

AT THE HEART
OF THE MISSION

NDIA



UPDATED 5.15.19



2019 **ARMAMENT** SYSTEMS FORUM

Leveraging Armament Technology Integration to Achieve
Modernization, Overmatch, and Operational Readiness

June 3 – 6 | Fredericksburg, VA | NDIA.org/Armaments19

AGENDA

MONDAY, JUNE 3 (DISTRIBUTION A)

11:00 – 5:00 pm **REGISTRATION**
EXHIBIT HALL A LOBBY

TUTORIALS

Ballroom A

Ballroom B

Ballroom C

12:30 – 2:00 pm

TUTORIAL 1:

U.S. Export Controls Related to Technology

BALLROOM A

Johanna Reeves

Founding Partner, Reeves & Dola, LLP

TUTORIAL 2:

Requirements Capability Process Intelligence

BALLROOM B

Dwayne Hynes

Acquisition Intelligence Specialist,
USD, Department of Defense

TUTORIAL 3:

Middle Tier Acquisition – Section 804

BALLROOM C

Lynne Giordano

Professor of Acquisition Management,
Defense Systems Management
College, Defense Acquisition
University

2:00 – 3:30 pm

TUTORIAL 4:

Industrial Base Cyber Risks and Protection

BALLROOM A

Susan Warshaw Ebner

Partner, Stinson LLP

Rolando Sanchez

Sanchez PLC

TUTORIAL 5:

What Gun and Ammunition Designs Need to Know About Case-Chamber Interaction

BALLROOM B

Jeff Siewert

Systems Engineer, Arrow Tech
Associates

TUTORIAL 6:

Evolving Platform and Armament System Integration

BALLROOM C

Dr. Joshua Keena

Assistant Professor Automotive/
Weapons Thread Leader, U.S. Military
Academy at West Point

Mark Signorelli

BAE Systems Platforms and Services

3:30 – 5:00 pm

TUTORIAL 7:

Artificial Intelligence

BALLROOM A

Ross Arnold

Senior Research Engineer for Artificial
Intelligence, Combat Capabilities
Development Center Armaments
Center, U.S. Army Futures Command

Dr. Jorge Buenfil

Model-Based Systems Engineer Lead,
Combat Capabilities Development
Center Armaments Center, U.S. Army
Futures Command

TUTORIAL 8:

DOD Foreign Comparative Testing Overview

BALLROOM A

Col Doug Creviston, USAF

Director of the DoD Comparative
Testing Office, OUSD R&E

TUTORIAL 9:

Intellectual Property Objectives, Criteria, and Approach

BALLROOM A

Col Wesley Hallman, USAF (Ret)

Senior Vice President, Policy and
Strategy, NDIA

Corbin Evans

Director, Regulatory Policy, NDIA

TUESDAY, JUNE 4 – GENERAL SESSION (DISTRIBUTION A)

- 7:00 am – 6:00 pm **REGISTRATION**
EXHIBIT HALL A LOBBY
- 7:00 – 8:00 am **NETWORKING BREAKFAST**
GRAND BALLROOM FOYER
- 8:00 – 8:10 am **WELCOME AND OPENING REMARKS**
GRAND BALLROOM
- Dave Broden**
NDIA Armament Division Chair
- Dave Chesebrough**
Vice President, Divisions, NDIA
- 8:10 – 8:30 am **WELCOME FROM TEAM CRUCIBLE**
GRAND BALLROOM
- John Garman**
President, Crucible
- 8:30 – 9:00 am **NDIA ENTERPRISE VISION AND POLICY INITIATIVES**
GRAND BALLROOM
- MG James Boozer, USA (Ret)**
Executive Vice President, NDIA
- Col Wesley Hallman, USA (Ret)**
Senior Vice President, Policy, NDIA
- 9:00 – 9:30 am **KEYNOTE SPEAKER**
GRAND BALLROOM
- MG Brian Cummings, USA (Invited)**
Program Executive Officer, Ground Combat Systems (PEO GCS)
Invited
- 9:30 – 10:00 am **FEATURED SPEAKER**
GRAND BALLROOM
- BG Alfred Abramson, USA**
Program Executive Officer & Senior Commander, Picatinny Arsenal, Joint Program Executive Office Armaments and Ammunition (JEPO A&A)
- 9:30am – 6:30pm **EXHIBIT HALL OPEN**
EXHIBIT HALL A

