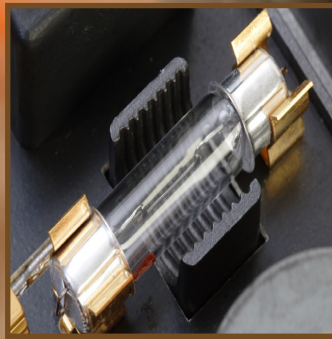


# 56<sup>TH</sup> ANNUAL FUZE CONFERENCE

“NEXT GENERATION FUZING FOR NEXT GENERATION WEAPONS”



CONFERENCE BROCHURE

HILTON BALTIMORE ► BALTIMORE, MD

EVENT #2560

MAY 14-16, 2012

[WWW.NDIA.ORG/MEETINGS/2560](http://WWW.NDIA.ORG/MEETINGS/2560)

## MONDAY, MAY 14, 2012

- 1:00pm - 6:30pm **REGISTRATION OPEN – KEY BALLROOM SOUTH FOYER**
- 2:00pm - 4:00pm **DISPLAY SET-UP – KEY BALLROOM 2-4**
- 5:00pm - 6:30pm **OPENING/NETWORKING RECEPTION IN DISPLAY AREA**

## TUESDAY, MAY 15, 2012 *\*Please, No Cell Phones or Electronic Recording Devices During Sessions\**

- 7:00am - 7:00pm **REGISTRATION OPEN – KEY BALLROOM SOUTH FOYER**
- 7:00am - 8:00am **CONTINENTAL BREAKFAST IN DISPLAY AREA**

### SESSION I - WELCOME & ADMINISTRATIVE ANNOUNCEMENTS / KEYNOTE ADDRESS

- 8:00am - 8:10am **WELCOME & ADMINISTRATIVE ANNOUNCEMENTS – KEY BALLROOM 7-12**
- ▶ Mr. Eric Roach, *Senior Staff Engineer, Lockheed Martin; Chairman, NDIA Fuze Committee*
- 8:10am - 8:50am **KEYNOTE ADDRESS**
- ▶ Mr. Tony Melita, *President, Melita Consulting*

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

**Session Chairs:** Dr. Barry Neyer, *Chief Technology Officer, Advanced Electronic Systems, Excelitas Technologies Corporation* & Mr. Dave Lawson, *Chief Engineer, L-3 Fuzing & Ordnance Systems*

- 8:50am - 9:20am **AIR FORCE S&T & ACQUISITION STRATEGY**
- ▶ Mr. Tim Tobik, *Fuze Branch Chief, Air Force Armament Laboratory*
- 9:20am - 9:50am **NAVY S&T & ACQUISITION STRATEGY**
- ▶ Mr. John Hendershot, *NSWC - Indian Head*
- 9:50am - 10:20am **ARMY S&T & ACQUISITION STRATEGY**
- ▶ Mr. Philip Gorman, *Competency Manager, Fuze Division, ARDEC*
  - ▶ Mr. Mark Etheridge, *Electronics Engineer, U.S. Army ARDEC*
- 10:20am - 10:40am **MORNING NETWORKING BREAK IN DISPLAY AREA**
- Thank You to Our Sponsor*



**Fuzing & Ordnance Systems**

- 10:40am - 11:10am **OSD PERSPECTIVE/FUZE IPT**
- ▶ Mr. Charles Kelly, *OUSD (AT&L) Land Warfare and Munitions*
- 11:10am - 11:40am **JOINT FUZE TECHNOLOGY PROGRAM**
- ▶ Mr. Lawrence Fan, *NSWC - Indian Head*

- 11:40am - 12:00pm **AWARDS CEREMONY**
- 12:00pm - 1:00pm **LUNCH — KEY BALLROOM 5&6**
- 1:00pm - 5:20pm **OPEN CONCURRENT SESSION IIIA — KEY BALLROOM 7, 9, 10**  
*Please refer to the following pages for the open session schedule*
- 1:00pm - 5:20pm **CLOSED CONCURRENT SESSION IIIB — KEY BALLROOM 8, 11, 12**  
*Please refer to the following pages for the closed session schedule*
- 3:00pm - 3:20pm **AFTERNOON NETWORKING BREAK IN DISPLAY AREA**  
*Thank You to Our Sponsor*



