

JOINT ARMAMENTS CONFERENCE, EXHIBITION & FIRING DEMONSTRATION

“21st Century Weapon Systems - Providing the Right Response”

COMBINED PROGRAM ANNOUNCEMENT

GUN & MISSILE SYSTEMS

Precision and Lethality in Medium
and Large Caliber

& SMALL ARMS SYSTEMS

Technology and Systems Sustaining
and Evolving Small Arms
Capability



HYATT REGENCY DALLAS ▶ DALLAS, TX

MAY 17-20, 2010

EVENT #0610

WWW.NDIA.ORG/MEETINGS/0610

MONDAY, MAY 17, 2010

8:00 am - 3:00 pm Exhibitor Move-in - Marsalis Hall

8:00 am - 6:30 pm Registration Open - Landmark Circle

1:00 pm - 2:45 pm TUTORIALS

▶ *Session Chair: Bob Glantz, ATK*

Cumberland A	Cumberland B
DOD Instruction 5000.2 <i>Ms. Karen Byrd, LCSC Learning Assistant Program Manager, DAU</i>	WSESRB Overview <i>Mr. Jim Gerber & Mr. Gary Vargo, NOSSA</i>

3:00 pm - 4:45 pm TUTORIALS

Cumberland A	Cumberland B
International Traffic in Arms Regulations, Government and Corporate Perspectives <i>Mr. Larry Christensen, Member Miller & Chevalier Chartered Mr. Moses E. Lewis, Executive Consultant to EME</i>	De Mystifying Intellectual Property and Data Rights: Government & Industry Perspectives <i>Mr. Tim Ryan, Technology Transfer Program Manager ARDEC, Mr. Carlton Chen, VP Compliance & Regulatory Affairs, Colt</i>

5:00 pm - 6:30 pm RECEPTION IN MARSALIS HALL

TUESDAY, MAY 18, 2010

7:00 am - 5:30 pm Registration Open - Landmark Circle

7:00 am - 8:00 am Continental Breakfast - Landmark Ballroom Foyer

8:00 am - 8:30 am WELCOME & ADMINISTRATIVE ANNOUNCEMENTS - Landmark AB

- ▶ MG Barry Bates, USA (Ret), *Vice President, Operations, NDIA*
- ▶ Mr. David Broden, *Broden Resource Solutions; NDIA Armaments Division Chairman*
- ▶ Mr. Brian Tasson, *Director of Mechanical Design, ATK; Gun & Missile Committee Chairman*
- ▶ Mr. Brian Berger, *Vice President and General Manager, General Dynamics-OTS Canada; Small Arms Committee Chairman*

8:30 am - 9:00 am KEYNOTE ADDRESS

- ▶ MG Michael S. Repass, USA, *Commanding General, USASFC (Airborne) - Cancelled*

9:00 am - 9:45 am KEYNOTE ADDRESS

- ▶ BrigGen Michael M. Brogan, USMC, *Commander, Marine Corps Systems Command*
- ▶ BG Peter N. Fuller, USA, *Program Executive Officer (PEO) Soldier*

9:45 am - 10:15 am Morning Break in Marsalis Hall

10:15 am - 10:45 am DISTINGUISHED SPEAKER

- ▶ Mr. George Solhan, SES, *Deputy Chief of Naval Research (ONR 30)*

10:45 am - 11:15 am DISTINGUISHED SPEAKER

- ▶ Mr. Michael Mulligan, *President, General Dynamics Armament & Technical Products (ATP)*

11:15 am - 11:45 am DISTINGUISHED SPEAKER

- ▶ Mr. Jay Tibbets, *Senior Vice President, Business Development, ATK*

11:45 am - 12:15 pm DISTINGUISHED SPEAKER

- ▶ Mr. Hans Hoeneveld, *Senior Program Manager Ammunition, Netherlands Defense Materiel Organization*

12:15 pm - 1:30 pm AWARDS LUNCHEON - Landmark CD

- ▶ CHINN AWARD presented to Mr. Frank Puzycki, U.S. Army ARDEC
Presented by Mr. Joel Goldman, U.S. Army ARDEC
- ▶ HATHCOCK AWARD presented to Mr. Jeff Hoffman
Presented by Mr. Brian K. Sain on behalf of American Snipers
- ▶ NDIA PROFESSIONAL SERVICE AWARD presented to Mr. Hays Parks
Presented by Mr. Brian Berger, General Dynamics
- ▶ TRIFILETTI AWARD presented to Mr. Frank Bone
Presented by Mr. Brian Tasson, ATK

1:30 pm - 2:50 pm BREAKOUT SESSIONS

- ▶ Joint Service Small Arms Synchronization Team (JSSAST)
Session Chair: COL Karl Scott Flynn, USA, Chairman, JSSAST
- ▶ Precision Weapons
Session Chairs: Rob Brewer, NAVAIR & Jeff Siewert, Arrow Tech Associates, Inc.
- ▶ Platforms
Session Chairs: Anthony Gabriele, U.S. Army, RDECOM-ARDEC & Matt Diehl, General Dynamics
- ▶ Requirements & Program Trends
Session Chairs: Mark Serben, U.S. Army RDECOM - ARDEC & Steve Kelly, BAE Systems

