



2017

**Armament Systems Forum &
Firing Demonstration**

**“Shaping the Armament Enterprise to Meet
Evolving Global Requirements”**

Agenda

**May 1-4, 2017
Fredericksburg Expo & Conference Center
Fredericksburg, VA**

MONDAY, MAY 1, 2017

12:00 PM – 5:00 PM	Exhibitor/Poster Move-in
12:00 PM – 5:30 PM	Registration Open
1:00 PM – 5:30 PM	Tutorial Sessions

Time	Tutorial A	Tutorial B
1:00 PM – 2:30 PM	Insensitive Munitions Requirements, Technology, and Testing Dr. Ernie Baker, <i>NATO MSIAC</i>	ARDEC Tissue Damage Model - An Unclassified Damage Model for Use by Industry Mr. Gavin McFarland, <i>Mechanical Engineer, U.S. Army ARDEC</i>
2:30 PM – 4:00 PM	Kistler Transducer Calibration and Application Mr. Richard Cadille, <i>Kistler</i>	Lead Free Primer Formulation and Manufacturing Solutions for Small Caliber Ammunition - Board <ul style="list-style-type: none"> • Mr. Dan Mansfield, <i>Orbital ATK Lake City</i> • Mr. Anthony Hawthorne, <i>ARDEC Project Engineer, Project Manager Maneuver Ammunition Systems, U.S. Army</i> • Mr. Jeremy Mills, <i>Winchester</i> • Mr. Jared Smith, <i>Fiocchi</i> • Mr. Peter Spatz, <i>RUAG</i> • Mr. Bruce Webb, <i>NAMMO</i>
4:00 PM – 5:30 PM	Large Caliber Cannon Technology Shortfalls-Opportunities for Government & Industry Collaboration Dr. Joseph Kapp, <i>U.S. Army ARDEC</i>	

TUESDAY, MAY 2, 2017

7:00 AM – 6:30 PM	Registration Open
7:00 AM – 8:00 AM	Networking Breakfast
8:00 AM – 8:10 AM	Welcome and Administrative Announcements <ul style="list-style-type: none"> • Mr. Dave Broden, <i>NDIA Armament Division Chair; President, Broden Resource Solutions, LLC</i>
8:10 AM – 8:15 AM	NDIA Welcome <ul style="list-style-type: none"> • CAPT Bruce Roulstone, <i>USN (Ret), Vice President, Program Development, NDIA</i>
8:15 AM – 8:45 AM	DoD Keynote Address <ul style="list-style-type: none"> • Mr. Vincent Sabio, <i>Program Manager, Strategic Capabilities Office, DoD</i>
8:45 AM – 9:15 AM	Keynote Address <ul style="list-style-type: none"> • Mr. John Hedderich, III, <i>Director, U.S. Army, ARDEC</i>
9:15 AM – 9:45 AM	U.S. Army Keynote Address <ul style="list-style-type: none"> • COL William Nuckols, <i>USA, Director, Mounted Requirements Division, U.S. Army</i>
9:45 AM – 10:15 AM	Networking Break - Exhibit Hall