- 10:00 – 10:30 am** **NETWORKING BREAK & POSTER REVIEW**
EXHIBIT HALL A
- 10:30 – 11:00 am** **FEATURED SPEAKER**
GRAND BALLROOM
COL John Rafferty, USA
Director, Long Range Precision Fires Cross Functional Team, U.S. Army Futures Command
- 11:00 – 11:30 am** **FEATURED SPEAKER**
GRAND BALLROOM
John Hedderich III
Director, CCDC Armament Center, U.S. Army Futures Command
- 11:30 – 12:00 pm** **FEATURED SPEAKER**
GRAND BALLROOM
Dr. Juanita Christenson (Invited)
Executive Director, CCDC Aviation and Missile Center, U.S. Army Futures Command
- 12:00 – 1:00 pm** **NETWORKING LUNCH**
EXHIBIT HALL A
- 1:00 – 1:30 pm** **FEATURED SPEAKER**
GRAND BALLROOM
Ashley Johnson
Technical Director, NSWC Indianhead Explosive Ordnance Disposal Technology Division
- 1:30 – 2:00 pm** **FEATURED SPEAKER**
GRAND BALLROOM
Dr. David Lambert
Chief Scientist, Munitions Directorate, Air Force Research Laboratory

SMALL ARMS TRACK (DISTRIBUTION A)

ROOM AF

Joint Service Small Arms Synchronization (JSSAS) Panel

1:00 – 2:00 PM

MAJ Ian Welch

MILDEP, JSSAP Office, Combat Capabilities Development Center, Armaments Center, U.S. Army Futures Command
Moderator

Matthew Walker

Capabilities Developer, Soldier Lethality Cross Functional Team, U.S. Army Futures Command

Christopher Woodburn

Capabilities Development Director

Col Enrico Venditti, USAF

US Air Force Security Forces Center

Craig LaMudge

Office of Specialized Capabilities, US Coast Guard

LCDR Peter Downes, USN

DCNO N9
Invited

LTC Marcos Cervantes, USA

PEO SOF Warrior

2:00 – 2:30 pm

WEAPONS FOR A DISAGGREGATE BATTLE

GRAND BALLROOM

MG Robert Scales, USA (Ret)

Former Commandant, U.S. Army War College

SMALL ARMS TRACK

ROOM AF

Joint Services Small Arms Program Introduction

2:00-2:05 PM

Augustine Funcasta

Chief JSSAP Office, CCDC Armaments Center, U.S.
Army Futures Command

Joint Services Small Arms Requirements Integration (JSSARI)

2:00 – 2:15 PM

Mark McFadden

JSSARI Working Group Chairman, Combat
Capabilities Development Center, Armaments Center,
U.S. Army Futures Command

Joint Science And Technology Advisory Council (JSATC)

2:15 – 2:30 PM

Marc Ritt

JSATC Deputy Chairman, CCDC Armaments Center,
U.S. Army Futures Command

2:30 – 3:00 pm

NETWORKING BREAK & POSTER REVIEW

EXHIBIT HALL A

3:00 – 3:45 pm

USMC CAPABILITY OBJECTIVES AND PROGRAMS

GRAND BALLROOM

Col Michael Manning, USMC

USMC Portfolio Manager Ground Combat Element Systems
Moderator

LtCol Tim Hough, USMC

Program Manager, Infantry Weapons

LtCol Brad Sams, USMC

Program Manager, Fires, USMC

John Knapp

Program Manager, Infantry Combat Equipment, USMC

3:45 – 4:30 pm

JOINT NON-LETHAL WEAPONS DIRECTORATE (JNLWD)

GRAND BALLROOM

Kevin Swenson

Acquisition Division Chief, Joint Non-Lethal Weapons Directorate (JNLWD)

David Law

Technology Division Chief, Joint Non-Lethal Weapons Directorate (JNLWD)

4:30 – 5:00 pm

FEATURED SPEAKER

GRAND BALLROOM

Charlie Zisette

Executive Director, National Armaments Consortium

5:00 – 5:10 pm

CLOSING REMARKS

EXHIBIT HALL A

5:00 – 6:30pm

RECEPTION IN EXHIBIT HALL

EXHIBIT HALL A

SMALL ARMS TRACK

ROOM AF

Joint Services Small Arms Program Portfolio

3:00 – 3:30 PM

Terence Rice

Projects Managements Engineer, CCDC Armaments Center, U.S. Army Futures Command

Jssap Special Topics Update

3:30 – 4:00 PM

Matthew Moeller

Project Officer, Next Gen Squad Weapons Technologies, CCDC Armaments Center, U.S. Army Futures Command