	Small Arms Systems	Gun & Missile Systems		
Time	Landmark B	Cumberland A-C	Landmark A	Reunion GH
	JSSAST			
1:30	9880 - JSSAST Panel		Keynote: F-35 Weapon System Overview <i>Mr. Doug Hayward, Deputy Director F-35 Vehicle Systems, Lockheed Martin</i>	
	<ul style="list-style-type: none"> • COL Scott Flynn, USA, Chairman • LTC Tom Henthorn, USA • CDR Thomas Gajewski, U.S. Navy • Mr. Randy Roth, USAF • LtCol Mark Brinkman, USMC 			
	<ul style="list-style-type: none"> • COL James Smith, USSOCOM • CAPT Michael Price, USCG • Mr. Kevin Swenson, Joint Non-Lethal 	Precision Weapons	Platforms	Requirements & Program Trends
2:10		9886 - Characterizing Performance of Precision Projectiles <i>Mr. Jon Peoble, Raytheon Missile Systems</i>	9899 - MK 51 Modular Advanced Weapon System (MAWS) <i>Mr. Steven Cannon, NSWC PHD Det Louisville</i>	
2:30		9896 - NavFire Guidance System – Integrated GPS and Mission Computer for Future Navigation Solutions <i>Mr. Walter Trach Jr., Rockwell Collins</i>	10595 - Gun Tube Wear Reduction for 105mm Artillery <i>Mr. Thomas Boncompain, General Dynamics, Ordnance and Tactical Systems Canada</i>	10171 - Making Affordability Work <i>Mr. David Panhorst, U.S. Army ARDEC</i>

2:50 pm - 3:30 pm Afternoon Break in Marsalis Hall

3:30 pm - 5:30 pm BREAKOUT SESSIONS

- ▶ PM Soldier Weapons
Session Chair: COL Douglas Tamilio, USA, PM Soldier Weapons
- ▶ PM Legal Issues
Session Chairs: Charles Buxton, Small Arms Ammunition and Testing (JXNN)
- ▶ Precision Weapons
Session Chairs: Rob Brewer & Jeff Siewert, Arrow Tech Associates, Inc.

JOINT ARMAMENTS CONFERENCE
TUESDAY, MAY 18, 2010

- ▶ Platforms
Session Chairs: Anthony Gabriele, U.S. Army, RDECOM-ARDEC & Matt Diehl, General Dynamics
- ▶ Requirements & Program Trends
Session Chairs: Mark Serben, U.S. Army RDECOM - ARDEC & Steve Kelly, BAE Systems

	Small Arms Systems	Gun & Missile Systems		
Time	Landmark B	Cumberland A-C	Landmark A	Reunion GH
	PM Soldier Weapons	Precision Weapons	Platforms	Requirements & Program Trends
3:30	Panel Discussion <i>COL Tamilio, PM Soldier Weapons</i> <i>LTC Chris Lehner, Individual Weapons Update</i>	10034 - Mortar Guidance Kit (MGK) <i>Ms. Kelly Hanink, ATK</i>	10021 - Remote Guardian System(TM) Defensive Weapon System <i>Mr. Adrian Gorsline, BAE Systems</i>	10219 - Propulsion System Design in a Low Pressure Gun System <i>Mr. Carlton Adam, U.S. Army ARDEC</i>
3:50	<i>LTC Michael Ascura, Crew Served Weapons Update</i>	10049 - 5-Inch Long Range Land Attack Projectile (LR-LAP) <i>Mr. Brandon Engle, BAE Systems</i>	10153 - Indirect Fires Precision and Lethality Enhancements through Digitization of Artillery and Mortar Weapon Systems <i>Mr. Victor Galgano, U.S. Army ARDEC</i>	
4:10		10146 - Precision Guidance Kit (PGK) <i>Mr. Tom Bybee, ATK</i>	10190 - JSF Missionized Gun System <i>Mr. Douglas Parker, General Dynamics ATP</i>	
	PM Legal Issues			
4:30	10194 - ITAR: The International Trade in Arms Regulation: Changes and Updates Relevant to the Small Arms Community <i>Mr. Jason Wong, Firearms Law Group</i>	10174 - Improving the Accuracy of Precision Guided Munitions with a GPS Ephemeris & Ionospheric Correction Sharing Service (GEISS) <i>Mr. Charles Johnson, NAVSYS Corporation</i>	10235 - EFV 30mm Ammunition Feed System <i>Ms. Kim Perkins, General Dynamics ATP</i>	
4:50	10199 - International Efforts to Regulate or Prohibit Military Small Arms Ammunition <i>Mr. Hays Parks, DoD OGC (1A)</i>		10640 - Gun / Ammunition Acquisition Strategy for the EFV Program <i>Major Ian McDuffie, USMC, Head of Guns and Ammo APM-Mechanical Systems, PM AAA</i>	

5:30 pm - 7:00 pm

RECEPTION IN MARSALIS HALL

Promotional Partner:



WEDNESDAY, MAY 19, 2010

7:00 am - 5:10 pm Registration Open - Landmark Circle

7:00 am - 8:00 am Continental Breakfast - Landmark Ballroom Foyer

8:00 am - 9:20 am BREAKOUT SESSIONS

- ▶ Weapons
Session Chair: Rick Adams, FNH USA LLC
- ▶ Ammunition
Session Chair: Bruce Webb, Nammo Talley, Inc.
- ▶ Emerging Technologies
Session Chairs: Jay Brannam, ATK & Michael Thornton, NSWC
- ▶ Direct & Indirect Fires
Session Chairs: Dave Wallestad, Wallestad & Associates, LLC & Joe McPherson, USMC

