2015 NDIA Armament Systems Forum

The National Armaments Consortium (NAC) Support of Emerging Armaments Technology

Mr. Charles Zisette, Executive Director, NAC
Mr. Donald A. Geiss Jr., Director, DOTC
Baltimore, MD
April 20-22, 2015
www.nac-dotc.org
Agenda

• What is the NAC-DOTC Enterprise

• Who Uses It and Why

• Success Stories

• Why is NAC-DOTC So Successful
DOTC—The Most Successful Consortium in the DoD

• **Innovation** is exponential to number of collaborators
  - 300 Industry/Academic members of the National Armaments Consortium (NAC)
  - Broad Government Agency participation across US Army, Navy, Air Force, Marines, DARPA, OSD, and SOCOM
• **Single Repository** for over 280+ emerging requirements with projected funding level of $605M alone for FY16
• **Collaborative** technology planning and **Competitive** proposal submission
• Established **Rapid** and agile acquisition processes
• **Accelerates** technology through the TRL pipeline for battlefield superiority

*The Warfighter is the Winner*
The DoD Ordnance Technology Consortium

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
Section 845
Other Transaction

National Armaments Consortium

- Defense Contractors
- Small Businesses
- Academic Institutions
- Non Profit Organizations
- Not-for-Profit Organizations
- Non-Traditional Defense Contractors

Distribution A: Approved for Public Release. Distribution is unlimited.
What is the DOTC

**DOTC Annual Cycle Milestones**

- NAC Suggested Topics
- Collaborative Annual Technology Planning
- Request for Ordnance Technology Initiatives
- White Paper and Proposal Submissions
- Project Evaluation, Selection and Award

Streamlined Acquisition
Who Uses DOTC
NAC Offers One-Stop Shopping

- Large knowledge base on controlled website
  - Annual Plan, Road Maps, Proposal Support
  - Capabilities of traditional and non-traditional contractors
- Participate in DoD Forums/Panels
  - JIMTP, Fuze, Energetic Materials, CRADAs, workshops
- Industry Days with DoD
  - Requirements and One-on-Ones
- Provides teaming opportunities with DoD and Industry
- Opportunity to bid on over 280 Government funded requirements and technology gaps
- Single point contracting through SCRA consortium management firm

Unlimited Opportunities to Collaborate and Innovate

Distribution A: Approved for Public Release. Distribution is unlimited.
Why Use DOTC

### U.S. Government
- Access to broad spectrum of traditional and non-traditional contractors
- Source selection integrity preserved
- Incrementally fund projects
- Open dialogue with NAC members until proposal submittal
- Proposals placed in basket for 3 years
- No protests allowed under OTA

### Industry and Academia
- IRAD funds can be used to fund projects
- Enables planning for technology investments
- Reduced B&P costs with use of White Papers before proposal preparation
- Higher visibility into USG requirements
- Open dialogue with the Government until proposal submittal
- Ability to market proposals for 3 years
DOTC Success Stories

DOTC Successes are Found Across Many Prototype Maturity and Complexity Levels

Prototype Complexity

System of Systems

System

Subsystem

Component

Prototype Maturity

TRL 2
Technology Concept

TRL 3
Proof of Concept

TRL 4
Lab Validation

TRL 5
Relevant Validation

TRL 6
Relevant Demonstration

TRL 7
Operational Demonstration

TRL 8
System Qualification

Hyper Velocity Railgun

AI3

LRLAP

APMI

Cryofracture
DEMIL

Area Denial

Active Stabilization

Perchlorate Replacement

TATB

DOTC Success Stories

Distribution A: Approved for Public Release. Distribution is unlimited.
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
- Qualified Source
DOTC Success Stories

Perchlorate Replacement

- Replace Perchlorates in Training Pyrotechnics
- Reduces Risks to Soldiers, the Environment, and Surrounding Communities
- Secretary of the Army Environmental Award Winner

Component

Subsystem

System of Systems

Prototype Complexity

Prototype Maturity

TRL 2 Technology Concept
TRL 3 Proof of Concept
TRL 4 Lab Validation
TRL 5 Relevant Validation
TRL 6 Relevant Demonstration
TRL 7 Operational Demonstration
TRL 8 System Qualification

