



*“Translating Lessons Learned into
Systems Requirements”*

**40th Annual Armament Systems:
Guns - Ammunition - Rockets - Missiles
Conference & Exhibition**

April 25 - 28, 2005

Sheraton New Orleans Hotel
New Orleans, LA



Monday, April 25 2005

- 10:00 a.m. On-site Registration
- Noon Exhibit Move-In
- 5:00 p.m. - Reception in the Exhibit Hall
6:30 p.m.
- 6:30 p.m. Adjourn for the Day

Tuesday, April 26, 2005

- 7:00 a.m. On-site Registration / Continental Breakfast
- 7:45 a.m. Opening Remarks
- 8:00 a.m. *Mr. David C. Schulte*, Executive Director, Naval Ordnance Safety & Security Activity
- 8:30 a.m. *Dr. James C. Bradas*, Associate Director for Missile Technology, AMRDEC
- 9:00 a.m. **Session: Modeling & Simulation**
- Accuracy Modeling of the 120mm M256 Gun as a Function of Bore Centerline Profile
Mr. David Smith for Dr. Ronald G. Gast, Benet Laboratories
- Opening New DOORS to Managing JSF Gun System Requirements
Ms. Renee I. Bellack, General Dynamics Armament and Technical Products
- Optimized Trajectory Shaping Guidance for an Air-to-Ground Missile Launched from a Gunship
Mr. Shane Sorenson, Naval Surface Warfare Center
- 9:30 a.m. Exhibit Hall Opens
- 10:00 a.m. Break in the Exhibit Hall
- 10:30 a.m. Conceptual Weapon System Design for the Defense of Naval Vessels from the Swarming Small Boat Threat
Mr. John E. Bibel, Naval Surface Warfare Center Dahlgren Division
- Warhead Penetration Dynamics - Warhead Body, Fuze, and Target Interaction
Mr. Richard Ventura, Talley Defense Systems
- Ballistic Limits of Skin and Clothing for Lethality Estimates of Projectiles Wound Ballistics
Mr. Henry E. Hudgins, US Army ARDEC
- A Review of the Recent NIMIC IM Design Technology Workshop
Mr. M. Pascal Marchandin, NATO - MSIAC
- 11:50 a.m. Luncheon: Super Weapons From a Historical and Psychological Basis
LTC Simon R. West, British Army, United Kingdom Defence Academy

1:10 p.m. **Session: Medium Caliber Systems**

Ammunition for the New Infantry Battelfield Environment
Mr. Allan N. Buckley, BTECH Oerlikon Contraves Pyrotec AG

Force Protection - Multi Mission Vehicle Armament & Air Burst Munition for Expeditionary Warfare
Mr. Andrew Bradick, Lockheed Martin

F-35 Joint Strike Fighter Gun Overview and System Update
Mr. David L. Maher and *Mr. Douglass C. Parker*, General Dynamics, Armament and Technical Products

Phalanx Targeting Investigation
Mr. Jeff A. Siewart, Arrow Tech Association

3:00 p.m. Break in the Exhibit Hall

3:30 p.m. **Session: Medium Caliber Systems (Continued)**

Mk 110 Mod 0 / 57mm Gun Test & Certification Process
LT Timothy J. Hackett, USCG, US Coast Guard

GAU-19/A Barrel Life Study
Mr. James J. St. Germain, General Dynamics Armament & Technology Products

Calibre Choice for the Dutch IFV
Mr. Eelko van Meerten, TNO Defence, Safety & Security

The Expeditionary Fighting Vehicle, How Operational and Combat Lessons Learned Apply to the EFV and the 30MM Mix of Tomorrows Warfighter
Maj Kirk D. Mullins, USMC, DRPM AAA

30x173mm HEAB-T Development and Lessons Learned
Mr. Paul A. Reynolds, General Dynamics - OTS

5:30 p.m. - Reception in the Exhibit Hall
7:00 p.m.