	Small Arms Systems		Gun & Missile Systems	
Time	Landmark B	Cumberland A-C	Landmark A	Reunion GH
	Weapons	Ammunition	Emerging Technologies	Direct & Indirect Fires
8:00	10137 - Small Arms Weapon Integration on the Ramp of the V-22 Osprey <i>Mr. James Buechler, NSWC Crane</i>	9684 - Lethal Limited Range Round <i>Mr. Stephen McFarlane, U.S. Army</i>		9848 - 25mm Non-Energetic Fragmenting Cartridge <i>Mr. Rick Wright, General Dynamics</i>
8:20	10144 - The 0.50 Caliber Multi-Mode Machine Gun and Family of Enhanced Ammunition: A Complete Weapon System for Remote Mounts, Fighting Vehicles and Aircraft <i>Mr. Brian Sullivan, PMB, American Rheinmetall Munitions, Inc.</i>	10004 - Small Caliber Propellant Solutions for the U.S. Military <i>Mr. Steve Faintich, St. Marks Powder, A General Dynamics Company</i>	9894 - Design of an Intelligent Round Counter for Monitoring Ballistic Events Experienced by a Gun Barrel <i>Mr. Cory Mettler, American Science and Technology</i>	9857 - 120 MM XM360 Gun Program – Test & Evolution <i>Mr. David Smith P.E., U.S. Army Benet Laboratories</i>
8:40	10084 - GAU-21 CDWS Platform Integration <i>Mr. Bruce Richards, NSWC Crane</i>	10149 - DARPA SCORPION Program Transition to Army Advanced Technology Objective Program: A Success Story <i>Mr. Andre Lovas, Georgia Tech Research Institute</i>	10231 - The Rarefaction Wave Gun (RAVEN) Program <i>Mr. Mike Bixler, ARES, Inc.</i>	9862 - Howitzer Digitization Engineering Issues <i>Mr. William Key, IXSEA, Inc.</i>
9:00	The Kongsberg Common Remotely Operated Weapons Station: An Evolution in Capability for the Small Arms of Today to the Medium Cannon of Tomorrow <i>Mr. Westley "Bo" Barbour, Kongsberg Defence Systems</i>	10213 - Lightweight Small Caliber Ammunition (LSCA) Lessons Learned From Prototype Fabrication to Full Production Rates <i>Mr. George Feghali, General Dynamics OTS-Canada, Inc. Mr. Bill Dittrich, Fleximation, Inc.</i>	9936 - "Lightening Strike" – An Indirect Fire Concept Utilizing Combustion Light Gas Gun (CLGG) Technology to Achieve Extreme Ranges <i>Mr. David Kruczynski, UTRON Inc. Mr. Stephen Floroff, U.S. Army ARDEC</i>	9869/10148 - Modeling of Composite Wrapped Cannon Barrel/Non-Destructive Inspection & Design <i>Dr. Zhong Hu, South Dakota State University Dr. Jikai Du, South Dakota State University</i>

9:20 am - 10:00 am Morning Break in Marsalis Hall

10:00 am - 12:00 pm **BREAKOUT SESSIONS**

**Ammunition Breakout
Session Promotional
Partner**

10:00 AM - 11:00 AM



- ▶ Weapons
Session Chair: Rick Adams, FNH USA LLC
- ▶ Ammunition
Session Chair: Bruce Webb, Nammo Talley, Inc.
- ▶ Emerging Technologies
Session Chairs: Jay Brannam, ATK & Michael Thornton, NSWC
- ▶ Direct & Indirect Fires
Session Chairs: Dave Wallestad, Wallestad & Associates, LLC & Joe McPherson, USMC
- ▶ International
Session Chair: John Edwards, U.S. Army ARDEC

Time	Small Arms Systems		Gun & Missile Systems	
	Landmark B	Cumberland A-C	Landmark A	Reunion GH
	Weapons	Ammunition	Emerging Technologies	Direct & Indirect Fires
10:00	9915 - Advanced Remote/Robotic Armament System (ARAS) <i>Mr. Robert Testa, U.S. Army ARDEC</i>	10172 - Aluminum 5.56 Case Development: Continued Success with an Advanced Lightweight Material <i>Mr. Christopher Still, ATK</i>	10135 - Hypersonic Plasma Particle Deposition Coating... Making 21st Century Weaponry Last into the 22nd <i>Mr. Daniel Fox, Rushford Hypersonic, LLC</i>	10140 - 30mm x 113mm Traced Target Practice (TP-T) Munition <i>Mr. Kyle Nerison, ATK Integrated Weapon Systems</i>
10:20	9861 - Strategic Tripartite. Historic Opportunities for US and NATO Ground Combatants <i>Mr. Jim Schatz, Consultant</i>	10170 - Case Weight Variation Reduction and Subsequent Ballistic Dispersion Improvements in M118LR <i>Ms. Dionne Dillon, ATK Small Caliber Systems</i>	10150 - Exo-atmosphere Propulsion for Hypersonic Projectiles <i>Dr. Wayne Sawka, Digital Solid State Propulsion, LLC</i>	9945 - Super 40mm to 30mm Ammunition Comparison – Performance/Lethality <i>Mr. Rick Wright, General Dynamics</i>
10:40	9863 - The Next Generation: The Case for a New NATO Rifle and Machine Gun Cartridge <i>Mr. Anthony Williams, Consultant</i>	10183 - .50 Caliber Steel Case Development: Design and Development of a Lightweight Case Compatible with Modernized Production Processes at the Lake City Army Ammunition Plant <i>Mr. Christian Miller, ATK Small Caliber Systems</i>	10160 - Use of Non-metallic Materials in Gun-Launched Artillery Projectiles <i>Mr. John Tilling, QinetiQ</i>	9946 - The 30mm x 173 PELE: The Single Shot Solution for Combat Vehicles and Surface Combatants <i>Mr. Stephan Kerk, American Rheinmetall Munitions, Inc.</i>
	International			
11:00	10690 - Is There a Problem With the Lethality of the 5.56 NATO Caliber <i>Mr. Per Arvidsson, NATO Weapons & Sensors Working Group</i>	10195 - Effects of Barrel Length on Sound Measurement, Bore Pressure, and Bullet Velocity <i>Dr. Philip Dater, Gemtech</i>	10220 - Extended Area Protection and Survivability (EAPS) 50mm Cannon <i>Mr. Arthur Aeberli, U.S. Army ARDEC</i>	10032 - The Advance Case System (ACS) program for 120mm Tank Training Ammo <i>Mr. Jeff Berg, ATK</i>
11:20	10000 - Grenade Launchers in China <i>Ms. Juanjuan Yang, China R&D Academy of Machinery</i>	10186 - MEMS S&A for Munitions <i>Mr. Dale Spencer, Kaman Precision Products</i>	10222 - Advanced Gun Barrel Technology Program, Background and Results <i>Mr. Bill Vezina, BAE Systems</i>	

