 BIDS users
- 53% of GFY16 awards to nontraditional contractors (lead)
- 350 nontraditional NAC members
DOTC is the benchmark for Defense-Industry consortia:

- Never satisfied with the “Current State”
- Committed to Rapid and Effective Prototyping
- 125 new awards in FY17 – 376 active prototype projects
- Expanding Technology Objective Areas to meet customer demand
- 1,300 proposals in the “Basket” for DoD to pull immediately
- 341 new requirements for FY18 ($2.8B)
- Collaborative planning and agile processes allow for well aligned proposals
- Strong Government and Industry infrastructure to ensure your success (websites, help documentation, collaboration events, training sessions)

The success of this program rests with the NAC and DoD Users
DOTC POINTS OF CONTACT

- Government POCs should contact the DOTC Program office directly
- Industry POCs should contact ATI directly and join the NAC
- Visit us at www.nac-dotc.org

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Email: donald.a.geiss.civ@mail.mil

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Mobile: (973) 738-0096  
E-mail: james.j.wilson.ctr@mail.mil

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Email: DCA@nac-dotc.org

Ms. Lindsey LePine (ATI)  
NAC Consortium Mgmt Firm  
Phone: (843) 760-3481  
Email: naccmf@nac-dotc.org
CUSTOMER CARE IS PRIORITY #1

The DOTC Enterprise Team with BG Abramson - Deputy Program Executive Officer Ammunition and Senior Commander Picatinny Arsenal NJ
BACKUP SLIDES
The DOTC Program Office supports OWL prototypes enabling the integration of a non-pyrotechnic, one-way visible, full day/night tracer into current ammunition production products in order to improve warfighter capability, reduce logistical burden, and reduce ammunition cost.

DOTC has supported OWL prototypes for the last 3 years.

The DOTC Annual Plan FY18 contains requirements calling for small scale prototyping with the ability to scale the tracer line to future full qualification quantities (3,000 cartridges / month to 60,000 cartridges / month).
The DOTC Program Office will enable prototypes for inert mass simulators and full-up energetic cartridges applicable to XM1160 High Explosive Guided Mortar (HEGM) Program.

HEGM will provide the maneuver commander an organic precision solution to address non line-of-sight targets, line of sight (LOS) targets beyond organic LOS precision assets, targets in defilade, moving targets and targets that have moved, which cannot be addressed by any other organic assets.

The DOTC Annual Plan FY18 contains HEGM requirements with potential funding of $38M.

**HEGM is a follow on to DOTC’s Accelerated Precision Mortar Initiative (APMI) success story.**
• The DOTC Program Office enables IFPC-2I prototypes to protect ground forces and critical assets from attack by Unmanned Aircraft Systems, cruise missiles; and rockets, artillery, and mortars

• DOTC FY18 Prototypes include surface-to-air missiles capable of effectively defeating rocket, artillery, and mortar (RAM) targets with residual capability against cruise missiles and unmanned aerial systems associated with the IFPC-2I program

• The DOTC FY18 Annual Plan contains multiple requirements for a potential funding of $35M

The DOTC Program Office directly supported the IFPC-2I Program through hosting the IFPC-2I Industry Day at the March 2017 NAC General Membership Meeting
The DOD Ordnance Technology Consortium (DOTC) Program Office enables the U.S. Army Research Laboratory, along with ground combat and wheeled vehicle programs, to improve vehicle and crew survivability through upgrades to underbody protection, gunner protection kits, and blast shields for exposed crew members.

The DOTC Phase III award for $19M to Corvid Technologies LLC., was based on the Small Business Innovation Research (SBIR) Topic: A09-051, “Innovative manufacturing research on forming of large light armor alloy sections resistant to blast and penetration.”

This Phase III contract will transition the methods and tools developed during the SBIR program to the survivability community as well as reduce/supplement test frequency and cost.

The DOTC Program Office facilitates SBIR Phase III awards to mature prototype technologies to accommodate customer needs.
• DOTC Directed Energy (DE) requirements have grown exponentially over the last several years
• The DOTC Annual Plan FY17 contains 28 DE requirements across all three services with an expected funding of $104M and maximum value of $209.3M
• DE requirements support multiple programs utilizing High Power Radio Frequency (HPRF) systems, AC-130 Gunship integration, and various airborne platforms
• Key FY17 DE prototype deliverables include: laser weapon prototypes and laser subsystems, antennas for mobile HPRF systems, and energy storage capacitors

Directed Energy Warfare Systems will be a FY18 DOTC Objective Area