

41st Annual Armament Systems:

Gun and Missile Systems Conference & Exhibition

"Enhancing Our Capability and Evolving for Tomorrow"

On-Site Conference Agenda



Event # 6590

March 27 - 30, 2006

**Sacramento Convention Center
Sacramento, CA**





CONFERENCE DESCRIPTION

The 41st Annual Armament Systems: Gun and Missile Systems Conference will address the theme: **“Enhancing Our Capability and Evolving for Tomorrow”** and will present topics that demonstrate how our current gun, munition and missile system technologies can be adapted and evolved to meet tomorrow’s missions and operations.

This conference will address current and evolving mission requirements for tactical weapons and the development of technology and weapons systems to meet the need for future battlefields. Air, ground, sea-launched and autonomous operating applications are included with specific interest in how new developments or systems will support requirements anticipated for the next generation of weapon systems. Discussions of current capabilities evolving into spin-out developments for new systems, program status and issues, and weapon system integration into new platforms are encouraged. Representatives of the US and international defense communities, including both government and industry members are invited to participate.

“The Department of Defense finds that this event meets the minimum regulatory standards for attendance by DoD employees. This finding does not constitute a blanket approval or endorsement for attendance. Individual DoD component commands or organizations are responsible for approving attendance of its employees.”

CONFERENCE AGENDA

Monday, March 27, 2006

10:00 am On-site Registration and Exhibitor Move-In - **West Lobby, First Floor**

5:00 pm -
6:30 pm Networking Reception in Exhibit Hall - **Exhibit Hall E**

Tuesday, March 28, 2006

7:00 am On-site Registration & Continental Breakfast - **West Lobby, First Floor**

GENERAL SESSION - Meeting Room 202-204, Second Floor

8:00 am Welcome and Introductory Comments
- **Mr. Samuel Campagna**, Director, Operations, NDIA

8:05 am Conference Overview & Comments
- **Mr. Robert Glantz**, Chairman, Gun & Missiles Committee,
ATK, Ordnance and Ground Systems
- **Mr. Steven French**, Conference Chair, BAE Systems,
Armament Systems Division

8:15 am Keynote Speaker
- **COL Mark Rider, USA**, Project Manager Maneuver
Ammunition Systems

9:15 am Armament Division Overview
- **Mr. Dave Broden**, Chairman, NDIA Armaments Division

9:30 am Exhibit Hall Opens/ AM Break - **Exhibit Hall E**

General Session - Meeting Rooms 202-204, Second Floor

Guns & Missiles

Advanced Weapons and Design Session

- Session Chairs: **Mr. Dave Wallestad**, BAE Systems
Mr. Rick Hasenbein, Benet Labs/ARDEC

10:00 am Future AC-130 Gunship Integrated Weapons Systems
- **Mr. Bill Elliot**, NSWC Dahlgren

10:20 am Deep Digger Weapon System Developments
- **Mr. David Burns**, ARDEC

10:40 am 120mm Mortar Feasibility
- **Mr. Vincent Vendetti**, NSWC Dahlgren

11:00 am Development and Testing of HE Projectiles for EM Guns
- **Mr. David Okken**, ARDEC