	Small Arms Systems		Gun & Missile Systems	
11:40	10055 - K11, Dual-Barrel Air-Burst Weapon <i>Dr. In Woo Kim, Agency for Defense Development, Korea</i>	10650 - Developments in Short Range Training Ammunition <i>Mr. Luis de Sousa, General Dynamics OTS, Simunition Operations</i>	10141 - LW25 High Explosive Dual Purpose (HEDP) Munition <i>Mr. Kyle Nerison, ATK Integrated Weapon Systems</i>	9905 - 25mm x 137 APEX Aircraft Ammunition <i>Ms. Eva Friis, Nammo Raufoss AS, Norway</i>

12:00 pm - 1:30 pm LUNCHEON WITH SPEAKER - Landmark CD
BRIGADIER GENERAL STEPHEN VINCENT BENET (1827-1895) - HIS LIFE AND TIMES

- ▶ Dr. Stephen Small, *JSSAP RDAR-EIJ, Picatinny Arsenal, NJ*

1:30 pm - 2:50 pm BREAKOUT SESSIONS

- ▶ International
Session Chair: John Edwards, U.S. Army ARDEC
- ▶ Energetics
Session Chair: Enrico Mutascio, Esterline Defense Technologies & Matt Solverson, General Dynamics
- ▶ Emerging Technologies
Session Chairs: Jay Brannam, ATK & Michael Thornton, NSWC
- ▶ Direct & Indirect Fires
Session Chairs: Dave Wallestad, Wallestad & Associates, LLC & Joe McPherson, USMC
- ▶ Modeling & Simulation
Session Chairs: Mike Stankus, EG&G Technical Services, Inc. & Steve Piper, Piper Pacific International

	Small Arms Systems		Gun & Missile Systems	
Time	Landmark B	Cumberland A-C	Landmark A	Reunion GH
	International	Energetics	Emerging Technologies	Direct & Indirect Fires
1:30	10136 - R&D Activities in Support of the Canadian Small Arms Replacement Project <i>Mr. Paul Harris, Defence Research and Development, Canada</i>	9878 - Unique Partnership to Provide Precision and Lethality to Tomorrow's Warfighter <i>Ms. Kelly Moran, ATK</i>	10033 - Selectable Effects Warhead Technology Demonstration <i>Mr. Eric Volkmann, ATK</i>	10225 - Warfare Has Changed: Investigation of the Performance of Ammunition in Maritime & Urban Environments <i>Mr. Martin van de Voorde, TNO Defence, Security and Safety</i>
1:50	10202 - Enhanced Warfighter Capability with Direct and Indirect Small Arms Ammunition <i>Mr. Jarl Eirik Straume, Nammo Raufoss AS, Norway</i>	9990 - High Performance BKNO ₃ Igniter Formulations <i>Dr. Eugene Rozumov, U.S. Army ARDEC</i>	10151 - Ultrasonic Characterization of Explosively-Bonded Concentric Tubes <i>Mr. Chris Jerred, South Dakota State University</i>	10157 - Modular Design of Direct Fire Medium Caliber Gun Systems for Joint Operations <i>Mr. Andrew Bradick, Consultant</i>
				Modeling & Simulation
2:10	10201 - Developing IfraRed (IR) (Dim) Tracer Compositions for Reduced Signature <i>Mr. Peter Hedsand, Nammo Small Arms Division, Sweden</i>	10006 - Medium and Large Caliber Propellant Solutions <i>Mr. Robert Pulver, St. Marks Powder, A General Dynamics Company</i>	9910 - Magne lok™ Technology – Achieving High Torque-densities with a Novel Electromagnetically Actuated Band-brake <i>Mr. Scott Miller, LORD Corporation</i>	9708 - Simulation of Cellulose Nitration Reaction <i>Mr. Mohamed (Mo) Elalem, U.S. Army ARDEC</i>

	Small Arms Systems	Gun & Missile Systems		
2:30	10200 - Developing Reduced Range Ammunition for Training and Urban Combat <i>Mr. Fredrik Erninge, Nammo Vanäsverken AB, Sweden</i>		9720 - Miniaturized ESAD Development <i>Mr. Ed Cooper, L-3 Fuzing and Ordnance Systems</i>	10179 - Automated Projectile Design Software <i>Mr. Mark Steinhoff, Arrow Tech Associates, Inc.</i>

2:50 pm - 3:30 pm Afternoon Break in Marsalis Hall

3:30 pm - 5:10 pm BREAKOUT SESSIONS

- ▶ Small Arms Modeling & Simulation
Session Chair: Mr. Matthew Cilli, U.S. Army ARDEC
- ▶ Non-Lethal
Session Chair: Mr. Kevin Swenson, NLWS Directorate, MCSC, Quantico
- ▶ Energetics
Session Chairs: Enrico Mutascio, Esterline Defense Technologies & Matt Solverson, General Dynamics
- ▶ Emerging Technologies
Session Chairs: Jay Brannam, ATK & Michael Thornton, NSWC
- ▶ Gun & Missile Modeling & Simulation
Session Chairs: Mike Stankus, EG&G Technical Services, Inc. & Steve Piper, Piper Pacific International

