

2015 ARMAMENT SYSTEMS FORUM

Ensuring Continued Superiority and Readiness Through Balanced Investments:

- *Evolving Legacy System Capability*
- *Realizing Unconventional and Emerging Armaments*



TOPICS INCLUDE:

- AMMUNITION
- DIRECT & INDIRECT FIRE GUNS
- NON-LETHAL TECHNOLOGY
- EMERGING TECHNOLOGIES
- FIRE CONTROL
- MODELING AND SIMULATION
- ARMAMENT SYSTEMS
- WARHEADS AND ENERGETICS
- MISSILES AND ROCKETS

BALTIMORE MARRIOTT ▶ BALTIMORE, MD

APRIL 20-22, 2015
WWW.NDIA.ORG/MEETINGS/5590
EVENT #5590

MONDAY APRIL 20 2015

12:00 pm - 4:45 pm **Registration Open**

1:00 pm - 4:45 pm **Tutorial Sessions**

	Tutorials	Tutorials
1:00 pm - 2:45 pm	Manufacturing Readiness Assessments of Technology Development Projects <i>Mr. Mark Serben, U.S. Army RDECOM-ARDEC</i>	Use of PRODAS 6 DoF with Trade Study Trajectory Module to Simulate Long Range Dispersion <i>Mr. Alan Hathaway, Arrow Tech</i>
3:00 pm - 4:45 pm	Cutting Down the Kick: Understanding and Managing Large Caliber Recoil <i>Dr. Eric Kathe, Benet Labs</i>	

TUESDAY APRIL 21 2015

7:00 am - 6:30 pm **Registration Open**

7:00 am - 8:00 am **Continental Breakfast**

8:00 am - 8:15 am **Welcome and Administrative Updates**

- ▶ Mr. Dave Broden, *President, Broden Resource Solutions, LLC; Chair, NDIA Armaments Division*
- ▶ Mr. Matt Solverson, *Director, Medium Caliber Ammunition Marketing and Business Development General Dynamics Ordnance and Tactical Systems; Chair, GARM Committee, NDIA Armaments Division*
- ▶ Mr. Bryan Bockmon, *CEO, Rocky Mountain Scientific Laboratory*

8:15 am - 9:00 am **Keynote Speaker**

- ▶ Mr. Jose Gonzalez, *Deputy Director, Land Warfare and Munitions, Strategic and Tactical Systems, OUSD ATL (US)*

9:00 am - 9:45 am **U.S. Air Force Keynote**

- ▶ Mr. John Wilcox, *Director, Munitions Directorate, Air Force Research Laboratory*

9:45 am - 10:30 am **Current and Future State of Surface Ship Weapons**

- ▶ CAPT Mike Ladner, USN, *PEO IWS3 - Surface Ship Weapons, U.S. Navy*

10:30 am - 10:45 am **Networking Break**

10:45 am - 11:15 am **NDIA Legislative Update**

- ▶ Mr. Will Goodman, *Vice President, Policy, NDIA*

11:15 am - 11:45 am **Competition in Armaments Acquisition Strategies is Essential to Private Investment in Armament Technology**