7:00 p.m. Adjourn for the Day

Wednesday, April 27, 2005

7:00 a.m. On-site Registration / Continental Breakfast

7:45 a.m. Opening Remarks

8:00 a.m. *BG (P) James R. Myles, USA*, Commanding General, US Army Test & Evaluation Command

8:45 a.m. *Mr. Robert Salyer*, Raytheon

9:10 a.m. Acquiring and Sustaining US Army Missiles
COL Lloyd E. McDaniels, USA, CCWS Project Office

9:30 a.m. Exhibit Hall Opens

9:45 a.m. **Session: Medium Caliber Systems (Continued)**

Recent Developments of the M230 30MM Chain Gun
Mr. Lawrence A. Mason, ATK Ordnance & Ground Systems

MK44 Automatic Cannon Update
Mr. Mark McMillian, ATK Ordnance Systems

10:30 a.m. Break in the Exhibit Hall

Concurrent Sessions

10:50 a.m. **Session: Weapon Systems**

AC-130U Gun System Production Re-Start
Mr. John G. Fletcher, General Dynamics Armament and Technical Products

Weapon System Concepts for a Future Gunship
Mr. Michael M. Canaday, Naval Surface Warfare Center

Royal Navy Small Calibre Gun Research to Defeat the Small Boat Threat
Mr. Johnathan Watkins, Defence Scientific Technology Laboratory

11:50 a.m. - Lunch

1:00 p.m. **Session: Weapon Systems (Continued)**

Remote Operated Small Arms Mount (ROSAM)
Mr. Benjamin J. Hardie, General Dynamics Armament and Technical Products

Placing Gunner's Behind the Protective Armor of Vehicles
LTC Kevin P. Stoddard, USA, PM Soldier Weapons

Picatinny High Speed Turret (PHIST)
Mr. Richard Ciekurs, US Army RDECOM-ARDEC

Session: Missiles & Rockets

Critical Asset Defense - ABRAHAM Rocket Assisted Projectile
Mr. Robert Daunfeldt, Bofors Defence

Hypervelocity Propulsion System Substantially Improves 2.75 Rocket Lethality, Safety, Survivability
Mr. Larry Bradford, CAT Flight Services, Inc.

APKWS Flight Test Results
Mr. Larry S. Ingram, General Dynamics Armament and Technical Products

APKWS Block II Demonstration Program
Mr. Milton E. (Gene) Henderson, Jr., US Army RDECOM-AMRDEC

Lunch

Session: Missiles & Rockets (Continued)

Missile System Lethality Enhancement Through the Use of Pulsed Power and Plasma Conduction
Mr. Allen H. Stults, US Army RDECOM

Next Generation Adaptable RF Seekers for Precision Munitions
Dr. Cory Myers, BAE Systems

The Smart Rocket Launcher as the Key Enabler for the Rocket System of the Future: The Technology Developments Needed for the Next Generation Rocket Launcher to Carry 70mm Rockets into the 21st Century
Mr. Donald E. Davis, US Army Research, Development & Engineering Command

Session: Weapon Systems (Continued)

Recent Activities Involving 40mm CTWS in Support of UK and France

Mr. Michael Duckworth, CTA International

The Marine Corps Expeditionary Fire Support System (EFSS): A Systems Overview

Mr. Jason Burkett, General Dynamics

2:40 p.m. Break in the Exhibit Hall

(Last Opportunity to Visit Exhibits)

3:00 p.m. Exhibit Hall Closed

3:10 p.m. **Session: Large Caliber**

Development of the XM1028, 120mm Anti-Personnel Tank Round

Mr. Hugh MacMillan, Armaments Engineering and Technology Center, **Mr. Peter Georgantzis**, US Army ARDEC, and **Mr. Neal Hylton**, General Dynamics-OTS

Titanium Investment Casting Weapon System Application

Mr. Jeff Lehner, Director, Military Programs, Alcoa/Howmet Corporation

Advanced Modular Gun Demonstrator - XLT Test Gun

Mr. Steve Coladonato, Applied Ordnance Technology, Inc.

The Modified Ammunition, Equipped with the "Fuzaman": The IMI 105-mm Heat-AP-t Cartridge M152/6

Mr. Danny Schirding, Israel Military Industries, Ltd

105/120/125 mm PELE Firing Results
Dr. Lutz Borngen, Rheinmetall Waffe Munition

Lightweight Gun Development and Testing for the Future Combat System

Mr. David C. Smith, P.E., USA Benet Laboratories

5:15 p.m. Adjourn for the Day

Session: Missiles & Rockets (Continued)

Development of a Unique Penetrator Warhead for Rocket or Missile Delivery

Mr. Roger W. Melin, Lockheed Martin Missiles and Fire Control

Determining the Army Aviation Rocket and Missile Mix for the Future Fight

Mr. William M. Mulholland, Whitney, Bradley & Brown

Break in the Exhibit Hall

(Last Opportunity to Visit Exhibits)

Exhibit Hall Closed

Session: Energetics

Advanced Propelling Solutions Complying with Demands (FCS)

