

TUESDAY, JULY 29, 2014

- 1:00pm - 7:00pm **REGISTRATION OPEN — GRAND BALLROOM FOYER**
- 2:00pm - 4:00pm **DISPLAY SET-UP — GRAND BALLROOM FOYER**
- 5:00pm - 7:00pm **OPENING/NETWORKING RECEPTION IN GRAND BALLROOM SALON 4**

WEDNESDAY, JULY 30, 2014 **Please, No Cell Phones or Electronic Recording Devices During Sessions**

- 7:00am - 7:00pm **REGISTRATION OPEN — GRAND BALLROOM FOYER**

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- 7:00am - 8:00am **CONTINENTAL BREAKFAST IN DISPLAY AREA**

SESSION I - WELCOME, ADMINISTRATIVE, & KEYNOTE ADDRESS

- 8:00am - 8:05am **WELCOME & ADMINISTRATIVE ANNOUNCEMENTS**
- ▶ Mr. Don Shutt, *ATK Missile Products Division; Chairman, NDIA Fuze Steering Committee*
- 8:05 am - 8:10am **NDIA WELCOME**
- 8:05am - 8:40am ▶ MG Barry Bates, USA (Ret), *Vice President, Operations, NDIA*
- KEYNOTE ADDRESS**
- ▶ Mr. Jim Shields, *Deputy PEO Ammunition*

SESSION II - U.S. GOVERNMENT SCIENCE, TECHNOLOGY AND ACQUISITION OVERVIEW

Session Chairs: Mr. Eric Roach, *Lockheed Martin Missiles & Fire Control* & Mr. Nassir Alaboud

- 8:40am - 9:10am **ARMY S&T AND ACQUISITION STRATEGY**
- ▶ Mr. Thomas Crowley, *US Army ARDEC* and Mr. Gene Henderson, *US Army AMRDEC*
- 9:10am - 9:40am **NAVY S&T AND ACQUISITION STRATEGY**
- ▶ Mr. Bruce Hornberger, *NAWC China Lake*
- 9:40am - 10:00am **MORNING BREAK IN DISPLAY AREA**
- 10:00am - 10:30am **AIR FORCE S&T AND ACQUISITION STRATEGY**
- ▶ Mr. Tim Tobik, *AFRL, Chief Fuze Branch*
- 10:30am - 11:00am **OSD PERSPECTIVE/FUZE IPT**
- ▶ Mr. Charles Kelly, *OUSD (AT&L) Land Warfare and Munitions*

11:00am - 11:30am **JOINT FUZE TECHNOLOGY PROGRAM (JFTP)**

▶ Mr. Lawrence Fan, *NSWC - Indian Head*

11:30 am - 12:00 pm **AWARD CEREMONY**

12:00 pm - 1:00 pm **LUNCH - GRAND BALLROOM SALONS 5-8**

Thank You to Our Sponsor



1:00pm - 5:20pm **OPEN CONCURRENT SESSION IIIA — JUNIOR BALLROOM SALONS A-D**

Please refer to the following pages for the open session schedule

1:00pm - 5:20pm **CLOSED CONCURRENT SESSION IIIB — JUNIOR BALLROOM SALONS E-H**

Please refer to the following pages for the closed session schedule

3:00pm - 3:20pm **AFTERNOON BREAK IN DISPLAY AREA**

5:30pm - 7:00pm **CONFERENCE GRAND RECEPTION IN GRAND BALLROOM SALON 4**

Thank You to Our Sponsor



THURSDAY, JULY 31, 2014 **Please, No Cell Phones or Electronic Recording Devices During Sessions**