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- 11:20 am Advantages of Dual Recoil Configuration
- **Mr. William Zepp**, ARDEC
- 11:40 am Anti-Personnel Obstacle Breaching System - (APOBS)
- **Mr. Perry Villanueva**, ARDEC
- 12:00 pm Lunch - **Exhibit Hall D/E**
- General Session - Meeting Rooms 202 - 204, Second Floor
Advanced Weapons and Design Session (continued)**
- 1:30 pm Modular Approach to Weapons Integration
- **Mr. Michael Canaday**, NSWC Dahlgren
- 1:50 pm Advantages of the Variable Volume Chamber Cannon in
Tuning Ballistic Performance
- **Mr. Bruce Zierwick**, BAE Systems
- 2:10 pm Advanced Modular Gun
- **Mr. Steve Coladonato**, Applied Ordnance Technology
- Large Caliber Guns/Non-Lethals Session**
- Session Chairs: **Mr. Clifton Toombs**, NAVAIR-WD,
China Lake
Mr. Scott Martin, Raytheon
- 2:30 pm An Enhanced 105mm Artillery System - Not Your Father's 105
- **Mr. Michael Peck**, General Dynamics Land Systems
- 2:50 pm Modular Design of Naval Gun Systems - Lessons Learned
- **Mr. Andrew Bradick**, Lockheed Martin
- 3:10 pm 120mm XM360 Gun for Future Combat System
- **Mr. David Smith**, Benet Labs/ARDEC
- 3:30 pm PM Break - **Exhibit Hall E**
- General Session - Meeting Rooms 202 - 204, Second Floor**
- 4:00 pm 155mm XM1063 Non-Lethal Personnel Suppression Projectile
- **Ms. Jennifer McCormick**, GDOTS
- 4:20 pm Non-Lethal Blunt Trauma Grenade Performance Improvement
- **Mr. Ryan Olsen**, ARDEC
- 4:40 pm Low Collateral Damage 105mm Artillery Shell
- **Lt Carly Northam**, USAF, AFRL
- 5:30 - 7:00 pm Networking Reception - **Exhibit Hall E**

CONFERENCE AGENDA

Wednesday, March 29, 2006

7:00 am On-site Registration & Continental Breakfast - **West Lobby, First Floor**

8:00 am **General Session - Meeting Rooms 202-204, Second Floor**
Keynote Speaker
- **Mr. Peter DeMasi**

**Guns and Missiles
Modeling and Simulation Session**
- Session Chairs: **Mr. Mike Till**, NSWC Dahlgren
Mr. Jeff Siewert, Arrow Tech

8:30 am A Target Tracking Algorithm That Reduces Designation Time for Targeting
- **Mr. Bryan Freeman**, NSWC Dahlgren

8:50 am Blast Overpressure Measurement for CFD Model Validation in the Development of Large Caliber Gun Systems
- **Mr. Peter Silver**, Aberdeen Test Center

9:10 am Evaluation of the Generalized Explicit Guidance Law Applied to Ballistic Trajectory Extended Range Munition
- **Mr. Kishore Pamadi**, NSWC Dahlgren

9:30 am Exhibit Hall Opens/AM Break - **Exhibit Hall E**

10:00 am **General Session - Meeting Rooms 202-204, Second Floor**
Gun Weapon System Safe Separation: A Standardized Approach
- **Mr. Sanford (Luke) Steelman**, NSWC Dahlgren

10:20 am Evaluation of the System Effectiveness of Guided Projectiles
- **Mr. Jeff Siewert**, Arrow Tech

10:40 am Joint Gun Effectiveness Model (JGEM)
- **Ms. Barbara Harris**, NSWC Dahlgren
- **Mr. Morris Walker**, NSWC Dahlgren

Weapon System Testing Session
- Session Chair: **Mr. Brian Tasson**, ATK

11:00 am Extended Range Guided Munition (ERGM) Interface Testing
- **Mr. George Wiles**, NSWC Dahlgren

11:20 am Analysis of the Effectiveness of Thermal Shroud on the Thermal Deformation of a Gun Barrel
- **Mr. Tae-Ho Han**, Agency for Defense Development, Korea

11:40 am Exhibit Visit/Lunch - **Exhibit Hall D/E**

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1:30 pm General Session - Meeting Rooms 202-204, Second Floor
Robert Trifiletti Award and Military Operations Award Presentation

The Robert Trifiletti Award

The Trifiletti Award recognizes and honors an individual who has made a significant contribution benefiting the war-fighter, and thus strengthening National Defense. This contribution can be in the areas of technology, systems, systems integration or to someone who through his work has provided unique leadership resulting in changes and progress in the community.

