Onsite 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

<table>
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<tr>
<th>Time</th>
<th>Tutorial A</th>
<th>Tutorial B</th>
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<tbody>
<tr>
<td>1:00 PM - 2:30 PM</td>
<td>In-sensitive Munitions Requirements, Technology, and Testing</td>
<td>ARDEC Tissue Damage Model – An Unclassified Damage Model for Use by Industry</td>
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<td>Dr. Ernie Baker, NATO MSIAC</td>
<td>Mr. Gavin McFarland, Mechanical Engineer, U.S. Army ARDEC</td>
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<td>2:30 PM - 4:00 PM</td>
<td>Kistler Transducer Calibration and Application</td>
<td>Lead Free Primer Formulation and Manufacturing Solutions for Small Caliber Ammunition – Board</td>
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<td>Mr. Richard Cadille, Kistler</td>
<td>• Mr. Dan Mansfield, Orbital ATK Lake City</td>
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<td>• Mr. Anthony Hawthorne, ARDEC Project Engineer, Project Manager Maneuver Ammunition Systems, U.S. Army</td>
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<td>• Mr. Jeremy Mills, Winchester</td>
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<td>• Mr. Jared Smith, Fiocchi</td>
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<td>• Mr. Peter Spatz, RUAG</td>
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<td>• Mr. Bruce Webb, NAMMO</td>
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<td>4:00 PM - 5:30 PM</td>
<td>Large Caliber Cannon Technology Shortfalls – Opportunities for Government &amp; Industry Collaboration</td>
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<td>Dr. Joseph Kapp, U.S. Army ARDEC</td>
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### 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
- Mr. Dave Broden, NDIA Armament Division Chair; President, Broden Resource Solutions, LLC

**8:10 AM - 8:15 AM** NDIA Welcome
- CAPT Bruce Roulstone, USN (Ret), Vice President, Program Development, NDIA

**8:15 AM - 8:45 AM** DoD Keynote Address
- Mr. Vincent Sabio, Program Manager, Strategic Capabilities Office, DoD

**8:45 AM - 9:15 AM** MRAS Keynote Address
- Mr. John Hedderich, III, Director, U.S. Army, ARDEC

**9:15 AM - 9:45 AM** U.S. Army Keynote Address
- COL William Nuckols, USA, Director, Mounted Requirements Division, U.S. Army

**9:45 AM - 10:15 AM** Networking Break – Exhibit Hall
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<tr>
<th>Time</th>
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| 10:15 AM - 10:45 AM | U.S. Army Special Operations Command Keynote Address  
  - COL Samuel Ashley, USA, G-8, U.S. Army Special Operations Command |
| 10:45 AM - 11:30 AM | Awards Presentation  
  **Small Arms Awards**  
  - Chinn Award: Mr. Dan Shea, Phoenix Defense  
  - Hathcock Award: Mr. Todd Hodnett, Accuracy 1st, Inc.  
  - Ambrose Award: Oehler Research, Inc.  
  **GARM Awards**  
  - Trifiletti Award: Mr. Mike Till, NSWCDD E Department |
| 11:30 AM - 1:00 PM | Luncheon - Exhibit Hall |
| 1:00 PM - 1:30 PM | U.S. Navy Keynote Address  
  - Dr. John Burrow, Navy Research, Development, Test and Evaluation |
| 1:30 PM - 2:00 PM | PEO - Ammunition Presentation  
  - Mr. Jim Shields, Program Executive Officer, PEO Ammunition |
| 2:00 PM - 2:30 PM | DARPA Presentation  
  - Mr. Jerome Dunn, Science & Technology Program Officer, Defense Advanced Research Projects Agency |
| 2:30 PM - 3:00 PM | Networking Break - Exhibit Hall |
| 3:00 PM - 3:30 PM | Views from Congress on Acquisition Reform Presentation  
  - Mr. Jeremy Hayes, Professional Staff, Section 809 Panel on Streamlining and Codifying Acquisition, Former Professional Staff Member, Senate Armed Services Committee |
| 3:30 PM - 4:00 PM | Guest Speaker  
  - Mr. Dan Shea, General Director, Phoenix Defense/Small Arms Defense Journal |
| 4:00 PM - 4:30 PM | Guest Speaker  
  - David Law, Technology Chief, Joint Non-Lethal Weapons Directorate (JNLWD) |
| 4:30 PM - 5:00 PM | DOTC  
  - Mr. Charles Zisette, NAC/DOTC |
| 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 Hohnecker, *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 Hohnecker, *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*