7:00am - 5:20pm **REGISTRATION OPEN — GRAND BALLROOM FOYER**

7:00am - 8:00am **CONTINENTAL BREAKFAST IN DISPLAY AREA**

8:00am - 12:00pm **OPEN CONCURRENT SESSION IVA — JUNIOR BALLROOM SALONS A-D**

Please refer to the following pages for the open session schedule

8:00am - 12:00pm **CLOSED CONCURRENT SESSION IVB — JUNIOR BALLROOM SALONS E-H**

Please refer to the following pages for the closed session schedule

10:00am - 10:20am **MORNING BREAK IN DISPLAY AREA**

12:00pm - 1:00pm **LUNCH — GRAND BALLROOM SALONS 1-4**

1:00pm - 5:20pm **CLOSED CONCURRENT SESSION VA — JUNIOR BALLROOM SALONS A-D**

Please refer to the following pages for the open session schedule

1:00pm - 5:20pm **CLOSED CONCURRENT SESSION VB — JUNIOR BALLROOM SALONS E-H**

Please refer to the following pages for the closed session schedule

3:00pm - 3:20pm **AFTERNOON BREAK IN DISPLAY AREA**

3:20pm - 5:20pm **DISPLAY DISMANTLE**

WEDNESDAY, JULY 30, 2014

1:00PM - 3:00PM CONCURRENT SESSIONS

SESSION	CLASSIFICATION	1:00 PM	1:20 PM	1:40 PM	2:00 PM	2:20 PM	2:40 PM
SESSION IIIA JUNIOR BALLROOM A-D Session Chairs: Mr. Ed Cooper and Dr. Tom Baginski	OPEN SESSION	16673 - Micro-machined High Density Embedded Capacitor Technologies for Energy Storage Applications <i>Dr. Thomas Baginski, Auburn University</i>	16522 - Small, High Specific Energy Power Sources for Medium Caliber Fuzes <i>Mr. Harald Wich, Diehl & Eagle Picher GmbH</i>	16715 - HNS IV Powder Characterization to the Updated AOP-7 <i>Mr. Steven Fisher, Excelitas Technologies</i>	16521 - Future Electronic Fuzing for Enhanced Effects <i>Mr. Harald Wich, Diehl & Eagle Picher GmbH</i>	16689 - A Study to Reduce the Arm Time Variation in the M549A1 and M550 Escapements <i>Ms. Melissa Rhode, US Army ARDEC</i>	16582 - Nano second exposures of Ultra High Speed Framing and Simultaneous Streak Imaging of Exploding Bridge Wire (EBW) <i>Dr. Muthurajan Harries, Energetics Research Institute</i>
SESSION IIIB JUNIOR BALLROOM E-H Session Chairs: Mr. Roy Streetz and Mr. Bill Konick	CLOSED SESSION	16632 - Void Sensing Fuze (VSF) <i>Mr. Dale Spencer, Defense Threat Reduction Agency</i>	16667 - Shock Hardening Development for a Missile ESAF <i>Mr. Paul Moore, Excelitas Technologies</i>	16700 - Characterization of Potting Materials for Electronics Assemblies Subjected to Dynamic Loads <i>Dr. Vasant Joshi, NSWCEODTD</i>	16697 - High Efficiency Capacitor Charging Methods for Munition Fuzing Applications <i>Mr. James Yost, Alliant Techsystems</i>	16702 - Pulse Discharge Switch for In-Line Fuzing Systems <i>Mr. James Lucas, ATK</i>	16690 - Shock Response of Fuze Electronics During Hard Target Penetration <i>Dr. Jason Foley, AFRL Fuzes Branch</i>

3:00PM - 3:20PM AFTERNOON BREAK IN DISPLAY AREA

3:20PM - 5:20PM CONCURRENT SESSIONS

SESSION	CLASSIFICATION	3:20PM	3:40PM	4:00PM	4:20PM	4:40PM	5:00PM
SESSION IIIA JUNIOR BALLROOM A-D Session Chairs: Mr. Ed Cooper and Dr. Tom Baginski	OPEN SESSION	16665 - Safety Evaluation of Digital Post-Release Environmental Sensor Data Interface for Distributed Fuzing Systems according to SAE AS5716A <i>Mr. Stefan Ebenhoech, Fraunhofer Institute for High-Speed Dynamics EMI</i>	16765 - Stand Alone Self-Powered Sensor/ Fuze for Safety Systems Activation in an Explosive Blast Event <i>Mr. Ronald Lundgren, HA Consulting</i>	16770 - Integration of Safety, Arming & Ignition Units for Warheads/Flight Motors <i>Mr. Laurie Turner, Thales Missile Electronics</i>	16769 - UK MOD Fuzing Policy <i>Mr. John Farbrother, DOSG - UK MOD</i>	16735 - Technology of Ballistic Parameter Measurement for high Dynamic Flying Fuze <i>Mr. Yanning Gui, 212th Research Institute, China North Industries</i>	Adjourn
SESSION IIIB JUNIOR BALLROOM E-H Session Chairs: Mr. Roy Streetz and Mr. Bill Konick	CLOSED SESSION	16729 - Small Arms Grenade Munition Proximity Sensor <i>Mr. Steve Stephey, Electronics Development Corporation</i>	16737 - Proximity Sensor for 30mm Munitions <i>Mr. Patrick DeLuca, US Army ARDEC</i>	16747 - Precision HOB Sensor <i>Mr. William Elkins, Kaman Precision Products</i>	16694 - Reliability of MEMS Explosive Train Interfaces (13-G-021) <i>Mr. Daniel Pines, NWSC IHEODTD</i>	16754 - Robust Intelligent Post Impact Module (RIPIM) Development <i>Mr. Jefferson Oliver, AFRL</i>	16726 - Distributed Embedded Fuzing System <i>2d Lt Michael Secord, USAF, Air Force Research Laboratory</i>