	Small Arms Systems	Gun & Missile Systems		
Time	Landmark B	Cumberland A-C	Landmark A	Reunion GH
	Modeling & Simulation	Energetics	Emerging Technologies	Modeling & Simulation
3:30	9961/9962 - 40mm Low & Medium Velocity Munitions <i>Mr. Cheng Hok Aw, Singapore Technologies Kinetics</i>	10176 - Development of a Solventless Propellant for Use in 120mm Tank Training Rounds <i>Mr. Jim Wedwick, ATK</i>	9974 - Technology Trends in Fuzing and Munitions Power Sources <i>Mr. Oliver Barham, U.S. Army RDECOM-ARDEC</i>	10158 - Pyrotechnic Shock Loading of the M82 Percussion Primer in the M777 Light Weight Howitzer Magazine Assembly <i>Ms. Kathryn Hunt, Marine Corps Systems Command</i>
3:50	9898 - Application of IWARS in Small Arms Development <i>Mr. Alex Lee, U.S. Army ARDEC</i>	10001 - Ageing Effects on Performance of Small and Medium Calibre Ammunition <i>Mr. Chris Van Driel, TNO Defence, Security and Safety</i>		9908 - Numerical and Experimental Comparison of Muzzle Brake Impulse Reduction on a 120mm Cannon System <i>Mr. Robert Carson, Benet Laboratories, U.S. Army ARDEC</i>
4:10	9909 - Small Arms Modeling and Simulation <i>Mr. Clinton Fischer, U.S. Army RDECOM-ARDEC</i>	10229 - The 155MM M795 Artillery Shell Loaded with IMX-101 <i>Mr. Anthony DiStasio, U.S. Army ARDEC & Mr. Michael Ervin, BAE Systems</i>	10143 - Low Volume, Negligible EMI Advanced Guided Bullet and Mortar Flight Control Actuators <i>Dr. Ron Barrett, University of Kansas</i>	10350 - Scalable Lethality: 'Dial-a-Yield' Approach to Greater Precision Engagement <i>Mr. Henry Kerwien, U.S. Army ARDEC</i>
	Non-Lethal			
4:30	10070 - Advancements in Personnel Incapacitation Methodologies for Multiple Projectile Cartridges <i>Mr. Stephen Swann, Army Research Laboratory</i>		10224 - Warfare Has Changed – So Should Have Methods: Experimental Investigation of the Performance of Modern Medium and Large Calibre Ammunition in Urban Terrain <i>Mr. Theo Verhagen, TNO Defence, Security and Safety</i>	9707 - Modeling of Fluid Energy Milling Process <i>Mr. Mohamed (Mo) Elalem, U.S. Army ARDEC</i>

	Small Arms Systems	Gun & Missile Systems		
4:50	10226 - Testing Non-lethals: Finding the Right Tools for the Job <i>Mr. Pascal Paulissen, TNO Defence, Security and Safety</i>			

5:10 pm CONFERENCE ADJOURNED FOR THE DAY

THURSDAY, MAY 20, 2010

7:00 am - 11:00 am Registration Open - Landmark Circle

7:00 am - 8:00 am Continental Breakfast - Landmark Ballroom Foyer

8:00 am - 9:40 am **BREAKOUT SESSIONS**

- ▶ PM MAS
Session Chair: Chris Grassano, PM MAS
- ▶ JSSAP
Session Chair: Joel Goldman, U.S. Army ARDEC
- ▶ Tactical Missiles & Rockets
Session Chairs: Ed DePasqual, Nammo Talley, Inc. & John Bednarz, Raytheon Company
- ▶ Joint Interest
Session Chairs: Doug Wong, PM MAS & Mike Stankus, EG&G Technical Services, Inc.

	Small Arms Systems	Gun & Missile Systems	
Time	Landmark B	Landmark A	Reunion GH
	PM MAS		
8:00	<ul style="list-style-type: none"> • An Overview of Non-Standard Ammunition <i>LTC Robert Dionisio</i> 	Distinguished Speaker: <i>Mr. Edgar Fosheim, Nammo AS, Norway</i>	
8:30	<ul style="list-style-type: none"> • Training Ammunition Safety Initiatives <i>LTC Robertson, Product Director</i> • 40MM Ammunition: Evolving and Emerging Requirements <i>MAJ Marc Meeker, Assistant Product Manager, Medium Caliber Ammunition</i> • Small Caliber Ammunition: Enhancing Capabilities <i>LTC Jeffrey Woods, Product Manager, Small Caliber Ammunition</i> 	Distinguished Speaker: <i>Mr. Patrick (Kevin) Peppe, Vice President, Naval Weapon Systems, Raytheon Company</i>	
	JSSAP	Tactical Missiles & Rockets	Joint Interest
9:00	9855 - Lightweight Small Arms Technologies <i>Mrs. Kori Phillips, U.S. Army ARDEC</i>		10142 - Hovering Precision Weapons (HPW): Enabling Precise Surgical Strike and Collocated Close Air Support from Tactical to Strategic Distances <i>Dr. Ron Barrett, University of Kansas</i>

JOINT ARMAMENTS CONFERENCE
THURSDAY, MAY 20, 2010

	Small Arms Systems	Gun & Missile Systems	
9:20	10188 - JSSAP Futures 2012-2020 <i>Dr. Barton Halpern, U.S. Army ARDEC</i>	9714 - Demonstration and Validation of Lead-free Ballistic Modifier for Rocket Propellants <i>Dr. Sarah Headrick, ATK</i>	10228 - CROWS II Vehicle Integration <i>Mr. Joseph Scheneck, PE, U.S. Army ARDEC</i>

9:40 am - 11:00 am BREAKOUT SESSIONS

- ▶ JSSAP
Session Chair: Joel Goldman, U.S. Army ARDEC
- ▶ Tactical Missiles & Rockets
Session Chairs: Ed DePasqual, Nammo Talley, Inc. & John Bednarz, Raytheon Company
- ▶ Joint Interest
Session Chairs: Doug Wong, PM MAS & Mike Stankus, EG&G Technical Services, Inc.