Distribution A: Approved for Public Release. Distribution is unlimited.
Active Stabilization

- Increases Hit Probability for Small Arms Weapons
- Conducted Live-Fire TRL 5 Type Demonstration with JSSAP (June 2014)
- Led by Non-traditional Defense Contractor
DOTC Success Stories

Long Range Land Attack Projectile (LRLAP)

- 155mm Diameter Rocket-Assisted GPS Guided Projectile Designed to Support Land Attack Operations
- Manufacturing Technology Demonstration

Distribution A: Approved for Public Release. Distribution is unlimited.
120mm Advanced Precision Mortar Initiative (APMI)

- Initiated by ONS
- Rapid Acquisition of Development Effort along with Simultaneous Production Contract
- RDTE to fielding in 9 months
DOTC Success Stories

Cryofracture DEMIL

- Presidential Directive to Demilitarize Anti-Personnel Land Mines
- DOTC - A Key Enabler to Rapidly Demonstrate and Transition a Prototype Process for a Critical DEMIL Requirement

Component → Subsystem → System → System of Systems → Prototype Complexity

TRL 2 Technology Concept
TRL 3 Proof of Concept
TRL 4 Lab Validation
TRL 5 Relevant Validation
TRL 6 Relevant Demonstration
TRL 7 Operational Demonstration
TRL 8 System Qualification

Distribution A: Approved for Public Release. Distribution is unlimited.
Accelerated Improved Intercept Initiative (AI3)

- System of Systems Prototype
- Initiated by JUONS
- RDTE Award in 129 Days from Initial Industry Engagement
- **Successful Demonstration**
Hyper Velocity Projectile/ Railgun

- Largest Navy Weapons Program
- Multi-mission Capable for Offense and Defense
- Complex Systems of Systems Prototype
DOTC Success Stories

**Area Denial**

- Army ACAT1A Program
- FASCAM Replacement
- New Technology Concepts, not Variants of Current Solutions
- **Industry Day Collaboration**

**Prototype Complexity**

- System of Systems
- System
- Subsystem
- Component

**Prototype Maturity**

- TRL 2: Technology Concept
- TRL 3: Proof of Concept
- TRL 4: Lab Validation
- TRL 5: Relevant Validation
- TRL 6: Relevant Demonstration
- TRL 7: Operational Demonstration
- TRL 8: System Qualification

Distribution A: Approved for Public Release. Distribution is unlimited.

---

**DOTC Success Stories**

- **Army ACAT1A Program**
- **FASCAM Replacement**
- **New Technology Concepts, not Variants of Current Solutions**
- **Industry Day Collaboration**

**Distribution A: Approved for Public Release. Distribution is unlimited.**
Why is DOTC so Successful

• DOTC has become an industry benchmark for Defense consortia
  - Since 2000 over $1.5B total funding, 600+ awards and 300+ NAC members
• Processes – Established and disciplined approach
• Continuous improvement culture
• Unique “can do” attitude
• Strong Government and Industry infrastructure to ensure your success (websites, help documentation, collaboration events, training sessions)
• Leadership support

Our Focus is Technical Innovation and Broad Collaboration in Support of the Warfighter
Come Join Our Team!

- Government POCs should contact the DOTC Program office directly
- Industry POCs should contact SCRA directly and join the NAC
- Visit us at [www.nac-dotc.org](http://www.nac-dotc.org)

Mr. Donald A. Geiss Jr.  
DOTC Program Director  
Phone: (973) 724-3386  
Mobile: (973) 534-4582  
Email: donald.a.geiss.civ@mail.mil

Mr. Jamie Wilson (CTR)  
Senior Program Analyst  
Phone: (973) 724-2379  
Mobile: (973) 738-0096  
E-mail: james.j.wilson.ctr@mail.mil

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

Ms. Lindsey LePine  
NAC Consortium Mgmt Firm  
Phone: (843) 760-3481  
Email: naccmf@nac-dotc.org

Distribution A: Approved for Public Release. Distribution is unlimited.