5:30PM - 7:00PM GRAND RECEPTION IN GRAND BALLROOM SALON 4

THURSDAY, JULY 31, 2014

8:00AM - 10:00AM CONCURRENT SESSIONS

SESSION	CLASSIFICATION	8:00 AM	8:20 AM	8:40 AM	9:00 AM	9:20 AM	9:40 AM
SESSION IVA JUNIOR BALLROOM A-D Session Chairs: Mr. David Lawson and Mr. Tom Harward	OPEN SESSION	16709 - 40mm Self-Destruct Fuze <i>Mr. Aw Cheng Hok, Advanced Material Engineering</i>	16691 - Methodology for Determining Insensitive Explosive Material Compatibility <i>Mr. Jason Sweterlitsch, US ARMY ARDEC</i>	16759 - Requirements for WH Scalable Output Fuzing <i>Mr. Hans-Dieter Ackermann, TDW</i>	16725 - Fuzing in an Optimized, High Speed, Penetrating Ordinance <i>Mr. George Jolly, III, AFRL/RWMF</i>	16758 - Simplified Approach to Defeat of Buried Targets <i>Mr. Christian Euba, TDW</i>	16760 - Maturation of Next Generation Laser Proximity Fuze Technology <i>Mr. Mick Timoney, Thales Missile Electronics</i>
SESSION IVB JUNIOR BALLROOM E-H Session Chairs: Mr. Chris Janow and Mr. Marty Tanenhaus	CLOSED SESSION	16719 - Embedded Environment Characterization <i>Dr. Janet Wolfson Air Force Research Laboratory (AFRL/RWMF)</i>	16713 - Understanding the Mechanical Environment of an Embedded Fireset <i>Dr. Alain Beliveau, Air Force Research Laboratory</i>	16704 - Reliable Detonation Transfer Across Large Air Gaps <i>Mr. John Sparkman, Excelitas Technologies</i>	16688 - A Low Voltage Command-Arm System for Distributed Fuzing <i>Mr. Mark Etheridge, US Army-AMRDEC</i>	16727 - RF Range Simulator <i>Mr. John Gautz, Electronics Development Corp.</i>	16745 - Accelerated Distributed Target Simulation for Advanced Fuze Processor Development <i>Mr. Charles Overman, IV, Univ. of Florida Electronic Communications Lab</i>

10:00AM - 10:20AM MORNING BREAK IN DISPLAY AREA

10:20AM - 12:00PM CONCURRENT SESSIONS

SESSION	CLASSIFICATION	10:20AM	10:40AM	11:00AM	11:20AM	11:40AM
SESSION IVA JUNIOR BALLROOM A-D Session Chairs: Mr. David Lawson and Mr. Tom Harward	OPEN SESSION	16651 - A Successful Framework for Rapid Development, Safety and Reuse <i>Mr. Tony Ponko, Lockheed Martin</i>	16717 - Flash-PLD Related Hazards for Fuzes <i>Mr. Michael Demmick, NAVSEA</i>	16731 - New solutions for S&A and Firing Functions in Modern Fuzes <i>Mr. Max Perrin, Junghans Microtec</i>	16734 - Advantages of Analog Signal Processing over FPGA and DSP in Fuzing <i>Mr. Douglas Cox, Mixed Signal Integration Corp.</i>	TBD
SESSION IVB JUNIOR BALLROOM E-H Session Chairs: Mr. Chris Janow and Mr. Marty Tanenhaus	CLOSED SESSION	16670 - Development of a Surface Mount Triaxial Accelerometer <i>Mr. Robert Sill, PCB Piezotronics</i>	16621 - Multi-g-threshold Metal MEMS Sensor for Target Discrimination Applications <i>Mr. Michael Pica, IV, US ARMY ARDEC</i>	16695 - 40mm MEMSAD Fuze <i>Mr. John Krafcik, ATK</i>	16671 - Integrated Switch Slapper Progress <i>Mr. Bradley Hanna, NSWC Dahlgren Division</i>	16736 - Size Does Matter – Meeting Flight Termination System Challenges <i>Mr. Paul Kern, L-3 Fuzing and Ordnance Systems</i>