10:15 AM - 10:45 AM	U.S. Army Special Operations Command Keynote Address <ul style="list-style-type: none">• COL Samuel Ashley, USA, G-8, <i>U.S. Army Special Operations Command</i>
10:45 AM - 11:30 AM	Awards Presentation Small Arms Awards <ul style="list-style-type: none">• Chinn Award: Mr. Dan Shea, Phoenix Defense• Hathcock Award: Mr. Todd Hodnett, Accuracy 1st, Inc.• Ambrose Award: Oehler Research, Inc. GARM Awards <ul style="list-style-type: none">• Trifiletti Award: Mr. Mike Till, NSWCCD E Department
11:30 AM - 1:00 PM	Luncheon - Exhibit Hall
1:00 PM - 1:30 PM	U.S. Navy Keynote Address <ul style="list-style-type: none">• Dr. John Burrow, <i>Navy Research, Development, Test and Evaluation</i>
1:30 PM - 2:00 PM	PEO - Ammunition Presentation <ul style="list-style-type: none">• Mr. Jim Shields, <i>Program Executive Officer, PEO Ammunition</i>
2:00 PM - 2:30 PM	DARPA Presentation <ul style="list-style-type: none">• Mr. Jerome Dunn, <i>Science & Technology Program Officer, Defense Advanced Research Projects Agency</i>
2:30 PM - 3:00 PM	Networking Break - Exhibit Hall
3:00 PM - 3:30 PM	Views from Congress on Acquisition Reform Presentation <ul style="list-style-type: none">• Mr. Jeremy Hayes, <i>Professional Staff, Section 809 Panel on Streamlining and Codifying Acquisition, Former Professional Staff Member, Senate Armed Services Committee</i>
3:30 PM - 4:00 PM	Guest Speaker <ul style="list-style-type: none">• Mr. Dan Shea, <i>General Director, Phoenix Defense/Small Arms Defense Journal</i>
4:00 PM - 4:30 PM	Guest Speaker <ul style="list-style-type: none">• David Law, <i>Technology Chief, Joint Non-Lethal Weapons Directorate (JNLWD)</i>
4:30 PM - 5:00 PM	DOTC <ul style="list-style-type: none">• Mr. Charles Zisette, <i>NAC/DOTC</i>
5:00 PM - 5:20 PM	Mandatory Meeting for All Companies Participating in the Firing Demonstration on Thursday (Entrance of the Exhibit Hall)
5:00 PM - 6:30 PM	Networking Reception - Exhibit Hall

Adhesives, Sealants and Precision Application Equipment (19174)

- Mr. Harry Arnon, *Hernon Manufacturing*

Precision Small Arms and Optics Adaptation to Remote Turret Use Via Ocular Camera (19188)

- Mr. Howard Kent, *Armor Development Group, LLC*

Secondary Flash Reduction Through Weapon & Ammunition Loading Optimization (19197)

- Mr. Howard Kent, *Armor Development Group, LLC*

Modernization of Copper Cylinders for M4/M16M249 Firing Pin Indent Testing (19262)

- Mr. Thomas Grego, *U.S. Army ARDEC*

Improved Bore Erosion Gaging for M4A1 (19263)

- Mr. Adam Foltz, *U.S. Army ARDEC*

Lead Free Primer Formulation and Manufacturing Solutions for Small Caliber Ammunition (19277)

- Mr. Anthony Hawthorne, *U.S. Army, PM-MAS*

Small Arms Signature Reduction in the Near IR and Visible Regions (19283)

- Dr. Frederick Long, *U.S. Army ARDEC*

Weapon Reliability Evaluation by Model Analysis (19339)

- Mr. Terence Rice, *U.S. Army ARDEC*

Effects of Production Techniques on Primer Performance (19362)

- Mr. Thomas Gmyrek, *U.S. Army ARDEC*

M4/M16 Conical Bolt Solution to Commonly Seen Malfunctions in Harsh Environments (19385)

- Mr. Michael Blank, *FRDI, LLC*

Material Models -- Elastic, Plastic, Ductile Damage, and Shear Damage (19396)

- Mr. Mark Lee, *Orbital ATK*

State of Material -- Material and Hardness Affect Assembly, Misfires, Leakers, Dropped Primers, Case Rupture, Bullet Pull, Extraction, Terminal Ballistics (19398)

- Mr. Mark Lee, *Orbital ATK*

Application of Energetic Materials in Small Arms with Enhanced Ballistic Breaching Capabilities (19399)

- Mr. Ross Nellums, *Rocky Mountain Scientific Laboratory*

Thermal Isolation/Barrier for Small Caliber Weapons (19400)

- Mr. Adam Foltz, *U.S. Army ARDEC*

Development of Material Characterization Methods for Next Generation Weapon Barrel Requirements (19404)

- Mr. Adam Foltz, *U.S. Army ARDEC*

Closed Loop Aimpoint Correction for Small Arms Mounts (19416)