Dr. Beat Vogelsanger, NITROCHEMIE Wimmis AG

Development, Evaluation and Lifetime Prediction of Medium and Large Caliber Ammunition

Mr. Gert Scholtes, TNO

Concepts and Practice in the Application of Lessons Learned

Mr. David F. Fair, US Army ARDEC

Propellant Replacement for the 105-mm Artillery Propelling Charge

Ms. Adriana L. Eng, US Army ARDEC

Environmentally Benign Substitute Compounds for Lead Azide

Mr. John M. Hirlinger, US Army RDECOM-ARDEC

Modeling Efforts in Support of PKERS Concept Development

Mr. David C. Rutledge, Ph.D., Staff Engineer, United Defense

Adjourn for the Day

Thursday, April 28, 2005

- 7:00 a.m. On-site Registration / Continental Breakfast
- 7:45 a.m. Opening Remarks
- 8:00 a.m. **COL Mark Rider, USA**, Project Manager, Maneuver Ammunition Systems
- 8:30 a.m. **Mr. Anthony Sebasto**, Associate Director for Technology & Business Development, AETC
- 9:00 a.m. **Mr. Dave Broden**, NDIA Armaments Division Status Overview, Chairman, Armaments Division, NDIA
- 9:20 a.m. Break

Concurrent Sessions

9:40 a.m. **Session: Technology & Manufacture**

Automated Ammunition Identification
Mr. David F. Pouliot, United Defense L. P.

Deep Digger Weapons System Concept
Mr. David W. Burns, US Army ARDEC

Development of Composite Launch Tubes for
Shoulder Fired Weapons through Applied
Science, Planning and Teamwork
Mr. Thomas P. Jacobson, Talley Defense
Systems

Design for Manufacture & Assembly (DFMA)
Mr. Steve Watts, US Army RD&E Command

Technology and Manufacturing Initiatives
Mr. Dave Burkhardt, Enterprise Management
Office, US Army ARDEC

**Session: Technology & Manufacture
(Continued)**

Army MEMS Common Guidance Program
Mr. David W. Panhorst, US Army ARDEC
and **Dr. Vicki C. LeFevre**, AMRDEC

Development and Testing of HE Projectiles for
EM Gun - STO
Mr. Manfredi Luciano, US Army ARDEC

Session: Mortars & Artillery

Tank 120mm Training Ammunition: MB65 Target
Impact Dispersion Study
Mr. Jason W. Gaines, General Dynamics-
OTS

Lessons Learned from the Development of the U.S.
Navy 5-inch Ship Self Defense Projectiles
Mr. Sanford L. Steelman, III, Naval Surface
Warfare Center

ONR's Advanced Gun Barrel Technology Program
Mr. Allen Boutz, United Defense

Structural Margin Improvement on the M829A3
Projectile
Mr. Scott Carney, ATK

Session: Mortars & Artillery

Excalibur: Turning the Field Artillery into a Long
Range Precision Attack Weapon System
Mr. Stefan Blomgren, Bofors Defence

Low Cost Course Correction (LCCC)
Demonstration Program
Mr. George B. Barnych, General Dynamics
Ordnance and Tactical Systems Division

**Session: Technology & Manufacture
(Continued)**

Advanced Metal Injection Molding Technology
Applications to Defense Industry
Mr. Jerry LaSalle, Polymar Technologies

11:40 a.m. Lunch

1:00 p.m. **Session: Technology & Manufacture
(Continued)**

TBX Evaluation Testing in the M151 (2.75")
Warhead as Risk Reduction for the APKWS
Mr. Jason C. Gilliam, US Army RDECOM-
AMRDEC

Advanced Precision Kill Weapon System
Mr. Ulf Einfeldt, Bofors Defence

Test Results of an Imaging LADAR Seeker for
Small Missiles
Mrs. Sarah J. Hard, RDECOM-AMRDEC

3:00 p.m. **Conference Adjourns**

**Session: Mortars & Artillery
(Continued)**

Applying Six Sigma Principles to Implementation
of the PGMM Training Concept
Mr. Anthony Pezzano, OPM Mortars

Lunch

Session: Mortars & Artillery (Continued)

Precision Guided Miniature Munitions
Mr. Mark Carlson, BAE Systems

Development of a Non-Lethal Mortar Delivery
System
Mr. Seungeuk Han, US Army RDECOM-
ARDEC and *Mr. Andrew Ponikowski*, US
Army, RDECOM-ARDEC

Explosive Waste Recycle and Disposal
Mr. Mark M. Zaugg, EBV Explosives
Environmental Company