	Small Arms Systems	Gun & Missile Systems	
Time	Landmark B	Landmark A	Reunion GH
	JSSAP	Tactical Missiles & Rockets	Joint Interest
9:40	9895 - National Small Arms Center Update <i>Mr. Frank Puzycski, JSSAP Office, U.S. Army ARDEC</i>	<i>Morning Break - Landmark Ballroom Foyer</i>	
10:00	10193 - Advanced Lethal Armament Technology for Small Arms <i>Mrs. Sabbian Registe, ARDEC-RDECOM</i>	10074 - Advanced Precision Kill Weapons System II <i>LCDR Nick Green, USN, Direct and Time Sensitive Strike Weapons PMA-242</i>	10175 - Experimentation in Integrated Weapons Solutions for Unmanned Systems – Getting Past the Demonstration <i>Mr. Paul Balutis, iRobot</i>
10:20	9916 - Advanced Fire Control Technology for Small Arms Army Technology Objective (ATO) <i>Mr. Terence F. Rice, U.S. Army ARDEC</i>		9827 - Environmentally Acceptable Alternatives to Lead Azide and Lead Styphnate <i>Dr. Michael Williams, Pacific Scientific EMC</i>
10:40	9539 - Integrated Rifle Barrel Reference Sensor with Position Compensating Reticle <i>Mr. Slobodan Rajic, Oak Ridge National Laboratory</i>		10593 - Non-Incendiary Artillery Marking and Illumination Solutions <i>Mr. George Kurzik, General Dynamics – Ordnance and Tactical Systems Mr. Ed Schmidt, Cyalume Technologies</i>

11:00 am - 6:00 pm CONTRACTOR FIRING DEMONSTRATION Promotional Partner:
 ▶ *Session Chair: Sal Fanelli, U.S. Marine Corps*



11:00 am - 11:30 am Board Buses for Firing Demonstration - Hotel Lobby

11:30 am - 12:40 pm Buses En Route for Firing Range

12:40 pm - 1:40 pm Texas BBQ Lunch Provided by LaRue Tactical

1:40 pm - 4:30 pm Firing Demonstration - Spartan Tactical

3:30 pm - 4:45 pm Buses En Route for Hotel (first bus departs at 3:30 pm; last bus departs at 4:45 pm)

POSTER PRESENTATIONS

The following posters will be displayed in Marsalis Hall throughout the conference. Authors will be available for discussion during morning and afternoon breaks, as listed in the agenda. Posters will be displayed in numerical order.

► *Session Chairs: Mr. Steve French, BAE Systems & Mr. Matt Ohlson, ATK*

9893 - Development of a Nondestructive Testing Field Inspection Vehicle Designed to Scan Cylindrical Structures
Mr. Cory Mettler, American Science and Technology

9925 - Case Studies for Improved Sustainment of Bullet and Bullet Assembly Machines
Mr. Michael Coventry, Bliss Clearing Niagara Technical Services

10005 - Fire Control Systems for Heavy Machine Guns: Winning the Current Fight while Simultaneously Modernizing for the Future
Mr. Richard Hollen, VingTech Corporation

10100 - Liquid Ceramic Coatings for Signature Reduction in Small Arms
Dr. Leah Leavitt, NIC Industries, Inc.

10126 - New Power, Lightweight Materials, and Sustainable Design Tools for Small Arms Systems
Mr. Blase Leven, Kansas State University

10128 - Using Triboluminescence to Detect Impacts for Defense Applications
Dr. William Hollerman, University of Louisiana at Lafayette

10138 - FEM Analysis of a Barrett M99 0.50 Caliber Rifle Barrel
Dr. Gary Anderson, South Dakota State University

10145 - Determining Residual Stress of Ta Alloy Gun Tube
Dr. Tao Huang, South Dakota State University

10155 - Characterization of the Emergent Flame and Transient Pressure History of the M299 Ignition Cartridge at 70°F and -50°F
Mr. Jon Conner, National Technical Systems (NTS)

10168 - Individual Airburst Weapon System (IAWS)
Mr. Ryan Hurt, ATK

10192 - Miniature Integrated Capacitive Discharge Unit for Detonation and Ignition
Mr. Frank Duva, Novacap, Inc.

10236 - Analysis of Requirements for Engaging Defilade Targets with 40mm Grenades
Dr. Kevin Massey, Georgia Tech Research Institute

10482 - Small Arms Mounted Radar Sensor for Improving Aiming Accuracy

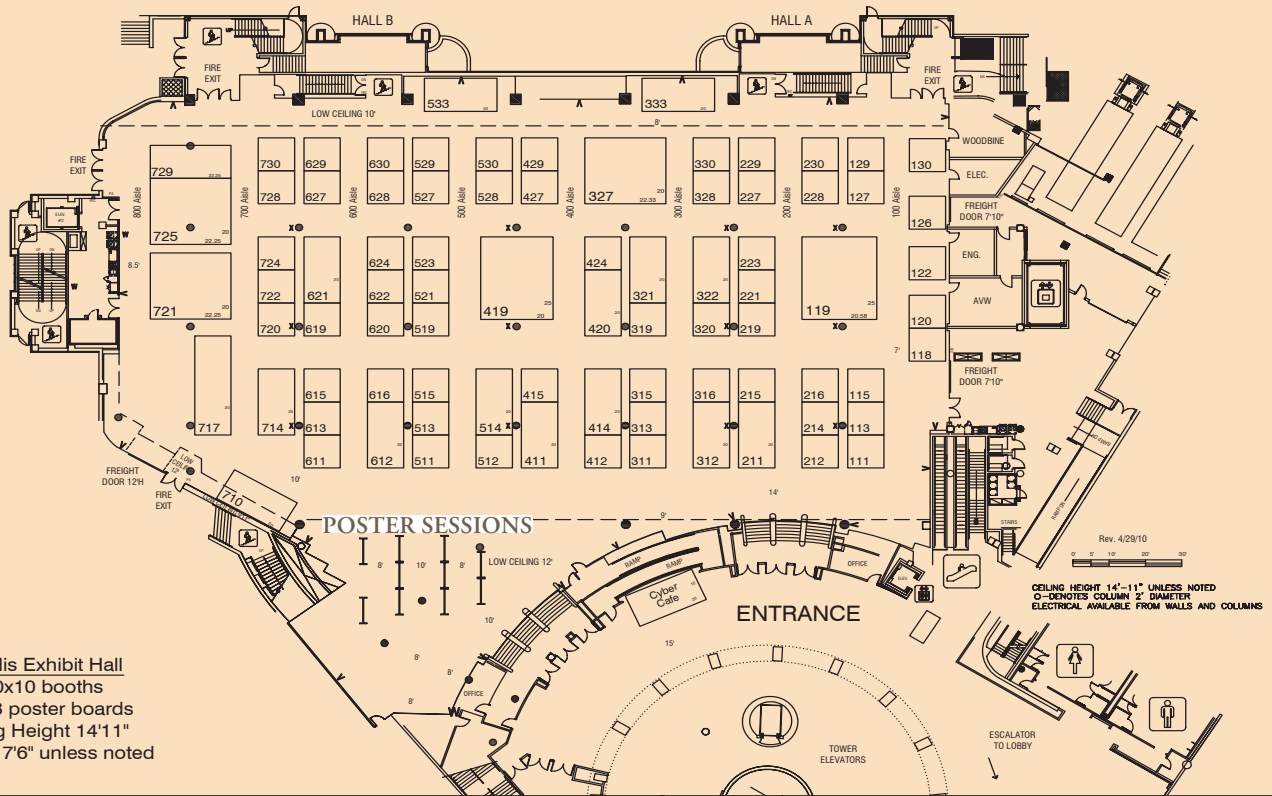
Dr. Ram Narayanan, The Pennsylvania State University