Adam Jacob

Suppressor IPT Lead, Signature Suppression, CCDC Armaments Center, U.S. Army Futures Command

Small Arms Awards Ceremony

4:00 – 5:00 PM

Chinn Award

Thomas Nelson

Presented by Dan Shea

Hathcock Award

Bryan Litz

Presented by Sal Fanelli

Ambrose Award

Arrow Tech Associates, Inc accepted by

Jeff Siewert

Presented by Sal Fanelli

Professional Service Award

Mike Tauber, in memoriam

Presented by Brian Berger

	Small Arms Track: Session 1 Room A, Distribution A	GARM Track: Session 1 Room CD, Distribution A	UEA Track: Session 1 Room BE, Distribution D
7 am	BREAKFAST		
7:30 am	<p>Small Arms Administrative Announcements</p> <p>Brian Berger NDIA Small Arms Committee Chair</p>	<p>GARM Administrative Announcements</p> <p>Matt Phillips NDIA GARM Committee Chair</p>	<p>UEA Objectives, Purpose, Challenges, Opportunities</p> <p>Alan Kull NDIA UEA Committee Chair</p>
7:40 am	<p>21834</p> <p>Modern Trends, Threats, and Developments in Global Ordnance</p> <p>Dan Shea Phoenix Defence</p>		<p>21797</p> <p>Cost Effective C-UAS using COTS Components to improve Exchange Rate</p> <p>Howard Kent Armor Development Group LLC</p>
8:00 am	<p>PM Maneuver Ammunitions Systems (MAS) Panel</p> <p>COL Hector Gonzalez Project Manager, Maneuver Ammunition Systems <i>Moderator</i></p> <p>LTC Andre Johnson, USA Product Manager, Medium Caliber Ammunition</p> <p>LTC Andrew Lunoff, USA Product Manager, Small Caliber Ammunition</p>	<p>CCDC Armament Center GARM Related System Technology</p> <p>Mike George Acting Director of Technology, Strategic Technology Investment Office</p>	<p>21869</p> <p>Semi-Autonomous Slew and Firing to defeat Highly Maneuvering Aerial Targets</p> <p>Cliff Chang Combat Capabilities Development Center Armaments Center, U.S. Army Futures Command</p>
8:30 am		<p>AMRDEC GARM Related Technology</p> <p>Dr. Michael Richman CCDC Aviation and Missile Command, U.S. Army Futures Command</p>	<p>21971</p> <p>40MM Low Velocity Counter Unmanned Aerial System</p> <p>Cheng Hok Aw Advanced Material Engineering</p>
9:00 am	<p>PM Soldier Weapons Panel</p> <p>COL Elliott Caggins, USA Product Manager, Soldier Weapons <i>Moderator</i></p> <p>LTC Jason Bohannon, USA Product Manager, Next Generation Weapons</p> <p>LTC Steven Power, USA Product Manager, Soldier Weapons</p>	<p>Close Combat Support to Army Modernization Priorities</p> <p>COL Jon Slater, USA Project Manager, Close Combat Systems</p>	<p>21906</p> <p>How Block Chain and Smart Contracts will impact Armament Systems</p> <p>Ralph Tillinghast CCDC Armaments Center, U.S. Army Futures Command</p>
9:30 am	<p>Peter Errante Product Director, Crew Served Weapons</p> <p>Matthew Walker Capabilities Developer, Soldier Lethality Cross Functional Team, U.S. Army Futures Command</p>	<p>Combat Ammunition Systems Support to Army Modernization Priorities</p>	<p>TBD</p> <p>21911</p> <p>Pulsed Power Developments for Directed Energy Systems</p> <p>Charlie Wiesel VIS LLC</p>