**Fuzing & Ordnance Systems**

- 5:30pm - 7:00pm **CONFERENCE RECEPTION IN DISPLAY AREA**  
*Thank You to Our Sponsor*



**WEDNESDAY, MAY 16, 2012** *\*Please, No Cell Phones or Electronic Recording Devices During Sessions\**

- 7:00am - 5:20pm **REGISTRATION OPEN — KEY BALLROOM SOUTH FOYER**
- 7:00am - 8:00am **CONTINENTAL BREAKFAST IN DISPLAY AREA**
- 8:00am - 12:00pm **OPEN CONCURRENT SESSION IVA — KEY BALLROOM 7, 9, 10**  
*Please refer to the following pages for the open session schedule*
- 8:00am - 12:00pm **CLOSED CONCURRENT SESSION IVB — KEY BALLROOM 8, 11, 12**  
*Please refer to the following pages for the closed session schedule*
- 10:00am - 10:20am **MORNING NETWORKING BREAK IN DISPLAY AREA**
- 12:00pm - 1:00pm **LUNCH — KEY BALLROOM 5&6**
- 1:00pm - 5:20pm **OPEN CONCURRENT SESSION VA — KEY BALLROOM 7, 9, 10**  
*Please refer to the following pages for the open session schedule*
- 1:00pm - 5:20pm **CLOSED CONCURRENT SESSION VB — KEY BALLROOM 8, 11, 12**  
*Please refer to the following pages for the closed session schedule*
- 3:00pm - 3:20pm **AFTERNOON NETWORKING BREAK IN DISPLAY AREA**
- 3:20pm - 5:20pm **DISPLAY DISMANTLE**
- 5:20pm **CONFERENCE ADJOURNED**

TUESDAY, MAY 15, 2012

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
<b>SESSION IIIA</b> KEY BALLROOM 7, 9, 10 Session Chairs: Mr. Ken Kelly & Mr. Roy Streetz	OPEN SESSION	Open (TBD)	13754 - The SPACIDO: A Course Correction Fuze System  Mr. Renaud Lafont, <i>NEXTER Munitions</i>	13680 - Precision Guidance Kit Program Update  Dr. Lyle Johnson, <i>ATK</i>	13938 - Scalable Airburst Fuze Technology — Shaping the Future  Mr. David Andersen, <i>General Dynamics - OTS</i>	13773 - Electronic Safety and Arming Device for the 105 mm STAR ATO Demonstration  Mr. Robert Johnson, <i>Electronics Development Corporation</i>	13770 - Active Mitigation: Rocket Initiator Thermally Activated (RITA) IM Device for the MK22  Mr. Matthew Sanford & Mr. John Swain, <i>NSWC - Indian Head</i>
<b>SESSION IIIB</b> KEY BALLROOM 8, 11, 12 Session Chairs: Dr. Tom Baginski & Mr. Marty Tanenhaus	CLOSED SESSION	13710 - G-switch Design and Spin Switch Improvement  Mr. Michael Pica, <i>U.S. Army ARDEC</i>	13705 - MEMS Retard and Impact Sensors  Mr. Walter Maurer, <i>NAWCWD - China Lake</i>	13702 - MEMS Optical Ignition Switch for THAAD  Mr. Alex Cox, <i>NSWC - Indian Head</i>	13766 - MEMS Fuze for the Marine Corps Flight Controlled Mortar  Dr. Daniel Jean, <i>NSWC - Indian Head</i>	13758 - Very Low-g Metal MEMS Switches for Inertial Detection  Mr. Ryan Knight, <i>U.S. Army Research Laboratory</i>	13704 - MEMS S&A for Full Bore Submunitions  Mr. Dale Spencer, <i>Kaman Precision Products</i>