- ▶ Mr. David Siggers, *President, Spectra Technologies, LLC*

11:45 am - 1:00 pm **Networking Luncheon**

TUESDAY APRIL 21 2015 CONTINUED

- 1:00 pm - 1:30 pm** **National Armaments Consortium (NAC) Support of Emerging Armaments Technology**
▶ Mr. Charles Zisette, *Executive Director, NAC*
▶ Mr. Don Geiss, Jr., *Director, DOTC*
- 1:30 pm - 1:50 pm** **Lightweighting of Large Caliber Weapons - Present and Future (17342)**
▶ Dr. Andrew Littlefield, *U.S. Army, RDECOM-ARDEC*
- 1:50 pm - 2:10 pm** **Constructing Common Fire Control Across Weapon Platforms (17345)**
▶ Mr. Michael Wright, *U.S. Army, RDECOM-ARDEC*
- 2:10 pm - 2:30 pm** **Deep Futures of Small Arms Study (17384)**
▶ Mr. Jason Paugh, *Battelle*
- 2:30 pm - 2:50 pm** **Lethality Technologies - 2025 and Beyond**
▶ Mr. Michael Zoltoski, *ARL Weapons and Materials Research Directorate, Lethality Division*
- 2:50 pm - 3:10 pm** **Extended Area Protection & Survivability Gun Army Technology Objective Update (17346)**
▶ Mr. Manfredi Luciano, *U.S. Army, ARDEC*
- 3:10 pm - 3:30 pm** **Networking Break**
- 3:30 pm - 3:50 pm** **UWB Radiating Using Explosive Pulse Power from M4 Rifle (17331)**
▶ Mr. James Burke, *U.S. Army, RDECOM-ARDEC*
- 3:50 pm - 4:10 pm** **Electrothermal-Chemical Gun Systems Utilizing Novel Electric Solid Propellants (17385)**
▶ Mr. Tim Manship, *Digital Solid State Propulsion*
- 4:10 pm - 4:30 pm** **81mm Mortar Enhanced Warhead Development Process (17408)**
▶ Mr. Ryan Hooke, *U.S. Army, RDECOM-ARDEC*
- 4:30 pm - 5:00 pm** **LCS Naval Strike Missile Demonstration**
▶ CDR Eric Cash, USN, *U.S. Navy*
- 5:00 pm - 5:15 pm** **Closing Remarks**
▶ Mr. Dave Broden, *President, Broden Resource Solutions, LLC; Chair, NDIA Armaments Division*
- 5:15 pm - 6:30 pm** **Networking Reception**

WEDNESDAY APRIL 22 2015

7:00 am - 4:20 pm **Registration Open**

7:00 am - 8:00 am **Continental Breakfast**

8:00 am - 4:20 pm **Concurrent Sessions**

	Guns & Missiles	Unconventional & Emerging Armaments
	Ammunition Session Chairs: Mr. Darrel Morris, <i>Systima Technologies, Inc.</i> Mr. Mark Serben, <i>U.S. Army RDECOM-ARDEC</i>	Non-Lethal Technology Session Chair: Mr. Brian Sullivan, <i>American Rheinmentall Munitions, Inc.</i>
8:00 am - 8:20 am	17400 - Advanced Capability Extended Range Mortar (ACERM) <i>Mr. Luke Steelman, Naval Surface Warfare Center - Dahlgren Division</i>	JNLWP Next-Generation Non-Lethal Directed Energy Weapons Update <i>Mr. Dave Law, JNLWD</i>
8:20 am - 8:40 am	17409 - Precision Guidance Kit (PGK) Program Update <i>Mr. Robert Hunter, Orbital ATK Armament Systems</i>	
8:40 am - 9:00 am	17403 - Single Increment Loading Process for Pressed Explosives <i>Mr. John Sequeira, U.S. Army, ARDEC</i>	17356 - Skunk: The New Malodorant Supporting Non-Lethal Missions Across the Spectrum of Conflicts <i>Mr. Stephen Rust, Mistral, Inc.</i>
9:00 am - 9:20 am	17485 - The Development and Testing of the Improved Kinetic Energy Electronic Time (IKE-ET) Round <i>Mr. Geoffrey Bland, NSWC Dahlgren</i>	17369 - Combining Multiple Methods of Less-Lethal Technologies to Overcome Potential Countermeasures <i>Mr. Howard Kent, Armor Development Group, LLC</i>
9:20 am - 9:40 am	25mm PGU-47/U Ammunition <i>Mr. Scott Smith, NSWC Dahlgren</i>	17375 - Single Munition Variable Velocity Non-Lethal Ballistic System for Fires Near the Muzzle to More Than 100 Meters <i>Dr. Jeffrey Widder, Battelle</i>
9:40 am - 10:00 am	Networking Break	
	Direct and Indirect Fire Guns Session Chairs: Mr. John Altrichter, <i>BAE Systems</i> Mr. Rollie Dohrn, <i>ATK</i>	Emerging Technologies Session Chair: Dr. Barton Halpern, <i>U.S. Army ARDEC</i>
10:00 am - 10:20 am	17390 - Integrating Dynamic System Simulation into the Design Process for an Aircraft Mounted Gun's Recoil System <i>Mr. Doug Ramers, NSWC Dahlgren</i>	17336 - NATO Weapons and Sensors Working Group Updates <i>Dr. Bart Halpern, U.S. Army ARDEC</i>
10:20 am - 10:40 am	17341 - Novel Mortar Blast Attenuation <i>Mr. Anthony Cannone, U.S. Army Benet Laboratories</i>	17383 - Potential Development Path Integrating Fire Control Radar for Advanced Combat Optic Displays <i>Mr. Howard Kent, Armor Development Group, LLC</i>