	Small Arms Track: Session 1 Room A, Distribution A	GARM Track: Session 1 Room CD, Distribution A	UEA Track: Session 1 Room BE, Distribution D
10 am	BREAK		
10:30 am	<p>21818</p> <p>Unconventional Emerging Technology Armament Systems</p> <p>Vincent Battaglia BML Tool Manufacturing</p>	<p>Next Generation Combat Vehicle (NGCV) Vision</p> <p>COL Warren Sponsler, USA Lead, Next Generation Combat Vehicles Cross Functional Team, U.S. Army</p>	<p>21968</p> <p>Reference Architecture for Deep Learning Based Security Systems</p> <p>Jorge Buenfil CCDC Armaments Center, U.S. Army Futures Command</p>
10:50 am	<p>Lightweight Small Cal Ammunition Panel</p> <p>Todd Townsend PM, MAS <i>Moderator</i></p> <p>Mark Owens True Velocity</p> <p>Lanse Padgett PCP</p> <p>Joe Gibbons MAC</p> <p>Pierre Lemay GD-OTS Canada</p> <p>Gino Spinos Concurrent Technology Corp (CTC)</p>	<p>NGCV and Related Weapon and Ammunition Framework Guidelines</p>	<p>21802</p> <p>Multicore Considerations for Safety Critical Software Applications</p> <p>Brian Connell CCDC Armaments Center, U.S. Army Futures Command</p>
11:10 am		<p>NGCV System, Technology, and Vision Panel</p> <p>LTC Andre Johnson, USA Product Manager, Medium Caliber Ammunition</p> <p>Robert Ruhland Northrop Grumman</p> <p>Tim Brumfield NGC-MESA</p> <p>Matt Phillips General Dynamics</p> <p>Gary Milcheck Combat Capabilities Development Center Armaments Center, U.S. Army Futures Command</p> <p>Jeff Hart Combat Capabilities Development Center Armaments Center, U.S. Army Futures Command</p>	<p>22036</p> <p>Low Cost COTS-Based VTOL UAS for Stealthy Take Downs</p> <p>Robert Serino Applied Research Associates, Inc.</p>
11:30 am			<p>Applying Multi-Agent Swarm Artificial Intelligence to Armament Systems</p> <p>Ross Arnold Combat Capabilities Development Center Armaments Center, U.S. Army Futures Command</p>
12 pm	LUNCH		

	Small Arms Track: Session 2	Small Arms Track: Session 3	GARM Track: Session 1	UEA Track: Session 1
	Room A, Distribution A	Room F, Distribution A	Room CD, Distribution A	Room BE, Distribution D
1:00 pm	<p>Fire Control Technology and System Panel</p> <p>Terence Rice Projects Management Engineer, JSSAP <i>Government Moderator</i></p> <p>Bob Guarasi Business Development, Wilcox Industries <i>Industry Moderator</i></p>	<p>21287</p> <p>Propellant Optimization</p> <p>Tyler Holland CCDC Armaments Center, U.S. Army Futures Command</p> <p>Andrew Caldwell Olin Corp – Winchester Division</p>	<p>Long Range Precision Fires (LRPF) Panel</p> <p>Dave Broden Armaments Division Chair <i>Moderator</i></p> <p>COL John Rafferty LRPF CFT Director, U.S. Army Futures Command</p> <p>Ole Knudson Northrop Grumman</p>	<p>Distributed, Coordinated, and Cooperative Defeat Technologies</p> <p>Dr. David Lambert Air Force Research Laboratory</p>
1:20 pm	<p>Paul Koerner PM Soldier Weapons</p> <p>Doug Cohen PM Soldier Weapons</p> <p>Lloyd Luedtke DPM SSL</p>	<p>21843</p> <p>Contributing Factors in Small Cal Pierced Primers</p> <p>Andy Boman Northrop Grumman Innovation Systems</p>	<p>David Musgrave CCDC, U.S. Army Futures Command</p> <p>Rich Granitzki CCDC, U.S. Army Futures Command</p>	
1:40 pm	<p>Ross Towers Fire Control, U.S. Army Futures Command</p> <p>Darren Ward Fire Control, U.S. Army Futures Command</p> <p>Dr. Mark Thoreson NSWC Crane</p> <p>Dean Kissinger PM, IVAS</p>	<p>21881</p> <p>Environmentally Benign Composition for the M209 Shotshell Primer</p> <p>Jared Moretti CCDC, U.S. Army Futures Command</p> <p>Jim Wedwick Northrop Grumman Corporation</p>		<p>Emerging Technology System Perspective – Army</p> <p>Craig Robins U.S. Army Space and Missile Defense Command Technical Center</p>
2:00 pm	<p>Tony Bacarella DRS EOIS</p> <p>Emmet Burke BAE Systems</p> <p>Brian Bockmon Aim-Lock Inc</p> <p>Lennart Ljungfelt Aimpoint</p>	<p>21910</p> <p>Incendiary Composition Analytical Study for Small Cal Ammunition</p> <p>Daniel Mansfield Northrop Grumman Corporation, Lake City Army Ammunition Plant</p>	<p>Long Range Precision Fires CCDC AC</p>	<p>Emerging Technology System Perspective – Navy</p> <p>Frank Peterkin Office of Naval Research</p>
2:30 pm	BREAK			
3:00 pm	<p>21832</p> <p>“Gummy” metals – why difficult to cut and what can be done about it</p> <p>Jason Davis NSWC Crane</p>	<p>21830</p> <p>Case Rupture</p> <p>Zachary Krogstad CCDC Armament Center, U.S. Army Futures Command</p> <p>Robert Woolsey Northrop Grumman Corporation</p>	<p>Long Range Precision Fires CCDC Aviation and Missile Center</p>	<p>Emerging Technology System Perspective - USAF</p> <p>Dr. Don Shiffler AFATL Kirtland</p>