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<tr>
<th>Time</th>
<th>Topic</th>
<th>Presenter(s)</th>
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<tbody>
<tr>
<td>8:10 AM – 8:30 AM</td>
<td>.50 Caliber Baseline Study Overview, Results, and Emerging Requirements (19170)</td>
<td>Mr. Stephen McFarlane, <em>U.S. Army, PMMAS</em></td>
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<td>8:30 AM – 8:50 AM</td>
<td>The Effects of Propellant Position on Small Caliber Ballistic Performance (19293)</td>
<td>Ms. Connie Lusto, <em>U.S. Army, ARDEC</em></td>
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<td>8:50 AM – 9:10 AM</td>
<td>Factors Affecting Dispersion of M118LR Sniper Ammunition (19393)</td>
<td>Mr. Zachary Krogstad, <em>U.S. Army, ARDEC</em></td>
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<td>9:10 AM – 9:30 AM</td>
<td>Maintaining Overmatch and Standardization for Future NATO Small Arms (19394)</td>
<td>Mr. David Zhou, <em>Independent</em></td>
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<tr>
<td>9:30 AM – 9:50 AM</td>
<td>Advances in 6.5mm and 7.62mm Cased Telescoped Small Arms Systems (19423)</td>
<td>Mr. Paul Shipley, <em>Textron Systems/AAI Corporation</em></td>
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<tr>
<td>9:50 AM – 10:10 AM</td>
<td>Design and Implementation of Reduced Range Training Ammunition (19429)</td>
<td>Mr. Raymond Chaplin, <em>U.S. Army ARDEC</em></td>
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<tr>
<td>10:10 AM – 10:30 AM</td>
<td>Enhanced Training with Small Caliber Plastic Short Range Training Ammunition (19468)</td>
<td>Mr. Fredrik Erninge, <em>Nammo Vanäsverken AB</em></td>
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### Session IX: Related Enabling Technology and Modeling and Simulation (RETMS)  
Session Chair: Mr. Raymond Chaplin, ME, *ARDEC*

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<tr>
<td>8:10 AM – 8:30 AM</td>
<td>Test Methods for Quantitative Small Arms Flash Measurements (19406)</td>
<td>Dr. David Dye, <em>NSWC Crane</em></td>
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<td>8:30 AM – 8:50 AM</td>
<td>Development of Standardized Test Methods for Quantitative Small Arms Thermal Signature Measurements (19407)</td>
<td>Dr. David Dye, <em>NSWC Crane</em></td>
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<tr>
<td>8:50 AM – 9:10 AM</td>
<td>Studies on Composition and Manufacturing Process for 5.56mm Tracer Ammunition (19420 and 19433)</td>
<td>Mr. Daniel Mansfield, <em>Orbital ATK</em></td>
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<td>9:10 AM – 9:30 AM</td>
<td>Suppressed Upper Receiver (SURG) Testing Methods (19422)</td>
<td>Mr. Caleb McGee, <em>NSWC Crane</em></td>
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<tr>
<td>9:30 AM – 9:50 AM</td>
<td>Improving 5.56 Tracer Ammunition Dispersion (19435)</td>
<td>Mr. Andy Boman, <em>Orbital ATK</em></td>
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<td>Mr. Fredrik Erninge, <em>Nammo Vanäsverken AB</em></td>
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10:30 AM - 10:50 AM Networking Break - Exhibit Hall

10:50 AM - 12:10 PM Session X: Weapons
Chair: Mr. David Long, Technical Warrant Holder (acting) Small Arms and Weapons Small Arms Weapons Systems Division Chief Engineer, NSWC Crane

10:50 AM - 11:10 AM Multiple Trajectory 40mm Grenade Launching System (19185)
• Mr. Howard Kent, Armor Development Group, LLC

11:10 AM - 11:30 AM Phase Change Micro-Barrier Jacket Liquid Cooled Machine Gun Barrel For Continuous Fire (19187)
• Mr. Howard Kent, Armor Development Group, LLC

11:30 AM - 11:50 AM KEYMOD™ VS. M-LOK™ TM Modular Rail System Comparison (19427)
• Mr. Caleb McGee, NAVSEA

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)
• Dr. Mark Thoreson, NSWC Crane

12:10 PM - 12:15 PM Closing Remarks
• Mr. Brian Berger, Chairman, Small Arms Committee; Global Technologies for Defense and Security America

12:15 PM Load Buses and Depart for Technology Demonstration

2:00 PM - 5:00 PM Live Fire Demonstrations
Chair: Mr. Alan Matthews, PM Weapons MCSC

5:00 PM - 6:00 PM Transport to Convention Center
## WEDNESDAY, MAY 3, 2017

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

4:30 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 Lefeave, 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