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

3:20PM - 5:20PM CONCURRENT SESSIONS

SESSION	CLASSIFICATION	3:20PM	3:40PM	4:00PM	4:20PM	4:40PM	5:00PM
<b>SESSION IIIA</b> KEY BALLROOM 7, 9, 10 Session Chairs: Mr. Ken Kelly & Mr. Roy Streetz	OPEN SESSION	13698 - The Future of Grenade Fuzing  Mr. Richard Lauch, <i>U.S. Army</i>	13753 - New Generation Naval Artillery Multi-Function Fuze  Mr. Max Perrin, <i>Junghans Microtec</i>	13748 - Lightweight Modular Missile Integrated Safety & Arming Unit and Lethal Payload  Mr. Laurie Turner, <i>Thales Missile Electronics</i>	13778 - Energy Harvesting IC for Fuzing Applications  Mr. John Ambrose, <i>Mixed Signal Integration</i>	13719 - Electronic Parts Challenges in Fuzing Systems  Mr. Dave Liberatore, <i>ATK ABL Operations</i>	13775 - The Endevo® High-g Shock Triaxial Accelerometer: a Smaller, More Cost-Effective Solution to Making Triaxial Measurements  Mr. James Letterneau, <i>Meggitt Sensing Systems</i>
<b>SESSION IIIB</b> KEY BALLROOM 8, 11, 12 Session Chairs: Dr. Tom Baginski & Mr. Marty Tanenhaus	CLOSED SESSION	13670 - Miniature IMU/INS with Fused Low Drift MEMS Sensors for Weapon Applications in GPS-denied Environments  Mr. Marty Tanenhaus, <i>Tanenhaus &amp; Associates</i>	13806 - Mechanical Environment of Fuze Electronics During Hard Target Penetration  Dr. Jason Foley, <i>Air Force Research Laboratory</i>	13722 - Fuzing for HDBT Defeat  Mr. Jeremy Oligmueller, <i>ATK Eltcon Operations</i>	13807 - Observing & Interpreting the Fuze Environment in High Velocity Penetration Events  Dr. Jason Foley, <i>Air Force Research Laboratory</i>	13811 - Fuze Modeling Grand Challenge: Computational Comparisons  Dr. Janet Wolfson, <i>Air Force Research Laboratory</i>	13720 - 3DDR-AM Penetrator Fuze Instrumentation  Mr. Michael Partridge, <i>Sandia National Laboratories</i>

5:30PM - 7:00PM CONFERENCE RECEPTION IN DISPLAY AREA

WEDNESDAY, MAY 16, 2012

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
<b>SESSION IVA</b> KEY BALLROOM 7, 9, 10 Session Chairs: Mr. Telly Manolatos & Mr. Lawrence Fan	OPEN SESSION	13779 - High Survivability Accelerometer for Fuze Applications  Mr. Randall Martin, <i>Meggitt Sensing Systems, SJC</i>	13731 - Advances in Thin-Film Thermal Battery Processes: Performance and Cost Benefits  Mr. Jeffrey Reinig, <i>Advanced Thermal Batteries</i>	13708 - Tailoring the Size and Performance of a Reserve Lithium Battery to the Next Generation Fuzes  Mr. Olivier Clesca, <i>Thales Cryogenics BV</i>	13747 - Low Cost Lidar Target Detection Device — Maturation  Mr. Gary Buzzard, <i>Thales Missile Electronics</i>	13745 - Development of Direct Write Tech. for Complex Filled Pattern Using 3-Axis Desktop Robot  Dr. Harries Muthurajan, <i>Energetics Research Institute</i>	13616 - Insensitive Munitions Fuze Solution  Dr. Carl Campagnuolo, <i>USSOCOM</i>
<b>SESSION IVB</b> KEY BALLROOM 8, 11, 12 Session Chairs: Mr. Tim Tobik & Mr. Robert Hertlein	CLOSED SESSION	13718 - A New Method for Radar-Based Proximity  Mr. Christopher Fuller, <i>ATK Advanced Weapons</i>	13734 - FMCW Target Classification Prox Development  Mr. Charles Overman, <i>University of Florida Electronic Comm Lab</i>	13818 - Advanced Initiation Technologies for Weapon Systems in 22nd Century  Mrs. Aubrey Farmer, <i>NAWCWD - China Lake</i>	13783 - Performance of MEMS Electric Initiators: Reactive vs. Inert  Mr. Daniel Pines, <i>NSWC - Indian Head</i>	13689 - A Miniaturized, Shock Hardened ESAD for Engaging a Wide Variety of Targets  Mr. Justin Graves, <i>Excelitas Technologies</i>	13937 - An Electromechanical S&A Suitable for Specialized Miniature Munitions  Mr. Deric Mason, <i>NAWCWD - China Lake</i>