WEDNESDAY APRIL 22 2015 CONTINUED

	Guns & Missiles	Unconventional & Emerging Armaments
	Direct and Indirect Fire Guns Continued Session Chairs: Mr. John Altrichter, <i>BAE Systems</i> and Mr. Rollie Dohrn, <i>ATK</i>	Emerging Technologies Continued Session Chairs: Dr. Barton Halpern, <i>U.S. Army ARDEC</i>
10:40 am - 11:00 am	17381 - The Recoil Mortar System, Where We Have Been, and Where We Are Going. <i>Mr. Stephen Rust, Mistral, Inc.</i>	Additive Manufacturing Methods, Techniques, Procedures & Applications - Enabling Technologies for Military Applications <i>Mr. Ralph Tillinghast, U.S. Army, ARDEC</i>
11:00 am - 11:20 am	Recoil Elimination For High Velocity Guns - An Analysis of Alternatives <i>Dr. Eric Kathe, ARDEC-Benet Labs</i>	USAF DE Weapons Program Overview
11:20 am - 11:40 am	Retaining Lethality Overmatch through Science & Technology <i>Mr. Joe Pelino, U.S. Army ARDEC</i>	
11:40 am - 1:00 pm	Networking Luncheon	
	Fire Control Session Chairs: Mr. Ralph Tillinghast, <i>U.S. Army ARDEC</i> and Mr. Jeff Caratelli, <i>Alcoa Defense</i>	Missiles and Rockets Session Chairs: Mr. Steve Piper, <i>Piper Pacific International</i> and Mr. Howie Wendt, <i>NSWC-Dahlgren</i>
1:00 pm - 1:20 pm	Paladin Secure Trajectory Enhancement (PaSTE) <i>Mr. Edward Gilsky, U.S. Army, ARDEC</i>	17382 - Safety and Interim Fatigue Testing of a Domestic RPG Systems <i>Mr. Christopher Perhala, Battelle</i>
1:20 pm - 1:40 pm	Exploring Next Generation Fire Control User Interfaces <i>Mr. David Musgrave, U.S. Army ARDEC</i>	17410 - Shoulder Launched Munitions (SLM) Military Operations in Urban Terrain (MOUT) Advanced Technology Objective (ATO) <i>Mr. Stephen Ginetto, U.S. Army, ARDEC</i>
	Fire Control Continued Session Chairs: Mr. Ralph Tillinghast, <i>U.S. Army ARDEC</i> and Mr. Jeff Caratelli, <i>Alcoa Defense</i>	Armament Systems Session Chairs: Mr. Dave Smith, <i>U.S. Army ARDEC Benet Labs</i> and Mr. Mike Pattison, <i>Meggitt Defense Systems</i>
1:40 pm - 2:00 pm	17461 - LIDAR Wind Sensing for Fire Control Applications <i>Mr. Tomas Bober, U.S. Army, ARDEC</i>	17407 - Wireless and Modular Test Equipment Design for Weapon System Sustainment <i>Mr. Daniel Tagliente, U.S. Army, ARDEC</i>
2:00 pm - 2:20 pm	17326 - Ammunition Data Link for M256 Cannon <i>Mr. David Smith, U.S. Army Benet Laboratories</i>	17337 - Precision Guidance Kit (PGK) Power Electronics Module Gun Launch <i>Mr. Miroslav Tesla, U.S. Army, ARDEC</i>
2:20 pm - 2:40 pm	17344 - Effect of the Internet-Of-Things on Fire Control and Weapon Systems <i>Mr. Ralph Tillinghast, U.S. Army, ARDEC</i>	17405 - HERO Primer <i>Mr. Jason Mishock, U.S. Army</i>
2:40 pm - 3:00 pm	Networking Break	