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<tr>
<th>Time</th>
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<tr>
<td>8:00 AM</td>
<td><strong>Continuation of Warheads and Energetics Session</strong></td>
<td>Mr. Ralph Tillinghast, <em>U.S. Army ARDEC</em> and Mr. Jeff Siewert, <em>Arrow Tech Associates, Inc.</em></td>
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<td><strong>U.S. Citizens Only</strong></td>
<td>Mr. Mark Serben, <em>ARDEC</em> and Mr. Anthony Cannone, <em>ARDEC</em></td>
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<td>8:00 AM</td>
<td><strong>Sub-Miniature Laser Igniters (19472)</strong></td>
<td>Mr. John Hirlinger, <em>U.S. Army ARDEC</em></td>
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<td>8:20 AM</td>
<td><strong>Accurate Determination of Weapon System Attitude in a Testing Environment (19426)</strong></td>
<td>Mr. Andrew Tse, <em>U.S. Army ARDEC</em></td>
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<td>9:00 AM</td>
<td><strong>Adjourn</strong></td>
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<tr>
<td>9:20 AM</td>
<td><strong>Networking Break – Exhibit Hall</strong></td>
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<td><strong>High Temperature Composite Mortar Tubes (19425)</strong></td>
<td>Mr. Joshua Root, <em>U.S. Army ARDEC</em></td>
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<tr>
<td>9:50 AM</td>
<td><strong>Electrochemical Machining of Cannon Barrels (19417)</strong></td>
<td>Mr. Anthony Cannone, <em>U.S. Army ARDEC</em></td>
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<td>10:10 AM</td>
<td><strong>The Influence of Variable Winds on Direct Fire Engagements (19364)</strong></td>
<td>Mr. Tomas Bober, <em>U.S. Army ARDEC</em></td>
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<td>10:30 AM</td>
<td><strong>ARDEC Munition Technology Development for a Multi-Role Mission (19475)</strong></td>
<td>Mr. Michael Donadio, <em>U.S. Army ARDEC</em></td>
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<td>10:50 AM</td>
<td><strong>Counter Unmanned Aerial Systems (CUAS) (19440)</strong></td>
<td>Mr. Bhavanjot Singh, <em>U.S. Army, ARDEC</em></td>
</tr>
<tr>
<td>11:10 AM</td>
<td><strong>Adjourn</strong></td>
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</tbody>
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**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)
   • Mr. Jeff Windham, 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
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<th>Time</th>
<th>Session</th>
<th>Presenter(s)</th>
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<tr>
<td>1:50 PM - 2:10 PM</td>
<td>Next Generation Fire Control System Training Simulation Capability (19411)</td>
<td>Mr. Matthew Diehl, General Dynamics Ordnance and Tactical Systems</td>
</tr>
<tr>
<td>2:10 PM - 2:30 PM</td>
<td>Next Generation Fire Control System with RF Airburst (19412)</td>
<td>Mr. Matthew Diehl, General Dynamics Ordnance and Tactical Systems</td>
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<tr>
<td>2:30 PM - 2:50 PM</td>
<td>Networking Break - Exhibit Hall</td>
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<td>2:50 PM - 3:10 PM</td>
<td>Advanced Optical Communications Systems for Munitions (19439)</td>
<td>Dr. Stephen Guerrera, Creative Microsystems</td>
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<td>Abrams Lethality Enable (19476)</td>
<td>Mr. Anand Bahadur, U.S. Army, ARDEC</td>
</tr>
<tr>
<td>3:30 PM - 3:50 PM</td>
<td>Next-Generation Non-Lethal Weapons – Science &amp; Technology (S&amp;T)</td>
<td>Mr. David Law, Joint Non-Lethal Weapons Directorate (JNLWD)</td>
</tr>
<tr>
<td>3:50 PM</td>
<td>Adjourn</td>
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</tbody>
</table>