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

10:20AM - 12:00PM CONCURRENT SESSIONS

SESSION	CLASSIFICATION	10:20AM	10:40AM	11:00AM	11:20AM	11:40AM
<b>SESSION IVA</b> KEY BALLROOM 7, 9, 10 Session Chairs: Mr. Telly Manolatos & Mr. Lawrence Fan	OPEN SESSION	13744 - Clock Programmable Mixer for Fuze IF with Filter  Mr. Jeff Thompson, <i>Mixed Signal Integration</i>	13746 - Mid Range Fuze Power — Harvesters/Batteries/ Or?  Mr. Harald Wich, <i>Diehl &amp; Eagle Picher</i>	13762 - Aluminum Honeycomb Characterization and Modeling for Fuze Testing  Dr. Daniel Peairs, <i>L-3 Fuzing and Ordnance Systems</i>	13735 - Probabistic Technology Application for High Reliability Fuze  Mr. Lee Luong, <i>Picatunny Arsenal</i>	13749 - Post Safe Separation Reliability Requirements for Fuzing Systems from Surface Risk Criteria  Dr. Ivo Häring, <i>Fraunhofer Institute for High-Speed-Dynamics EMI</i>
<b>SESSION IVB</b> KEY BALLROOM 8, 11, 12 Session Chairs: Mr. Tim Tobik & Mr. Robert Hertlein	CLOSED SESSION	13661 - Development of an Autonomous Target Discriminating Dual Mode Fuze for an 83mm  Mr. Dominic Jezierski, <i>Nammo Talley</i>	13771 - ESAD for the Small Tactical Munition (STM)  Dr. Paul Scott, <i>Kaman Precision Products</i>	13711 - Development of a Target Discriminating Shoulder Launched Munition Fuze  Mr. John Geaney, <i>U.S. Army ARDEC</i>	13666 - Thin Film Dielectric Breakdown Characterization for High Voltage Switch Applications Progress  Mr. Bradley Hanna, <i>NSWC - Dahlgren</i>	13717 - Side Mounted Height of Burst Sensor for the Laser Joint Direct Attack Munition  Mr. Brian Miracle, <i>L-3 Fuzing and Ordnance Systems</i>