- Dr. Mark Thoreson, *NSWC Crane*

Using MATLAB to Obtain Bullet Dimensions (19421)

- Mr. Kenneth Hohnerker, *U.S. Army ARDEC*

The Effects of Rifling Twist on Projectile Launch using Explicit Finite Element Analysis (19428)

- Mr. Michael Cataldi, *U.S. Army ARDEC*

Evaluation of Terminal Ballistics Modeling using the Peridynamic Method (19430)

- Mr. Raymond Chaplin, *U.S. Army ARDEC*

Using MATLAB to Mesh Barrel Rifling (19434)

- Mr. Kenneth Hohnerker, *U.S. Army ARDEC*

Impact Sensitivity Induced in Thin Film Nanoenergetics for Small Arms Primers

- Mr. Daniel Yates, *Spectre Enterprises*

WEDNESDAY, MAY 3, 2017

- 7:00 AM – 5:00 PM** **Registration Open**
- 7:00 AM – 7:30 AM** **Networking Breakfast**
- 7:30 AM – 7:40 AM** **Administrative Announcements**
- Mr. Brian Berger, *Chairman, Small Arms Committee; Global Technologies for Defense and Security America Corp.*
- 7:40 AM – 8:40 AM** **Session I: MCSC PM Weapons**
- COL Michael A. Manning, USMC, *USMC PM Infantry Weapon Systems*
- 8:40 AM – 9:40 AM** **Session II: PM Soldier Weapons**
- Chair: COL Brian Stehle, USA, *PM Soldier Weapons*
- LTC Loyd Beal, III, USA, *Product Manager, Crew Served Weapons*
 - LTC Steven Power, USA, *Product Manager, Soldier Weapons*
- 9:40 AM – 10:10 AM** **Networking Break – Exhibit Hall**
- 10:10 AM – 11:10 AM** **Session III: PM MAS**
- Chair: COL Moises Gutierrez, USA, *Project Manager, Maneuver Ammunition Systems*
- LTC John Masternak, USA, *Product Manager, Maneuver Ammunition Systems*
 - Mr. Christopher Seacord, *Product Manager, Maneuver Ammunition Systems*
- 11:10 AM – 12:10 PM** **Session IV: NATO Weapons and Sensors Working Group Panel Discussion**
- Chair: Dr. Barton Halpern, *NATO Weapon and Sensor Group Chairman*
- Mr. Mark McFadden, *JSSAP, U.S. Army ARDEC*
 - Dr. David Dye, *Naval Surface Warfare Center, Crane Division*
 - Mr. Adam Jacob, *U.S. Army ARDEC*
 - Mr. David Long, *Naval Surface Warfare Center, Crane Division*
 - Mr. Wayde Thomka, *PM Soldier Sensors and Lasers, U.S. Army*
 - Mr. Hendrik Vercruyssen, *Belgian Defence*
 - CWO John Yoshida, *Soldier Systems Program Management (DSSPM) Canadian Armed Forces*
- 12:10 PM – 1:10 PM** **Networking Luncheon**
- 1:10 PM – 2:10 PM** **Session V: PM Soldier Sensors & Lasers**
- Co-Chair: Mr. Lloyd Luedtke, *PM Soldier Sensors and Lasers*
- Co-Chair: Mr. Wayde Thomka, *Technology Management Director, PM Soldier Sensors and Lasers*
- 2:10 PM – 3:10 PM** **Session VI: JSSAST Panel**
- Chair: Mr. Augustine Funcasta, *U.S. Army RDECOM-ARDEC*
- Col Christopher Deguelle, USAF, *U.S. Air Force Security Forces Center*
 - Mr. Craig LaMudge, *U.S. Coast Guard*
 - CDR Christopher England USN, *N96C, Naval Surface Warfare*
 - LTC Mark Owens, USA, *PEO SOF Warrior*
 - COL Kurt “Travis” Thompson, USA, *Soldier Requirements Division*
 - Mr. Christopher Woodburn, *Maneuver Branch Marine Corps Capabilities Development Directorate*
- 3:10 PM – 3:40 PM** **Networking Break – Exhibit Hall**
- 3:40 PM – 5:00 PM** **Session VII: JSSAP Session**
- Chair: Mr. John Edwards, *U.S. Army RDECOM-ARDEC*
- 3:40 PM – 4:00 PM** **Optimization of Machine Gun Barrels Using Additive Manufacturing (19254)**
- Mr. Adam Jacob, *U.S. Army ARDEC*
- 4:00 PM – 4:20 PM** **JSSAP Science and Technology Advisory Council (19258)**
- Dr. Barton Halpern, *U.S. Army ARDEC*