The Robert Trifiletti Award is presented to: **Mr. Michael D. Golden**

The Military Operations Award

The Military Operations Award is presented to recognize an individual, crew, or unit who in the opinion of the NDIA Gun and Missiles Executive Committee has made significant contributions in operational employment, tactics or combat applications of Guns and Ammunition and/or Rockets and Missiles which have impacted the readiness, capabilities, or results of US Military activity. A significant contribution is considered to be superior performance of duties in an operational environment, development of tactics, training or leadership.

The Military Operations Award is presented to: **LTC Karl W. Borjes, USA**

1:45 pm **Weapon System Testing Session (cont.)**
Analysis of X-Ray Computed Tomography Data Using Image Processing
- **Mr. Michael Lowery**, University of California, Santa Cruz

2:05 pm Introduction to the Standardized MOUT Target and Testing Board
- **Mr. Tim Farrand**, ARL

Rockets and Missiles System Developments Session

- Session Chairs: **Mr. Edwin DePasqual**, Chairman, NDIA Missiles and Rockets Committee

2:25 pm Subsurface Launcher for Joint Services Payloads
- **Dr. Jon Yagla**, NSWC Dahlgren

2:50 pm Potential 2.75 Inch Rocket System Applications for the Future
- **Mr. Don Davis**, AMRDEC

3:10 pm Improved IM Response for Future 2.75" Rockets Utilizing Composite Case Technology
- **Mr. Michael Kessinger**, ATK Radford

3:30 pm PM Break - **Exhibit Hall E**

CONFERENCE AGENDA

- 4:00 pm **General Session - Meeting Rooms 202-204, Second Floor**
CKEMSim Integrated Flight Simulation
- **Mr. Howard McCrum**, Lockheed Martin Missiles and Fire Control
- 4:20 pm The Future is Now - Kinetic Energy Missiles/Net Centric Fire Control Systems
- **Mr. John Palmer**, Lockheed Martin Missiles and Fire Control
- 5:00 pm Integrated Engineering Approach and Results Used in the Aegis BMD SM-3 Solid Divert Attitude Control System
- **Mr. John Beck**, NSWC Dahlgren
- 5:20 pm Adjourn for the Day

Thursday, March 30, 2006

- 7:00 am On-site Registration & Continental Breakfast - **West Lobby, First Floor**
- 8:00 am **General Session - Meeting Rooms 202-204, Second Floor**
Keynote Speaker
- **LTC Karl Borjes, USA**, Assistant Product Manager, Large Caliber Munitions, Maneuver Ammunition Systems
- Guns and Missiles**
Medium Caliber Guns and Ammunition Session
- Session Chairs: **Mr. James Talley**, GDATP
Mr. Scott Martin, Raytheon
- 8:30 am F-35 Joint Strike Fighter Gun System Update
- **Mr. David Maher**, GDATP
- 8:50 am LEMUR
- **Mr. Hans Kindroth**, BAE Systems, Bofors AB
- 9:10 am XM-307 Advanced Crew Served Weapon Increased Lethality Capability for the Stryker Vehicle
- **Mr. Jeffrey Ladner**, GDATP
- **Mr. James LeGue**, GDLS
- Close In Weapon System Dented Brass Modeling
- **Mr. John Fletcher**, GDATP
- 9:30 am Exhibit Hall Opens/AM Break in Exhibit Hall
- 10:00 am **General Session - Meeting Rooms 202-204, Second Floor**
Close In Weapon System Dented Brass Modeling
- **Mr. John Fletcher**, GDATP
- 10:20 am Baselining of the 40mm Family of Ammo
- **Mr. James Grassi**, ARDEC

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10:40 am Guidance Integrated Fuze (GIF) Technology Demonstration
- **Mr. Chad Finch**, NSWC Dahlgren
(PRESENTATION NOT AVAILABLE)

11:00 am 30X 173 High Explosive Air Burst - Trace (HEAB-T):
Capabilities for Tomorrow
- **Mr. Don Dillard**, GDOTS