12:00PM - 1:00PM LUNCH — KEY BALLROOM 5&6

WEDNESDAY, MAY 16, 2012 — *Continued*

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
<b>SESSION VA</b> KEY BALLROOM 7, 9, 10 Session Chairs: Mr. Don Shutt & Mr. Bruce Hornberger	OPEN SESSION	13750 - Modeling, Simulation, and Experiments for EFI Design and Characterization  Mr. Stefan Ebenhoech, <i>Fraunhofer Institute for High-Speed-Dynamics EMI</i>	13737 - CRC-16 Check on Flash Based Logic Devices in the Implementation of Safety Features  Mr. Anthony Steele, <i>U.S. Army RDECOM AMRDEC</i>	13767 - New Techniques in Producing and Controlling the Laboratory High-g  Mr. Morris Berman, <i>U.S. Army Research Laboratory</i>	13776 - Advanced ESAD and ISD Factory and Field Test Systems  Mr. Roy Streetz, <i>Excelitas Technologies</i>	13647 - An Introduction to VERA: A Low-Cost, Low-Acceleration Transonic Impact Gun  Mr. David Hall, <i>NAWCWD - China Lake</i>	13713 - Prototyping Fuze Electronics with Rigid-Flex Technology  Mr. Stephen Redington, <i>U.S. Army ARDEC</i>
<b>SESSION VB</b> KEY BALLROOM 8, 11, 12 Session Chairs: Mr. Eric Roach & Mr. Francis Mattia	CLOSED SESSION	13687 - Enabling Technologies for Miniature Firing Systems  Mr. Chuck Treu, <i>NNSA Kansas City Plant</i>	13727 - Miniaturization & Hardening of Fuzing Systems Applied to 30mm Air Bursting Munitions  Mr. Rod Moser, <i>ATK Elkton Operations</i>	13759 - Zig Zag Setback Switch for STAR ATO Program  Mr. Marc Worthington, <i>L-3 Fuzing and Ordnance Systems</i>	13768 - Developments in High Voltage LTCC Transformers  Mr. George Slama, <i>NASCENTechnology</i>	13777 - Multipoint Selectable Electronic Initiation for Legacy and IM-Compliant Applications  Dr. Amish Desai, <i>Tanner Research</i>	13824 - Rapid Development & Demonstration of Penetration — Hardened FMU-139 Bomb Fuze  Mr. Alan Derkey, <i>NAWCWD - China Lake</i>

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

3:20PM - 5:20PM CONCURRENT SESSIONS

SESSION	CLASSIFICATION	3:20PM	3:40PM	4:00PM	4:20PM	4:40PM	5:00PM
<b>SESSION VA</b> KEY BALLROOM 7, 9, 10 Session Chairs: Mr. Don Shutt & Mr. Bruce Hornberger	OPEN SESSION	13751 - Standardization of Classical System Analysis Methods for Fuzing Systems  Dr. Ivo Häring, <i>Fraunhofer Institute for High-Speed-Dynamics EMI</i>	13688 - The Informant Nano Recorder  Mr. Justin Graves, <i>Excelitas Technologies</i>	13730 - Wafer-Level Packaging for High Aspect Ratio MEMS  Mr. Kevin Cochran, <i>NSWC - Indian Head</i>	13765 - High-g MEMS Fuzes  Mr. Wallace Tang, <i>Laserlith-MicroAssembly</i>	14118 - New Electrical Stress Test for MIL-STD-331  Mr. Tony DiGiacomo & Mr. Nick Cali, <i>U.S. Army ARDEC</i>	14119 - New Fuze Safety Guidelines for MIL-STD-1316 Rev F  Mr. Chris Janow, <i>U.S. Army ARDEC</i>
<b>SESSION VB</b> KEY BALLROOM 8, 11, 12 Session Chairs: Mr. Eric Roach & Mr. Francis Mattia	CLOSED SESSION	13723 - Hard Target Void Sensing Fuze (HTVSF) Update  Mr. Wayne Steege, <i>ATK Elkton Operations</i>	13763 - Scalable Technology for Adaptive Response (STAR) 105mm Fuze System Overview Prox Sensor Development  Mr. Evan Young, <i>U.S. Army ARDEC</i>	13784 - A Low-Voltage Command-Arm System for Distributed Fuzing  Mr. Mark Etheridge, <i>U.S. Army AMRDEC</i>	13685 - Detonation Phenomena in Deposited Explosives at Sub-Millimeter Dimensions  Mr. Alex Tappan, <i>Sandia National Laboratories</i>	13774 - Fuze for PADGM Demonstration  Mr. Robert Johnson, <i>Electronics Development Corporation</i>	13706 - Void Sensing Fuze (VSF) Product Improvement Program (PIP)  Mr. Dale Spencer, <i>Kaman Precision Products</i>