WEDNESDAY, MAY 3, 2017 CONTINUED

- 4:20 PM – 4:40 PM** **Measurement and Quantification of Blowback Resultant of Suppressor Use in Small Arms (19270)**
 • Mr. Adam Jacob, *U.S. Army ARDEC*
- 4:40 PM – 5:00 PM** **One-Way Luminescence (OWL) for Small-Caliber Ammunition (19402)**
 • Mr. William Battistelli, *U.S. Army ARDEC*
- 5:00 PM** **Adjourn**

THURSDAY, MAY 4, 2017

- 7:00 AM – 12:15 PM** **Registration Open**
- 7:00 AM – 8:00 AM** **Networking Breakfast**
- 8:00 AM – 8:10 AM** **Administrative Announcements**
 • Mr. Brian Berger, *Chairman, Small Arms Committee; Global Technologies for Defense and Security America*

	Session VIII: Ammunition Session Chair: Dr. Dion Serben, PhD, NSWC IHEODTD	Session IX: Related Enabling Technology and Modeling and Simulation (RETMS) Session Chair: Mr. Raymond Chaplin, ME, ARDEC
8:10 AM – 8:30 AM	.50 Caliber Baseline Study Overview, Results, and Emerging Requirements (19170) • Mr. Stephen McFarlane, <i>U.S. Army, PMMAS</i>	Test Methods for Quantitative Small Arms Flash Measurements (19406) • Dr. David Dye, <i>NSWC Crane</i>
8:30 AM – 8:50 AM	The Effects of Propellant Position on Small Caliber Ballistic Performance (19293) • Ms. Connie Lusto, <i>U.S. Army, ARDEC</i>	Development of Standardized Test Methods for Quantitative Small Arms Thermal Signature Measurements (19407) • Dr. David Dye, <i>NSWC Crane</i>
8:50 AM – 9:10 AM	Factors Affecting Dispersion of M118LR Sniper Ammunition (19393) • Mr. Zachary Krogstad, <i>U.S. Army ARDEC</i>	Studies on Composition and Manufacturing Process for 5.56mm Tracer Ammunition (19420 and 19433) • Mr. Daniel Mansfield, <i>Orbital ATK</i>
9:10 AM – 9:30 AM	Maintaining Overmatch and Standardization for Future NATO Small Arms (19394) • Mr. David Zhou, <i>Independent</i>	
9:30 AM – 9:50 AM	Advances in 6.5mm and 7.62mm Cased Telescoped Small Arms Systems (19423) • Mr. Paul Shipley, <i>Textron Systems/AAI Corporation</i>	Suppressed Upper Receiver (SURG) Testing Methods (19422) • Mr. Caleb McGee, <i>NSWC Crane</i>
9:50 AM – 10:10 AM	Design and Implementation of Reduced Range Training Ammunition (19429) • Mr. Raymond Chaplin, <i>U.S. Army ARDEC</i>	Improving 5.56 Tracer Ammunition Dispersion (19435) • Mr. Andy Boman, <i>Orbital ATK</i>
10:10 AM – 10:30 AM	Enhanced Training with Small Caliber Plastic Short Range Training Ammunition (19468) • Mr. Fredrik Erninge, <i>Nammo Vanäsverken AB</i>	