10578 - Small Caliber Dispersion Modeling
Mr. Jeff Siewert, Arrow Tech Associates, Inc.

EXHIBIT INFORMATION

Booth Number	Company Name
427.....	AAI Corporation
319.....	Advanced Armament Corporation
514.....	Aerojet
228.....	Aimpoint, Inc.
528.....	Alcoa Defense
412.....	American Rheinmetall Munitions, Inc.
513.....	Anniston Army Depot
725.....	ARDEC
530.....	Ares, Inc.
523.....	Arrow Tech
419.....	ATK
722.....	Barrett
612.....	Bulldog Tactical Equipment
321.....	Colt Defense, LLC
424.....	Combined Systems, Inc.
320.....	Competitive Edge Gunworks
333.....	Contract Fabrication & Design
529.....	Cornversion
512.....	Dayton T. Brown, Inc.
126.....	DTI Associates
710.....	ELCAN Optical Technologies
628.....	EMA Tactical
415.....	ENSINGER

Joint Armaments Conference, Exhibition & Firing Demonstration
May 17-20, 2010
Hyatt Regency Dallas
Dallas, Texas



JOINT ARMAMENTS CONFERENCE
EXHIBIT INFORMATION

119.....	FNH USA, Inc.
219.....	GEMTECH
621.....	General Dynamics Amphibious Systems
327.....	General Dynamics Armament and Technical Products
322.....	General Dynamics-OTS
316.....	GLOCK, Inc.
527.....	Heckler & Koch
115.....	Hogue, Inc.
118.....	Institute for Advanced Technology at the University of Texas
328.....	ITT Enidine, Inc.
717.....	Joint Service Small Arms Program
313.....	Kistler Instrument Corporation
216.....	Knight's Armament Company
627.....	L-3 Fuzing & Ordnance Systems
227.....	Lancer Systems
622.....	LaRue Tactical
212.....	Laser Devices, Inc.
122.....	Lasermax
724.....	Magpul Industries Corporation
730.....	Manroy USA
130.....	Martin Electronics, Inc.
511.....	MAST Technology, Inc.
629.....	Metal Storm, Inc.
720.....	MILKOR USA, Inc.
429.....	MSC Software Corporation
411.....	Nammo Talley, Inc.
521.....	National Technical Systems Corporation
613.....	NNSA's National Secure Manufacturing Center
414.....	Nobles Manufacturing, Inc.
315.....	Olin-Winchester
311.....	Otis Technology
619.....	PCB Piezotronics
214.....	Pelican Products
728.....	Platt Mounts - USA, Inc.
721.....	PM Soldier Weapons
211.....	Remington Arms
519.....	Ringfeder Corporation
129 & 215.....	RUAG Ammotec
533.....	S&T Daewoo
111.....	Sabre Defence Industries, LLC
113.....	Samson Manufacturing
611.....	Schmidt & Bender GmbH
330.....	Sierra Bullets
127.....	Sig Sauer
229.....	Small Arms Defense Journal
515.....	Smith & Wesson
120.....	Spa-Defense
630.....	Streamlight, Inc.
615.....	Sturm, Ruger
230.....	SureFire
223.....	Taser International
420.....	Trijicon
616.....	US Army Aberdeen Test Center
729.....	US Army RDECOM
312.....	US Ordnance
624.....	UTRON, Inc.
620.....	Vectronix, Inc.
714.....	VingTech Corporation
221.....	Wilcox Industries

Exhibit Hours:

Monday, May 17:

5:00pm - 6:30pm Opening Reception

Tuesday, May 18:

9:00am - 5:30pm

5:30pm - 7:00pm Reception

Wednesday, May 19:

9:00am - 3:30pm

Save the Date!!!!

**46th Annual Armament
Systems: Gun & Missile
Systems Conference &
Exhibition**

April 11-14, 2011

Miami, FL

www.ndia.org/meetings/1590

**International Infantry &
Joint Services Small Arms
Systems Symposium**

May 23-26, 2011

Indianapolis, IN

www.ndia.org/meetings/1610



ATK is a premier aerospace and defense company with approximately \$4.8 billion in annual sales, more than 17,000 employees, and operations in 21 states and internationally. We bring non-traditional approaches to the market, with speed and innovation. ATK has signature expertise in delivering timely, advanced and affordable capabilities with reliable performance – in many cases economically upgrading current inventories with force multiplier affect.

ATK continues to expand its business as a leading provider of enhanced lethality and survivability solutions with core competencies in facility and supply chain management; small-and medium-caliber ammunition design and manufacture, medium-caliber gun system design and manufacture, and advanced propellant and energetics production. We are the technology leader in law enforcement, hunting and shooting sports ammunition, accessories and reloading supplies.