	Small Arms Track: Session 2	Small Arms Track: Session 3	GARM Track: Session 1	UEA Track: Session 1
	Room A, Distribution A	Room F, Distribution A	Room CD, Distribution A	Room BE, Distribution D
3:20 pm	21823 0.50 Cal Ball/Trace Cartridge Match Improvements David Stubler Northrop Grumman	21758 Improving Gun Barrel Life and Accuracy George Kontis Gun IQ International LLC	Future Vertical Lift (FVL) and Armament System Panel Dave Broden NDIA Armaments Division Chair <i>Moderator</i>	22044 Enhancing Weapons Capabilities through Smart Sensors Robert Meng Secubit Inc
3:40 pm	21987 AeroShell Armor-Piercing Projectiles Lucius Taylor IV NSWC Crane	21788 100 KPsi Demonstrator Rifle: Over-Proof Round Pressures to Improve Advanced Ballistic Performance Howard Kent Armor Development Group LLC	Michael Colonnello CCDC Armaments Center, U.S. Army Futures Command Bradford McHugh CCDC Armaments Center, U.S. Army	22067 Speed of Battle LTC Johnson, USA WSEC MILDEP, CCDC Armaments Center, U.S. Army Futures Command
4:00 pm	21992 Sound Testing of Small Arms Weapons Laura Best NSWC Crane	21807 Systemic Effects of Cartridge and Weapon Barrel Variation Thomas Gmyrek Caliber .50 APO	Futures Command	21969 Quantifying the Accuracy of Wind Estimation Techniques in Direct Fire Ballistics Tomas Bober CCDC Armaments Center, U.S. Army Futures Command
4:20 pm	21993 High Performance Composite Machine Gun Barrels David Armstrong NSWC Crane	21826 Reevaluating Condemnation Criteria for Barrel Erosion/Wear Anthony Hawthorne Combat Capabilities Development Command, U.S. Army Futures Command	Valkyrie Intelligence Brief Charlie Burgoyne Valkyrie Intelligence	22038 Protecting Smart Launchers using Advanced Anti-Spoofing Steve Alexander L3 Technologies
4:40 pm	22066 Full-Auto Cycle Rate Reducer Transforms M4/M16 in New Full-Automatic Fire Scenario Terrence Bender High Performance Firearms LLC	21890 M14 Short Stroke - Analysis of Ammunition and Weapons System Influencing Factors Elyse Barone CCDC Armaments Center, U.S. Army Futures Command		22064 Virtual Reality Prototyping for Fire Control Platforms David Musgrave CCDC Armaments Center, U.S. Army Futures Command
5:00 pm	NETWORKING RECEPTION			

	Small Arms Track: Session 4	GARM Track: Session 2	GARM Track: Session 3	UEA Track: Session 2
	Room A, Distribution A	Room F, Distribution D	Room CD, Distribution A	Room BE, Distribution D
7 am	BREAKFAST			
7:30 am	Small Arms Administrative Announcements Brian Berger NDIA Small Arms Committee Chair	GARM Administrative Announcements	GARM Administrative Announcements	UEA Objectives, Purpose, Challenges, Opportunities Alan Kull UEA Committee Chair, NDIA Armaments Division
7:40 am	40mm Low Velocity Jay Bell MAST Technology Inc.	22074 XM913 50mm Chain Gun Technology Development Tim Brumfield Northrop Grumman	TBD	Hypersonics Presentation CAPT John Lowry, USN Program Manager Conventional Prompt Strike Strategic Systems Programs
				Hypersonics Presentation David Lambert Chief Scientist, Munitions Directorate, AFRL
8:00 am	21850 M80A1 Dispersion Reduction Zachary Krogstad CCDC Armament Center, U.S. Army Futures Command Steve Redd Northrop Grumman Innovation Systems	21994 Excalibur Shaped Trajectory Arnaldo Colon Precision Indirect Fires, Land Warfare Systems, Raytheon		Hypersonics Presentation Arthur Mabbet Director, Adv High Speed Weapons, Raytheon Missile Systems
				Hypersonics Presentation John Wilcox VP, Advanced Programs & Technology, Northrop Grumman Innovation Systems
8:20 am	21821 Greater Penetration and Lethality for Small Bore Rifle, PDW and Handgun Cartridges Jonathan Berman Ammo and Bullet Mfg, Inc.	22062 155MM Artillery Platform Projective Fallback Sensor Kevin Boland CCDC Armament Center, U.S. Army Futures Command	Development of High Reliability DPICM Replacement Kevin Cochran NSWC IHEOOTD Fuze and Initiation Systems Branch	Hypersonics Presentation Kevin Bowcutt Senior Technical Fellow and Chief Scientist of Hypersonics, Boeing
				Hypersonics presentation