WEDNESDAY APRIL 22 2015 CONTINUED

	Guns & Missiles
	Armament Systems Continued Session Chairs: Mr. Dave Smith, <i>U.S. Army ARDEC Benet Labs</i> and Mr. Mike Pattison, <i>Meggitt Defense Systems</i> U.S. Citizens Only
3:00 pm - 3:20 pm	17487 - 30mm Linear Linkless Ammunition Handling Technology in a Remote Weapon Station <i>Mr. Josh Hearn, Meggitt Defense Systems</i>
3:20 pm - 3:40 pm	U.S. Navy Railgun Program Update <i>Mr. Ben McGlasson</i> <i>CDR Jason Fox, NSWC Dahlgren</i>
3:40 pm - 4:00 pm	17486 - Railgun Autoloader <i>Mr. Larry Pollard, Meggitt Defense Systems, Inc.</i>
4:00 pm - 4:20 pm	U.S. GOVERNMENT ONLY EXACTO Gun Launched Guided Bullet Weapon System <i>Mr. Bruce Winker, Teledyne Scientific</i> <i>Mr. Laurent Duchesne, Draper Laboratory</i>
4:20pm	Conference Adjourns

ADDITIONAL AUTHORS

17337 Mr. Eric Marshall Mr. Michael Hollis	17385 Dr. Wayne Sawka Dr. Shae Williams Mr. Dave Pfendler Mrs. Trisha Buescher
17344 Mr. Michael Wright Mr. Thomas Nealis	17390 Mr. Michael Canaday Ms. Sabrina Lau
17345 Mr. Ralph Tillinghast Mr. Ross Arnold	17403 Mr. John Centrella
17369 Dr. Jeffrey Widder Dr. Timothy Strand Mr. John McCann	17407 Mr. Ryan Nielsen Mr. Josh Stapp Mr. William Bartell
17375 Mr. Christopher Perhala	17408 Mr. Andrew Mock
17381 Mr. Roy Lipsitz	17410 Mr. Andrew Moramarco Mr. Bhuvanesh Thoguluva
17383 Dr. Ram Naranyan Mr. Jeremy Sarao	17487 Mr. Kevin Ching

NOTES

ARMAMENT DIVISION CHAIR

Mr. Dave Broden
Broden Resource Solutions
dbroden@brsbis.com

GUNS, AMMUNITION, ROCKETS & MISSILES COMMITTEE CHAIR

Mr. Matt Solverson
General Dynamics
Matthew.Solverson@gd-ots.com

UNCONVENTIONAL EMERGING TECHNOLOGY ARMAMENT SYSTEMS COMMITTEE CHAIR

Mr. Daniel Hartman
Spectra Technologies
Dan.hartman@spectra-tech.net

NDIA PLANNING TEAM

Mrs. Britt Sullivan, CMP
Director, Operations
bsullivan@ndia.org
(703) 247-2587

Ms. Rebecca Danahy
Meeting Planner, Operations
rdanahy@ndia.org
(703) 247-2561