**Armament Division Chair**  
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dbroden@brsbis.com

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19187  Mr. George Kontis & Mr. Robert Landies
19195  Mr. John Kreider
19204  Dr. Ketchong Phan & Mr. Jamie Tolhurst
19250  Dr. Michael Sharp
19271  Mr. Benjamin Topper
19272  Mr. Frank Dindl
19289  Mr. Michael Wright & Dr. Stuart Vanweele
19291  Dr. Mark Thoreson
19292  Dr. William McKinzie, III & Mr. Anthony Nelson
19306  Ms. Korinne Dobosh
19343  Mr. David Musgrave
19355  Ms. Ketula Patel & Mr. John Price
19393  Mr. Daniel Meierhofer, Mr. Christopher Drake, Mr. Jeff Siewert & Mr. Dustin Triebel
19397  Mr. Erdal Sapanci, Ms. Gunes Gunay & Mr. Ayhan Aydogmus
19401  Mr. Spencer Rouen, Mr. Dwight Warner & Mr. Chris Church
19402  Mr. Jason Paugh, Dr. James Reuther & Dr. Kang-Bin Chua
19403  Mr. Jon Schupp
19406  Dr. Mark Thoreson
19407  Dr. Mark Thoreson
19409  Mr. Gregory Fish
19417  Mr. Chris Humiston & Mr. Curtis Bradley
19419  Dr. Roy Kelly & Mr. Nicolas Bruno
19420  Mr. Christopher Csernica
19423  Ms. Korene Phillips & Mr. Benjamin Cole
19425  Dr. Andrew Littlefield
19426  Mr. Ralph Tillinghast & Mr. Michael Wright
19429  Sabbian Registre
19436  Mr. Todd Skowron

TECHNOLOGY DEMONSTRATORS

AT FORT A.P. HILL

Barrett
Century Arms
DSG Industries
FN America
Glock
H&K
PEO Soldier
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**Aimpoint, Inc.** 410
For over 40 years, Aimpoint has been the world leader in design and manufacture of electronic red-dot sighting systems. Soldier tested and combat proven – don’t settle for anything less.

**American Rheinmetall Systems** 310
American Rheinmetall Systems, located in Biddeford, Maine and is a mechanical and electro-optical engineering company specializing in sophisticated system integration, assembling and R&D, working in close cooperation with customers worldwide. The company is a key sub-supplier to Kongsberg for the US Army’s CROWS remote weapon station program, producing mounts, firing mechanisms and cameras, and is currently under contract for multiple fire control programs supporting the US military.

**Arrow Tech** 205
Since 1987, Arrow Tech Associates, Inc. has been providing world class support in structural analysis, dynamic analysis, weapons system simulation and all aspects of ammunition design and analysis. Our PRODAS software provides customers with, Aerodynamics, Aero Stability, Trajectory, Interior Ballistics, Controlled Trajectory, Rocket Motor Design, Firing Tables, Dispersion, In Bore Balloting, Sabot Design, Cartridge Case Design, and Guidance and Control Prototyping simulations.

**BakerHostetler** 307
BakerHostetler, LLP is one of the nation’s largest law firms, representing clients around the globe and representing clients in the federal government contracting sector. BakerHostetler’s Government Contracts team represents clients in all areas of public contract law, providing experience in the areas of bid protests, contract performance disputes, false claims and procurement fraud, ethics advice, compliance audits, mergers and acquisitions, and small business matters.

**Barrett** 210
Headquartered in Tennessee, Barrett is the world leader in large-caliber rifle design and manufacturing. Our products are used by law enforcement agencies, the United States military and more than 73 State Department approved countries in the world. It’s one thing to manufacture guns, and another to live and breathe them. Whether we’re carefully assembling our latest rifle or increasing the velocity and precision of the ammunition itself – we’re always working for absolute perfection.

**Bull Dog Equipment/Red Sled, Inc.** 402
Bulldog Tactical Equipment designs and manufactures custom gear for the US military. Our solutions are based upon the needs of the soldier. Our goals are to offer products that are mission critical and assure the customer that we will provide the finest equipment. All of our products are made in the USA and constructed with all American components.

**Century Arms** 211
Born over 50 years ago, Century Arms has an extensive history of providing unique and affordable products to American citizens, law enforcement and military partners. That is carried on today with a state of the art manufacturing facility located in the USA as they continue to offer innovative products.

**Chemring Ordnance, Inc.** 207
Chemring Ordnance (COR), an operating company within Chemring Group, Inc. COR is a center of excellence for the design, development and production of ordnance, pyrotechnic products and other munition components for military, homeland security and first responders. COR manufactures all types of 40mm low and high velocity ammunition; pyrotechnic signaling, tactical illumination devices, battlefield effects simulators, hand grenade fuzes and other ammunition components.

**FN America, LLC** 201
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EXHIBITING COMPANIES

**General Dynamics – OTS**

General Dynamics Ordnance and Tactical Systems manufactures large-, medium- and small-caliber direct and indirect-fire munitions; and is a leader in the development and production of lightweight tactical vehicles, weapons and armament systems. The company also produces propellants and non-lethal and force-protection products. More information about General Dynamics Ordnance and Tactical Systems is available online at www.gd-ots.com.

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**Small Arms Defense Journal**

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