	Small Arms Track: Session 4	GARM Track: Session 2	GARM Track: Session 3	UEA Track: Session 2
	Room A, Distribution A	Room F, Distribution D	Room CD, Distribution A	Room BE, Distribution D
8:40 am	<p>21752</p> <p>Observations and Opportunities in Small Caliber Dispersion</p> <p>Jeff Siewert Arrow Tech Associates Inc.</p>	<p>21880</p> <p>Armaments Health Monitoring for Autonomous Systems</p> <p>Anthony Cannone CCDC Armaments Center. U.S. Army Futures Command</p>	<p>Low-Blast High-Impulse Densified Propellant for Recoilless Gun, Rocket, Missile Systems</p> <p>Matthew Sanford Naval Surface Warfare Center Indian Head Explosives Ordnance Disposal Technology Division</p>	<p style="color: #f4a400;">Technology and Systems Session</p> <p>Alan Kull UEA Committee Chair, NDIA Armaments Division <i>Moderator</i></p> <p>CAPT John Lowry, USN Program Manager, Conventional Prompt Strike Strategic Systems Programs</p> <p>David Lambert Chief Scientist, Munitions Directorate, Air Force Research Laboratory</p> <p>Arthur Mabbet Director, Advanced High-Speed Weapons, Raytheon Missile Systems</p> <p>John Wilcox VP, Advanced Programs & Technology, Northrop Grumman Innovation Systems</p> <p>Kevin Bowcutt Senior Technical Fellow and Chief Scientist of Hypersonics, Boeing</p>
9:00 am	<p>Reduced Range Ammunition Panel</p> <p>Maverick Powell USMC PM Ammo <i>Moderator</i></p> <p>Ray Chaplin</p>	<p>21849</p> <p>Technical Challenges Associated with Large Caliber Extended Range Missions: Gun Mounts</p> <p>Samuel Jacobs CCDC Armaments Center. U.S. Army Futures Command</p>	<p>USN Quad City Rock Island Arsenal Cartridge Case Capability</p> <p>Mike Hagn</p>	
9:20 am	<p>Kyle Kampo Combat Capabilities Development Center Armaments Center, U.S. Army Futures Command</p> <p>Evan Poole US Crane</p> <p>Pierre Lemay GD-OTS Canada</p>	<p>21759</p> <p>Burst Test of Composite Mortar Tube Section: Modeling and Experimentation</p> <p>Andrew Littlefield RDECOM, CCDC Armaments Center. U.S. Army Futures Command</p>	<p>USN Indianhead Trident Plant Revitalization Propulsion Capability/Technology</p> <p>Wayne Thomas</p>	
9:40 am	<p>Kim Helge Dahl Nammo Talley Inc</p> <p>Marcelo Moreno Companhia Brasileira de Cartuchos (CBC)</p>	<p>21813</p> <p>Fuze and Precision Armaments Test Capabilities and Facilities</p> <p>Pamela Ferlazzo Combat Capabilities Development Center Armaments Center, U.S. Army Futures Command</p>	<p>Fire Suppression Round</p> <p>Joshua Keena Assistant Professor Automotive/Weapons Thread Leader, U.S. Military Academy at West Point</p>	
10 am	NETWORKING BREAK			