11:20 am LW30 Spiral Round Development - Marking Rounds
- **Mr. Duncan Langlois**, ATK Ammunition & Energetics

11:40 am 20mm M940 MPT-SD Vs. M246 HEI-TSD Ground to Air
Performance Comparison
- **Mr. Don Dillard**, GDOTS

12:00 pm Lunch and last chance to view Exhibits

Propellants, Energetics and Warheads Session

- Session Chairs: **Mr. Matt Solverson**, GDOTS

1:30 pm Demonstration of Insensitive Common Explosives
- **Mr. Duncan Langlois**, ATK Ammunition & Energetics

1:50 pm **General Session - Meeting Rooms 202 - 204, Second Floor**
120mm Mortar Ignition Cartridge Design Improvement and
Black Powder Replacement
- **Mr. Gary Chen**, ARDEC
- **Mr. Victor Sun**, ARDEC

2:10 pm DNDA Gun Propellants
- **Dr. Dietmar Mueller**, Fraunhofer Institut Chemische
Technologie

2:30 pm M385A1 One Piece Projectile Feasibility Study
- **Mr. Christopher Summa**, ARDEC

2:50 pm Warhead Technology for EAPS Applications
- **Mr. Hans Kindroth**, BAE Systems, Bofors AB

3:10 pm Flight and Terminal Ballistic Performance Demonstration of a
Gun-Launched Medium Caliber Ramjet Propelled Air Defense
Projectile
- **Mr. Ronald Veraar**, TNO Defence, Security & Safety

4:00 pm Hybrid Propellant for 120mm Tank Training Round
- **Dr. David Grymonpre**, GDOTS

4:20 pm **General Session - Meeting Rooms 202 - 204, Second Floor**
120mm HET High Explosive IM Development
- **Mr. Jason Gaines**, GDOTS

4:40 pm Combined Paper - Advanced Nitrochemie Propellants for DoD
Applications
- **Mr. W.J. Worrel**, ATK Radford
- **Dr. Beat Vogelsanger**, Nitrochemie Wimmis AG

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ATK is a \$3.1 billion advanced weapon and space systems company employing approximately 15,000 people in 23 states. The company is the world's leading supplier of solid propulsion systems and the nation's largest manufacturer of ammunition.

ATK's core ammunition and rocket motor businesses are national franchises. Our ammunition product portfolio spans a broad range, from 5.56mm through .50 caliber rounds for handguns, shotguns, and rifles, to 20mm, 25mm, and 30mm rounds for air, land, and sea platforms, and large caliber ammunition for main battle tanks. We are developing environmentally friendly ammunition, next-generation energetic materials and advanced propellants that will increase ordnance performance and lethality.

ATK is the world leader in the design, development, and production of rocket motors for space, strategic-missile defense, and tactical applications. Our tactical rocket motor portfolio includes propulsion systems for air-to-air, air-to-surface, surface-to-air, and surface-to-surface missiles.

Building on the capabilities of our core ammunition and rocket motor businesses, ATK is developing several breakthrough advanced weapon systems, such as the US Navy's Advanced Anti-Radiation Guided Missile (AARGM) and Extended Range Munition (ERM) and the US Army's Precision Guided Mortar Munition (PGMM) and Mid-Range Munition (MRM). Using state-of-the-art guidance, navigation and control systems, targeting systems, high-energy propellants, and advanced warheads, ATK is developing weapons that will fly farther and faster and strike their targets with unprecedented precision and lethality.

ATK is also a leading producer of medium-caliber gun systems for ground, sea, and air platforms. ATK produces the Bushmaster guns used on Bradley Fighting Vehicles, the MK 44 30/40mm automatic cannon for the U.S. Marine Corps' new Expeditionary Fighting Vehicle and the 30mm M230 automatic cannon, part of the weapon system on the AH-64 Apache and AH-64D Apache Longbow helicopters.



**Thank You to our
Promotional Partner !**

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