10:30 AM – 10:50 AM	Networking Break – Exhibit Hall
10:50 AM – 12:10 PM	Session X: Weapons Chair: Mr. David Long, <i>Technical Warrant Holder (acting) Small Arms and Weapons Small Arms Weapons Systems Division Chief Engineer, NSW Crane</i>
10:50 AM – 11:10 AM	Multiple Trajectory 40mm Grenade Launching System (19185) <ul style="list-style-type: none">• Mr. Howard Kent, <i>Armor Development Group, LLC</i>
11:10 AM – 11:30 AM	Phase Change Micro-Barrel Jacket Liquid Cooled Machine Gun Barrel For Continuous Fire (19187) <ul style="list-style-type: none">• Mr. Howard Kent, <i>Armor Development Group, LLC</i>
11:30 AM – 11:50 AM	KEYMOD™ VS. M-LOK™ TM Modular Rail System Comparison (19427) <ul style="list-style-type: none">• Mr. Caleb McGee, <i>NAVSEA</i>
11:50 AM – 12:10 PM	Evolving Legacy DON Stabilized Small Arms Weapon Systems by Enhancing At-Sea Live Fire Testing Without Using Water (19291) <ul style="list-style-type: none">• Dr. Mark Thoreson, <i>NSWC Crane</i>
12:10 PM – 12:15 PM	Closing Remarks <ul style="list-style-type: none">• Mr. Brian Berger, <i>Chairman, Small Arms Committee; Global Technologies for Defense and Security America</i>
12:15 PM	Load Buses and Depart for Technology Demonstration
2:00 PM – 5:00 PM	Live Fire Demonstrations Chair: Mr. Alan Matthews, <i>PM Weapons MCSC</i>
5:00 PM – 6:00 PM	Transport to Convention Center

WEDNESDAY, MAY 3, 2017

- 7:00 AM – 5:50 PM** **Registration Open**
- 7:00 AM – 8:00 AM** **Networking Breakfast**
- 8:00 AM – 8:05 AM** **Administrative Announcements**
- Mr. Matt Solverson, *Chair, GARM Committee; Director, Medium Caliber Ammunition Marketing and Business Development, General Dynamics Ordnance and Tactical Systems*
- 8:05 AM – 8:25 AM** **Technology Impacts Keynote Address**
- Mr. Joe Pelino, *Director of Technology, U.S. Army ARDEC*
- 8:25 AM – 9:50 AM** **MRAS Panel Discussion**
- Chair: Mr. Dave Broden, *NDIA Armament Division Chair; President, Broden Resource Solutions, LLC*
- Mr. John Hedderich, III, *U.S. Army, ARDEC*
 - COL William Nuckols, *USA, Mounted Requirements Division, U.S. Army*
 - COL Moises Gutierrez, *USA, Maneuver Ammunition Systems*
 - Mr. Jerome Dunn, *DARPA*
- 9:50 AM – 10:30 AM** **Armament Systems Session**
- Session Chairs: Mr. Steven Sohm, *BAE Systems* and Mr. Anthony Cannone, *U.S. Army ARDEC*
- 9:50 AM – 10:10 AM** **A New Concept in Mobile Weapon Systems (19375)**
- Mr. Jerome Nathan, *Senior Design Engineer, Mandus Group, Ltd.*
- 10:10 AM – 10:30 AM** **Abrams Lethality Enabler (ALE) (19476)**
- Mr. Anand Bahadur, *U.S. Army ARDEC*
- 10:30 AM – 11:00 AM** **Networking Break – Exhibit Hall**
- 11:00 AM – 11:40 AM** **Direct and Indirect Fire Guns Session**
- Session Chairs: Mr. Darrel Morris, *United Technologies Sensors and Intergrated Systems* and Ms. Robin Lacy, *NSWC-Dahlgren*
- 11:00 AM – 11:20 AM** **25mm MK38 MOD 3 Machine Gun System Qualification Status (19444)**
- Mr. Jim McConkie, *NSWC Dahlgren*
- 11:20 AM – 11:40 AM** **Design of a Muzzle Brake to Reduce Firing Impulse Noise During Training (19204)**
- Mr. Alex Davies, *QinetiQ*
- 11:40 AM – 2:35 PM** **Ammunition Session**
- Session Chairs: Mr. Mike Pattison, *Meggitt Defense Systems* and Mr. Ralph Tillinghast, *U.S. Army ARDEC*
- 11:40 AM – 12:00 PM** **Guided Projectiles for Enhanced Expeditionary Engagement Capability (19271)**
- Mr. Sanford Steelman, *NSWC Dahlgren*
- 12:00 PM – 1:30 PM** **Networking Luncheon – Exhibit Hall**
- 1:30 PM – 2:30 PM** **Ammunition Session Continued**
- 1:30 PM – 1:50 PM** **25mm APEX Ammunition**
- Ms. Eva Friis, *Nammo Raufoss AS*
- 1:50 PM – 2:10 PM** **40mm Net Munition for UAS Defeat**
- Mr. Tomasz Blyskal, *U.S. Army ARDEC*