	Small Arms Track: Session 4	GARM Track: Session 2	GARM Track: Session 3	UEA Track: Session 2
	Room A, Distribution A	Room F, Distribution D	Room CD, Distribution A	Room BE, Distribution D
10:30 am	<p style="text-align: center;">21864</p> <p style="text-align: center;">Ammunition Production Equipment Diagnosis</p> <p style="text-align: center;">Katelyn Riha Northrop Grumman Innovation Systems</p> <p style="text-align: center;">William Pendexter CCDC, U.S. Army Futures Command GD-OTS Canada</p>	<p style="text-align: center;">21833</p> <p style="text-align: center;">Laser-Based Inspection of Weapon Bores and Chambers</p> <p style="text-align: center;">James Doyle Laser Techniques Company</p>	<p style="text-align: center;">Muzzle Obstruction and Obstacle Sensor Enhancement (MOOSE)</p> <p style="text-align: center;">Joshua Keena Assistant Professor Automotive/Weapons Thread Leader, U.S. Military Academy at West Point</p>	<p style="text-align: center;">Emerging Technology Systems Panel</p> <p style="text-align: center;">Alan Kull UEA Committee Chair, NDIA Armaments Division Moderator</p> <p style="text-align: center;">David Lambert Chief Scientist, Munitions Directorate, AFRL</p> <p style="text-align: center;">Craig Robin</p> <p style="text-align: center;">Mike George Acting Director of Technology, Strategic Technology Investment Office</p> <p style="text-align: center;">Dr. Don Shiffler AFATL Kirtland</p>
10:50	<p style="text-align: center;">21905</p> <p style="text-align: center;">Quantifying Bullet Performance against Transparent Barriers</p> <p style="text-align: center;">Martin Viligiardi QuinteQ</p>	<p style="text-align: center;">22153</p> <p style="text-align: center;">Interplay of Finite Element Modeling and Experiments in a Weapons Development Project</p> <p style="text-align: center;">John Yagla Bowhead Technical Services</p>	<p style="text-align: center;">22063</p> <p style="text-align: center;">20mm Mechanically Fuzed High Explosive Projectile</p> <p style="text-align: center;">Trevor Coop General Dynamics</p>	
11:10 am	<p style="text-align: center;">Marksmanship Dispersion, Statistical Approach to Dispersion and Recoil</p> <p style="text-align: center;">Shawn Spickert-Fulton Combat Capabilities Development Center Armaments Center, U.S. Army Futures Command</p>	<p style="text-align: center;">22001</p> <p style="text-align: center;">Simplified Instrumentation for Radiometrically Accurate Flash Movements</p> <p style="text-align: center;">David Dye NSWC Crane</p>	<p style="text-align: center;">22068</p> <p style="text-align: center;">Advanced Shoulder Fired Weapon and Ammunition System</p> <p style="text-align: center;">Dr. David Grymonpré Energetics</p>	
11:40	<p style="text-align: center;">Wrap Up</p> <p style="text-align: center;">Brian Berger NDIA Small Arms Committee Chair</p>	<p style="text-align: center;">21785</p> <p style="text-align: center;">Next Generation Carbine Technologies</p> <p style="text-align: center;">Thomas Grego CCDC Armaments Center, U.S. Army Futures Command</p>	<p style="text-align: center;">22047</p> <p style="text-align: center;">Comprehensive Advanced Artillery Solutions</p> <p style="text-align: center;">Danny Schirding Elbit Systems Land</p>	<p style="text-align: center;">Wrap Up and Vision Forward</p> <p style="text-align: center;">Alan Kull UEA Committee Chair, NDIA Armaments Division</p>
12 pm	<p>CONFERENCE ADJOURNS – PROCEED TO TECHNOLOGY FIRING DEMONSTRATION</p>			

TECHNOLOGY FIRING DEMONSTRATION

12:00 – 12:20 pm	BOX LUNCH PICKUP
12:30 pm	BUSES HARD DEPART FOR FIRING DEMONSTRATION
1:30 – 2:00 pm	ARRIVE AT DEMO SITE, SAFETY BRIEFING
2:00 – 2:30 pm	DEMONSTRATING COMPANIES BRIEF TECHNOLOGY INITIATIVES AND FEATURES
2:30 – 3:00 pm	FIRING DEMONSTRATIONS
3:00 – 3:50 pm	ATTENDEE FIRING PARTICIPATION
4:00 pm	BUSES DEPART

POSTER SESSION SUMMARIES

Barone, E. BOARD 01
ARDEC

M14 Short Stroke – Analysis of Ammunition and Weapon System Influencing Factors.

Boland, K.R. BOARD 02
CCDC Armament Center

155MM Artillery Platform Projectile Fallback Sensor.

Bourque, G BOARD 03
General Dynamics - OTS Canada

Improved Ballistic Match and Accuracy for .50 Caliber Reduced Range Ammunition (RRA).

Buenfil, J.R. BOARD 04
ARDEC

Reference Architecture for Deep Learning Based Security Systems with Computer Vision and Human in the Loop.