12:00PM - 1:00PM LUNCH — GRAND BALLROOM SALONS 5-8

THURSDAY, JULY 31, 2014

1:00PM - 3:00PM CONCURRENT SESSIONS

SESSION	CLASSIFICATION	1:00 PM	1:20 PM	1:40 PM	2:00 PM	2:20 PM	2:40 PM
SESSION VA JUNIOR BALLROOM A-D Session Chairs: Mr. Bob Hertlein and Mr. Jim Sharp	CLOSED SESSION	16744 - Affordable Manufacturing of High Energy and High Power Thermal Batteries <i>Mr. Jacob Popek, EnerSys Advanced Systems</i>	16714 - Fuze Modeling Grand Challenge: Computational Comparisons <i>Dr. Janet Wolfson, Air Force Research Laboratory</i>	16764 - Advances in Energetic Direct Write Technologies for Fuze Applications <i>Mr. Jeffrey Kraft, US Army RDECOM-ARDEC</i>	16707 - Low Cost ESAD <i>Mr. Michael Haddon, NAWCWD</i>	16663 - Modeling and Simulation of Circuit Board with COTS Resistors under High-G Loads <i>Dr. Jennifer Cordes, U.S. Army, Picatinny Arsenal</i>	16722 - Stinger Missile Target Detecting Device <i>Mr. Don Atkins, Electronics Development Corp.</i>
SESSION VB JUNIOR BALLROOM E-H Session Chairs: Mr. Ken Kelly and Mr. Bruce Hornberger	CLOSED SESSION	16699 - Army Selectable Yield Unitary Fuze <i>Mr. Don Limbaugh, US Army AMRDEC</i>	16701 - Development Collaboration for the A13 Ordnance System <i>Mr. James Lucas, ATK</i>	16703 - Fuzing for HDBT Defeat <i>Mr. Michael Johnson, ATK</i>	16743 - High Reliability DPICM Replacement <i>Mr. Kevin Cochran, NSWC-IHEODTD</i>	16687 - Shock Hardened Miniature GPS-denied INS for Smart Weapons Applications <i>Mr. Martin Tanenhaus, Tanenhaus and Associates</i>	16660 - Impact Sensitivity of Off-Axis MEMS Impact Switch in High Spin Environments <i>Mr. Michael Pica, ARDEC</i>

3:00PM - 3:20PM AFTERNOON BREAK IN DISPLAY AREA

3:20PM - 5:20PM CONCURRENT SESSIONS

SESSION	CLASSIFICATION	3:20PM	3:40PM	4:00PM	4:20PM	4:40PM
SESSION VA JUNIOR BALLROOM A-D Session Chairs: Mr. Bob Hertlein and Mr. Jim Sharp	CLOSED SESSION	16720 - Effects of Glass Transition on Structural Integrity of Gun Launched Electronics <i>Dr. Aisha Haynes, US Army ARDEC</i>	16761 - Fuze Characterization Utilizing PDV Analysis <i>Mr. Rodger Cornell, US Army RDECOM-ARDEC</i>	16732 - Experimental and Computational Methods used to Design and Validate Explosive Trains <i>Mr. Lucas Martinez, Air Force Research Lab</i>	16762 - Initiation Train Analysis via Penalty Testing <i>Mr. Erik Wrobel, US Army ARDEC</i>	16693 - MEMS Retard & Impact Sensors <i>Mr. Randy Drobny, NAWCWD</i>
SESSION VB JUNIOR BALLROOM E-H Session Chairs: Mr. Ken Kelly and Mr. Bruce Hornberger	CLOSED SESSION	16730 - Fuze-to-Booster Explosive Interface Characterizations <i>Mr. Michael Meadows, Reynolds Systems Inc.</i>	16661 - A Hybrid Solid-State High-Voltage and High Current Closing Switch for Capacitive Discharge Applications <i>Dr. Ronald Focia, Sandia National Laboratories</i>	16616 - ESAD Architecture for Hand Emplaced Ordnance <i>Mr. Michael Holder, TRD Associates, LLC</i>	16755 - Printing Fuze Components <i>Dr. Brian Fuchs, US ARMY ARDEC</i>	16746 - Kaman MEMS Fuze for Spinning Munitions <i>Dr. Robert Messenger, Kaman Precision Products</i>

5:00PM CONFERENCE ADJOURNED