WEDNESDAY, MAY 3, 2017 CONTINUED

- 2:10 PM – 2:30 PM** **Leveraging Next Generation Extended Range, Precision Mortars as Air Dropped Weapons (19401)**
• Mr. Alan Perkins, *UTC Aerospace Systems*
- 2:30 PM – 3:50 PM** **Fire Control Session**
Session Chairs: Mr. Mark Serben, *U.S. Army ARDEC* and Mr. Stephen Sohm, *BAE Systems*
- 2:30 PM – 2:50 PM** **Rethinking User Interface Design and Evaluation (19343)**
• Ms. Korinne Dobosh, *U.S. Army ARDEC*
- 2:50 PM – 3:10 PM** **Direct Lay Laser for Nighttime Mortar Engagements (19290)**
• Mr. Steven Sadowski, *U.S. Army ARDEC*
- 3:10 PM – 3:30 PM** **Third and Fourth Generation Air-Bust Programming Technology - Ballistic Kernels, Processors, Sensors and Methodologies (19419)**
• Mr. Kevin Sullivan, *NOSTROMO*
- 3:30 PM – 3:50 PM** **Automated Pointing of Indirect Weapon Systems - A Lesson in Kinematics (19256)**
• Mr. Joshua Stapp, *U.S. Army ARDEC*
- 3:50 PM – 4:10 PM** **Networking Break in Exhibit Hall**
- 4:10 PM – 5:30 PM** **Missiles and Rockets Session**
Session Chairs: Mr. Steve Piper, *Piper Pacific International* and Mr. Howie Wendt, *NSWC Dahlgren*
- 4:10 PM – 4:30 PM** **Composite Canister Profile Manufacturing by Pultrusion Process (19397)**
• Mr. Erdal Sapanci, *Roketsan*
- 4:30 PM – 4:50 PM** **APKWS Responds to Fixed Wing Need (19414)**
• Mr. Mark Falco, *BAE Systems*
- 4:50 PM – 5:10 PM** **Future Fires - Next Generation Expeditionary USMC Artillery Concepts (19208)**
• Mr. Kevin Lefeeve, *NSWC Dahlgren*
- 5:10 PM – 5:30 PM** **Advanced Shoulder-Launched Low-Cost Missiles**
• LTC Gideon Weiss, *USA (Ret), Rafael USA, Inc.*
- 5:30 PM – 5:50 PM** **Warheads and Energetics Session**
Session Chairs: Mr. Richard Cadille, *Kistler* and Mr. Jeff Siewert, *Arrow Tech Associates, Inc.*
- 5:30 PM – 5:50 PM** **MSIAC - Supporting the Munitions Safety Community (19250)**
• Dr. Ernest Baker, *NATO Munitions Safety Information Analysis Center*
- 5:50 PM** **Adjourn**