Caprara, R. BOARD 05
NSWC Crane

Kinetic Defeat Modeling and Optimization for Counter-UAS Applications

Cataldi, M.C. BOARD 06
ARDEC

Using Physics Based Explicit FEA Codes to Model and Simulate Ballistic Impact Events.

Chaplin, R. BOARD 07
ARDEC

Effects of Rifling Twist Rate and Geometry on Bullet Engraving During Launch.

Doyle, J.L. BOARD 08
Laser Techniques Company

Laser-based Inspection of Weapon Bores and Chambers to Improve Manufacturing Quality, Optimize Performance and Sustain Operational Readiness.

Gmyrek, T. BOARD 09

Systematic Effects of Cartridge and Weapon Barrel Variation.

Grego, T.C. BOARD 10
ARDEC

Next Generation Carbine Technologies Advanced Barrel Characterization.

Grego, T.C. BOARD 11
ARDEC

Next Generation Carbine Technologies Signature and Recoil Reduction.

Grego, T.C. BOARD 12
ARDEC

Next Generation Carbine Technologies.

Hohnecker, K. BOARD 13
ARDEC
MATLAB Script to Convert Tetrahedrals to Hexahedrals with Near-Optimal Element Quality.

Hynes, D.D. BOARD 14
USD(I)
Acquisition-Intelligence.

Hynes, D.D. BOARD 15
USD(I)
Intelligence as Value Added.

Kampo, K. BOARD 16
ARDEC
Design and Implementation of Reduced Range Training Ammunition.

Kent, H.D. BOARD 17
Armor Development Group LLC
Gun Camera Small Arms Applications of The Soldier Worn Network.

Kent, H.D. BOARD 18
Armor Development Group LLC
Beating the Heat: Tungsten Ablation Coatings for Firearms.

Kent, H.D. BOARD 19
Armor Development Group LLC
How the World Record Sniper Hit Was Made; Meet Charlie TARAC.

Kent, H.D. BOARD 20
Armor Development Group LLC
Three Months from Poster to Product; The Frangible AP Story.

Kent, H.D. BOARD 21
Armor Development Group LLC
Programmable Dispersion of for Ammunition Production; Using External Ammunition Sealant to Produce Identical or Varying Dispersion on the Production Line.

Kent, H.D. BOARD 22
Armor Development Group LLC
Commercial Lightweight Firearms Survey: What's New from the Wide World of the Commercial Firearms Industry.

Kent, H.D. BOARD 23
Armor Development Group LLC
Advantages of 21st Century Materials & Manufacturing Processes on Small Caliber Ammunition.

Kent, H.D. BOARD 24
Armor Development Group LLC
On- & Off-Cloud Inventory, Training & Qualification Solutions for Government Weapons: Who Knows What About What, What's Condition and Where Everything is for Fleet Management.

McFarland, G.J. BOARD 25
ARDEC
ARDEC Terminal Performance Model - An Unclassified Damage Model for use by Industry.

Meierhofer, D.J. BOARD 26
Northrop Grumman Innovation Systems
Influencing Factors in Dropped and Leaking Primers.

Morrison, R. BOARD 27
Aero Precision Corp
The Great Pacific N-W Silencer Study: How an Aerospace Manufacturer Approaches Sound Suppressor Design.

Poirier, C.M. BOARD 28
STAC-Tactical
Exploring Cold Weather Performance of Traditional Asphaltic vs. External Ammunition Sealants.

Poret, J. BOARD 29
RDECOM-ARDEC
A Multi-Sensor System for Measuring the Irradiance and Velocity of Live-Fired Red-Light-Emitting Pyrotechnic Tracers.

Serino, R.M. BOARD 30
Applied Research Associates, Inc.
Art-of-the-Possible: Low-Cost COTS-Based VTOL-UAS for Stealthy Take-Downs.

Siewert, J. BOARD 31
Arrow Tech Assoc. Inc
What Gun Gurus Need to Know About Case-Chamber Interaction.

Tang, C.Z.M. BOARD 32
Advanced Material Engineering
STINGER, a Multi-Rotor Gunship.

Tashjian, N.A. BOARD 33
ARDEC
Predictive Modeling in Small Arms Testing.

Woolsey, R. BOARD 34
Northrop Grumman
Case Rupture.

Weisel, C. BOARD 35
VIS LLC
Pulsed Power Developments for Directed Energy Systems: The Essential Support Element for Rail Guns, Lasers and EM Weapons.

Yagla, J. BOARD 36
Bowhead Technical Services
Interplay of Finite Element Modeling and Experiments in a Weapon Development Project.