5:20PM CONFERENCE ADJOURNED

## TABLE TOP DISPLAY INFORMATION

### DISPLAYING COMPANIES

- ▶ LANSMONT CORPORATION
- ▶ W & H STAMPINGS & FINEBLANKING
- ▶ NANOPRECISION PRODUCTS, INC.
- ▶ MEGGITT SENSING SYSTEMS/ENDEVCO
- ▶ NOVACAP, INC.
- ▶ OMNITEK PARTNERS, LLC
- ▶ PCB PIEZOTRONICS, INC.
- ▶ EXCELITAS TECHNOLOGIES
- ▶ ENERSYS, INC.
- ▶ CIRCOR AEROSPACE PRODUCTS GROUP
- ▶ VITZROCELL CORPORATION
- ▶ ADVANCED THERMAL BATTERIES, INC.

### DISPLAY HOURS

Below are the advertised/published hours for the Table Top Displays.

#### Monday, May 14

2:00pm - 4:00pm — **Set-up**  
5:00pm - 6:30pm

#### Tuesday, May 15

7:00am - 8:00am  
10:20am - 10:40am  
3:00pm - 3:20pm  
5:30pm - 7:00pm

#### Wednesday, May 16

7:00am - 8:00am  
10:00am - 10:20am  
3:00pm - 3:20pm  
3:20pm - 5:20pm — **Dismantle**

## HARRY DIAMOND FUZING EXCELLENCE AWARD

The Harry Diamond Fuzing Excellence Award recognizes the individual who, in the judgment of the panel, has made the greatest overall contribution to the fuze program during their lifetime. The achievements for which this award has been considered may relate to any of the many components that make up this highly diverse, complex, vital commodity, from R&D through demilitarization and disposal.

## ADDITIONAL AUTHORS

<b>Abstract ID</b>	<b>Abstract Title</b>	<b>Additional Authors</b>
13616	Insensitive Munitions Fuze Solution	Mr. William Andrews Mr. Vincent Gonsales
13661	Development of an Autonomous Target Discriminating Dual Mode Fuze for an 83mm	Mr. Matt O'Neal
13685	Detonation Phenomena in Deposited Explosives at Sub-Millimeter Dimensions	Mr. J. Patrick Ball Mr. Robert Knepper Mr. Michael Marquez Ms. Jill Miller
13687	Enabling Technologies for Miniature Firing Systems	Mr. Ken Jensen Mr. Troy Kaeb
13704	MEMS S&A for Full Bore Submunitions	Mr. Keith Amadio Mr. Rich Chen Mr. Will McFarland
13705	MEMS Retard and Impact Sensors	Dr. Daniel Jean Mr. Ryan Knight
13706	Void Sensing Fuze (VSF) Product Improvement Program (PIP)	Mr. Jon Rice
13708	Tailoring the Size and Performance of a Reserve Lithium Battery to the Next Generation Fuzes	Mr. Gert Boogerd
13713	Prototyping Fuze Electronics With Rigid-Flex Technology	Mr. Chris Macrae Mr. Matthew Sargent Mr. Bobby Zienowicz
13722	Fuzing for HDBT Defeat	Ms. Becky Hart
13727	Miniaturization & Hardening of Fuzing Systems Applied to 30mm Air Bursting Munitions	Mr. Richard Bottenberg
13730	Wafer-Level Packaging for High Aspect Ratio MEMS	Dr. Daniel Jean
13734	FMCW Target Classification Prox Development	Mr. Evan Young
13737	CRC-16 Check on Flash Based Logic Devices in the Implementation of Safety Features	Mr. Wayne Eads Mr. Daniel Pitts
13744	Clock Programmable Mixer for Fuze IF with Filter	Mr. Douglas Cox Mr. Trong Huynh
13745	Development of Direct Write Technology for Complex Filled Pattern Using 3-Axis Desktop Robot	Prof. How-Ghee Ang Mr. Zihao Teo
13749	Post safe Separation Reliability Requirements for Fuzing Systems from Surface Risk Criteria	Mr. Thomas Aschmoneit Mr. Martin Voss
13750	Modeling, Simulation, and Experiments for EFI Design and Characterization	Dr. Ivo Häring Dr. Siegfried Nau
13751	Standardization of Classical System Analysis Methods for Fuzing Systems	Mr. Bülent Kanat Mr. Uli Siebold
13754	The SPACIDO: A Course Correction Fuze System	Mr. Benjamin Campion
13758	Very Low-g Metal MEMS Switches for Inertial Detection	Dr. Todd Christenson
13762	Aluminum Honeycomb Characterization and Modeling for Fuze Testing	Mr. John Burger