THURSDAY, MAY 4, 2017**7:00 AM – 12:00 PM** **Registration Open****7:00 AM – 8:00 AM** **Networking Breakfast****8:00 AM – 11:20 AM** **Concurrent Sessions**

	Continuation of Warheads and Energetics Session Session Chairs: Mr. Ralph Tillinghast, <i>U.S. Army ARDEC</i> and Mr. Jeff Siewert, <i>Arrow Tech Associates, Inc.</i>	U.S. Citizens Only* Session Chairs: Mr. Mark Serben, <i>ARDEC</i> and Mr. Anthony Cannone, <i>ARDEC</i>
8:00 AM	Sub-Miniature Laser Igniters (19472) Mr. John Hirlinger, <i>U.S. Army ARDEC</i>	U.S. Ammunition Industrial Base - Chemical Supply Vulnerabilities (19331) Mr. Douglas Marqueen, <i>Naval Surface Warfare Center Dahlgren Division</i>
8:20 AM	Accurate Determination of Weapon System Attitude in a Testing Environment (19426) Mr. Andrew Tse, <i>U.S. Army ARDEC</i>	Advanced High Thermal Conductivity High Erosion Resistant Light Weight Gun Barrels (19438) Mr. Brian Beckwith, <i>ATS-MER, LLC</i>
8:40 AM	Development of Accurate Finite Element Models and Testing Procedures for Bolted Joints in Large Caliber Gun Weapon Systems (19409) Mr. Michael Koehler, <i>U.S. Navy</i>	JSF Gun System Qualification Test Results (19410) Mr. Matthew Diehl, <i>General Dynamics –OTS</i>
9:00 AM	Adjourn	Networking Break - Exhibit Hall
9:20 AM		High Temperature Composite Mortar Tubes (19425)* Mr. Joshua Root, <i>U.S. Army ARDEC</i>
9:50 AM		Electrochemical Machining of Cannon Barrels (19417)* Mr. Anthony Cannone, <i>U.S. Army ARDEC</i>
10:10 AM		The Influence of Variable Winds on Direct Fire Engagements (19364)* Mr. Tomas Bober, <i>U.S. Army ARDEC</i>
10:30 AM		ARDEC Munition Technology Development for a Multi-Role Mission (19475)* Mr. Michael Donadio, <i>U.S. Army ARDEC</i>
10:50 AM		Counter Unmanned Aerial Systems (CUAS) (19440)* Mr. Bhavanjot Singh, <i>U.S. Army, ARDEC</i>
11:10 AM		Adjourn

11:10 AM – 11:20 AM **Concluding Remarks****12:15 PM** **Depart for Technology Demonstration**

*Government attendees with a CAC Card must show that credential to gain entrance.