Our product line spans the breadth of individual and crew-served applications, from conventional and special-mission pistol and rifle ammunition, to 30mm and large-caliber for air, land and sea platforms. We have extended our supply chains to include not only U.S. and NATO specification ammunition, but non-standard products as well.

We are pioneering the development of enhanced tactical ammunition, including air bursting munitions, next generation energetics, and advanced propellants that will increase performance.

ATK offers an affordable 70mm precision system, Guided Advanced Tactical Rocket (GATR), which uses a semi-active laser guidance package to achieve extreme accuracy against both stationary and moving targets. GATR is a lock-on before or after launch system that supports integration on fixed/rotary wing and Unmanned Aircraft Systems platforms and is compatible with existing 2.75-inch launcher hardware.

ATK continues to enter new international markets supporting U.S., NATO, and allied forces with affordable, interoperable solutions in support of freedom. These offerings include mission-critical tactical systems and personal protection equipment, including load-bearing vests, hydration packs, holsters, bags, and slings.

ATK brings unmatched reliability and lethality in integrated weapon systems. We offer added value with fully integrated electronics and fire control capabilities supporting our innovative chain gun technology and medium-caliber ammunition systems, presenting a complete lethality package for today's ground and air platforms.

Additional ATK news and information can be found at www.atk.com.

GENERAL DYNAMICS

Armament and Technical Products

General Dynamics Armament and Technical Products, located in Charlotte, N.C., provides a broad range of system solutions for military and commercial applications.

The company designs, develops and produces high-performance weapon and armament systems, defensive armor, countermeasure systems and aerospace composite solutions, as well as off-road axle and suspension systems. It is also a leading U.S. producer of biological and chemical detection systems.

Contact Info:

Kevin Sims
Business Development Manager
Four LakePointe Plaza
2118 Water Ridge Parkway
Charlotte, NC 28217
Phone: 704-714-8291
Fax: 702-714-8212

LaRue Tactical



Systems for every optic, laser and NVD used by our soldiers. Our facilities house a large array of CNC work-centers, assembly, testing, inventory, and shipping areas. We are co-located with an underground shooting / testing range.

LaRue is known for providing the Warfighter the finest hardware available at the best value. Our specific niche is speed and agility in the production and delivery of field-worthy prototypes, integrating our patented Quick-Disconnect Speed Lever design into a variety of MIL-STD-1913 related products and accessories. The “repeatable” attributes of our manufactured hardware, even under the harshest conditions and most rigorous abuse have given LaRue an industry leadership reputation.

LaRue also designs and manufactures highly-accurate and dependable weapons systems, including the new 7.62 Optimized Battle Rifle (OBR), The OBR is an accurized gas-impingement AR-platform rifle that is available with 16”, 18” or 20” barrels. Almost every part of the OBR is manufactured in-house, providing the ultimate in quality control that yields a consistent, sub-MOA rifle.

LaRue Sniper Targets are used by the sniper community world-wide. These robust steel targets are available in auto-resetting and remote-resetting models for calibers ranging from 5.56 through 50BMG. LaRue also provides several designs that are free-standing, reactive targets.

MEGGITT

smart engineering for
extreme environments

Meggitt Defense Systems Inc. (MDSI), specializes in the design, development and production of state-of-the-art medium caliber Linear Linkless ammunition handling systems and large caliber compact autoloaders in support of the United States military and her allies.

MDSI has a solid track record in meeting design-to-production requirements for increased capacity, reliability, and volumetric storage efficiency for ammunition handling systems.

MDSI provides a wide range of medium caliber Linear Linkless systems, all of which have been battle-proven. These include: AC-130U Gunship - 25mm, 3,000 rounds; Apache helicopter - 30mm, 1,200 rounds and 250 rounds (Combo PAK); Blackhawk helicopter - two 30mm magazines, 1,200 rounds and 660 rounds; Phalanx Reloaders – 20mm, 1,500 rounds; and LALS Reloaders – 20mm, 2,100 rounds. Additionally, development programs are underway for 30mm Mk44 Linkless feed systems, 35mm systems, and 40mm systems. Further, a new 20mm Linkless system is now in production, replacing the existing linked system on the Cobra helicopter.

Linkless feeding systems allow simultaneous upload and download of rounds and spent cases (where required), providing weapon system efficiency on the battlefield. Linear Linkless systems are more efficient, lighter, and, most importantly, are more reliable than linked systems. Our feed and transfer systems maintain complete control of rounds as they are fed directly into the gun without wasted space. In the end, this means maintaining multi-year high reliability records. More importantly, it means that in the heat of combat war fighters don't have to be concerned with whether or not their ammunition system will jam and fail them.

MDSI has developed large caliber Compact Autoloader and magazine systems for 105mm, 120mm, 140mm and 155mm. They are electrically or hydraulically-driven, fully automatic battlefield robotics systems. Examples range from prototypes for Main Battle Tanks to today's Stryker Mobile Gun System and to next-generation combat platforms

As the technology leader in ammunition handling and storage systems, Meggitt Defense Systems Inc. is proud to be a sponsor for the NDIA Joint Armaments Conference.

NDIA

National Defense Industrial Association

NATIONAL DEFENSE INDUSTRIAL
ASSOCIATION

2111 WILSON BOULEVARD, SUITE 400

ARLINGTON, VA 22201-3061

(703) 522-1820

(703) 522-1885 FAX

WWW.NDIA.ORG

JOINT ARMAMENTS CONFERENCE, EXHIBITION & FIRING DEMONSTRATION

*“21st Century Weapon
Systems - Providing the
Right Response”*



MAY 17-20, 2010

HYATT REGENCY DALLAS

DALLAS, TEXAS

THANK YOU TO OUR PROMOTIONAL PARTNERS!



BAE SYSTEMS

GENERAL DYNAMICS

Armament and Technical Products

LaRue
Tactical

MEGGITT

smart engineering for
extreme environments

WWW.NDIA.ORG/MEETINGS/0610