## ADDITIONAL AUTHORS

Abstract ID	Abstract Title	Additional Authors
13763	Scalable Technology for Adaptive Response (STAR) 105mm Fuze System Overview Prox Sensor Development	Mr. Phil Carlson Mr. Jim Kurtz Mr. Chad Overman
13765	High-g MEMS Fuzes	Mr. Kevin Chang Ms. Cassindy Chao Dr. Michael Cohn Mr. Ross Millenacker
13766	MEMS Fuze for the Marine Corps Flight Controlled Mortar	Mr. Kevin Cochran
13770	Active Mitigation: Rocket Initiator Thermally Activated (RITA) IM Device for the MK22	Mr. John Swain
13771	ESAD for the Small Tactical Munition (STM)	Mr. Donald Golding
13773	Electronic Safety and Arming Device for the 105 mm STAR ATO Demonstration	Mr. Evan Young
13774	Fuze for PADGM Demonstration	Mr. Evan Young Mr. Steward Genberg
13777	Multipoint Selectable Electronic Initiation for Legacy and IM-compliant Applications	Mr. Steve Chau Mr. Russ Pina Mr. Sean Swaszek
13778	Energy Harvesting IC for Fuzing Applications	Ms. Van Vane
13779	High-Survivability Accelerometer for Fuze Applications	Mr. James Letterneau
13806	Mechanical Environment of Fuze Electronics During Hard Target Penetration	Dr. Alain Beliveau 1st Lt Jennifer Caulk, USAF Dr. Derek Reding Mr. Ken Williamson
13807	Observing & Interpreting the Fuze Environment in High Velocity Penetration Events	Dr. Alain Beliveau Mr. Stephen Szczepanski
13824	Rapid Development & Demonstration of Penetration-Hardened FMU-139 Bomb Fuze	Mr. Walt Maurer
13938	Scalable Airburst Fuze Technology — Shaping the Future	Mr. Paul Reynolds
14118	New Electrical Stress Test for MIL-STD-331	Mr. Nick Cali

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Fuzing & Precision Products

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### **Fuzing & Ordnance Systems**

L-3 Fuzing & Ordnance Systems, a division of L-3 Precision Engagement Sector under L-3 Electronics Systems Group, is a key manufacturer and supplier of critical weapon components and technologies. These include electro-mechanical and electronic fuzing, Electronic Safe and Arm Devices (ESADs) and Electronic Safe and Arm Fuzes (ESAFs), Height of Burst Sensors, Flight Termination Systems, and Ignition Safety Devices.

L-3 FOS' history evolved from precision watch making dating to the late 1800s and mechanical fuze manufacture during WWII. The same precision and high reliability engineering is evident in our product portfolio which spans Artillery, Mortars, Missiles, Bombs, and other advanced weapon applications, as well as our reputation as the leading fuzing manufacturer for the U.S. Government.



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OPEN SESSION PROCEEDINGS WILL BE AVAILABLE  
FOR DOWNLOAD WITHIN 2 WEEKS OF THE  
CONFERENCE AT:

<http://www.dtic.mil/ndia/2012fuze/2012fuze.html>

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## ATTENDEE LIST

Final attendee lists for the conference will be posted on the event website at [www.ndia.org/meetings/2560](http://www.ndia.org/meetings/2560), under the 'Attendee Information' tab, within 1 week of the conference.

THANK YOU FOR ATTENDING!  
WE LOOK FORWARD TO SEEING YOU  
NEXT YEAR:

APRIL 30 - MAY 2, 2013  
SAN DIEGO, CA