WEDNESDAY, MAY 3, 2017

- 7:00 AM – 3:50 PM** **Registration Open**
- 7:00 AM – 8:00 AM** **Networking Breakfast**
- 8:00 AM – 9:20 AM** **Future Concepts for the Next Fight – Third Offset**
Session Chair: Dr. Bart Halpern, *Chief Technical Officer, U.S. Army ARDEC*
- 8:00 AM – 8:20 AM** **Do Small Arms Have a Role in the Tactics of Future Battlefield Confrontations? (19268)**
• Dr. Bart Halpern, *Chief Technical Officer, U.S. Army ARDEC*
- 8:20 AM – 8:40 AM** **When Will Weapon Systems Think for Themselves? How Artificial Intelligence and Machine Learning May Play a Role in Our Future (19289)**
• Mr. Ralph Tillinghast, *U.S. Army ARDEC*
- 8:40 AM – 9:00 AM** **Augmented Reality Fire Control Enhancements (19306)**
• Mr. David Musgrave, *U.S. Army ARDEC*
- 9:00 AM – 9:20 AM** **SPARCS: Soldier Parachute Aerial Reconnaissance Camera System (19442)**
• Mr. Cheng Hok Aw, *Pte, Ltd.*
- 9:20 AM – 9:50 AM** **Networking Break – Exhibit Hall**
- 9:50 AM – 11:50 AM** **Sensors and Enabling Technology Session**
Session Chair: Mr. Dan Hartman, *Spectra Technologies, LLC*
- 9:50 AM – 10:10 AM** **3D Intelligent Technical Data (19195)**
• Ms. Lynn E. Smith, *U.S. Army ARDEC*
- 10:10 AM – 10:30 AM** **Air Blast from a Structural Reactive Material Solid (19288)**
• Dr. Fan Zhang, *Defence Research and Development Canada*
- 10:30 AM – 10:50 AM** **Integrated Antenna and Package Technologies for Projectiles (19292)**
• Mr. Lawrence Rubin, *Systems Engineering Group, Inc.*
- 10:50 AM – 11:10 AM** **Weapon-Target Assignment Optimization that Minimizes the Cost of Engaging Weapons, Minimizes Overkill of Targets, and Keeps Collateral Damage in Check (19355)**
• Dr. Zbigniew Bogdanowicz, *U.S. Army ARDEC*
- 11:10 AM – 11:30 AM** **3D Printed Weapons: Challenges and Opportunities in Advanced Manufacturing (19403)**
• Dr. Sharon Flank, *InfraTrac*
- 11:30 AM – 11:50 AM** **Atmospheric Measurements in Propane and Liquid-Pool Fast Cook-off Fires (19464)**
• Dr. David Hubble, *U.S. Navy*
- 11:50 AM – 12:50 PM** **Luncheon – Exhibit Hall**
- 12:50 PM – 2:30 PM** **U.S. Only Session: Directed Energy, Rail Gun & Hypervelocity Projectile**
Session Chair: Dr. Jennifer Ciezak-Jenkins, *U.S. Army Research Laboratory*
- 12:50 PM – 1:10 PM** **Railgun Technology Development (19179)**
• Mr. Robert Taylor, *General Atomics*
- 1:10 PM – 1:30 PM** **Disruptive Energetics – Fundamental Science for 3rd Offset Needs (19181)**
• Dr. Jennifer Ciezak-Jenkins, *U.S. Army Research Laboratory*
- 1:30 PM – 1:50 PM** **Cyber Risk Management (19189)**
• Ms. Cecilia Anastos, *Meta Intelligence, LLC*

WEDNESDAY, MAY 3, 2017 CONTINUED

1:50 PM – 2:10 PM	Next Generation Fire Control System Training Simulation Capability (19411) <ul style="list-style-type: none">Mr. Matthew Diehl, <i>General Dynamics Ordnance and Tactical Systems</i>
2:10 PM – 2:30 PM	Next Generation Fire Control System with RF Airburst (19412) <ul style="list-style-type: none">Mr. Matthew Diehl, <i>General Dynamics Ordnance and Tactical Systems</i>
2:30 PM – 2:50 PM	Networking Break – Exhibit Hall
2:50 PM – 3:10 PM	Advanced Optical Communications Systems for Munitions (19439) <ul style="list-style-type: none">Dr. Stephen Guerrero, <i>Creative Microsystems</i>
3:10 PM – 3:30 PM	Abrams Lethality Enable (19476) <ul style="list-style-type: none">Mr. Anand Bahadur, <i>U.S. Army, ARDEC</i>
3:30 PM – 3:50 PM	Next-Generation Non-Lethal Weapons – Science & Technology (S&T) <ul style="list-style-type: none">Mr. David Law, <i>Joint Non-Lethal Weapons Directorate (JNLWD)</i>
3:50 PM	Adjourn

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

SMALL ARMS COMMITTEE CHAIR

Mr. Brian Berger
Global Technologies for Defense and Security America
brian.berger@gtds-america.com

NDIA STAFF

Mrs. Britt Sullivan, CMP
Associate Director, Meetings & Special Projects
bsullivan@ndia.org

Ms. Savanna Stephens
Meeting Planner
sstephens@ndia.org

Mrs. Allison H. Carpenter
Director of Exhibits & Sponsorships
ahcarpenter@ndia.org