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NDIA
AT THE HEART
OF THE MISSION



64TH ANNUAL **FUZE** CONFERENCE

Continued Fuze Advancements amid a Global Pandemic

May 11 – 12, 2021 | [NDIA.org/Fuze21](https://ndia.org/Fuze21)

AGENDA

TUESDAY, MAY 11

10:00 – 10:05 am
All times listed in EDT

OPENING AND ADMIN REMARKS

Thomas Harward

Lead Technologist, Fuze & Safety Devices, Advanced Systems, Raytheon Technologies

10:05 – 10:15 am

NDIA OPENING REMARKS

MG James Boozer, USA (Ret)

Executive Vice President, National Defense Industrial Association

10:15 – 10:45 am

KEYNOTE SPEAKER

Charles Kelly

Acting Director, Surface Warfare, Office of the Under Secretary of Defense (Acquisition & Sustainment)

10:45 – 10:50 am

BREAK

10:50 – 11:15 am

SOUTHERN ARMY S&T STRATEGY

Mark Etheridge

Electronics Engineer, Fuzing & Ignition Systems, Aviation and Missile Center,
U.S. Army Combat Capabilities Development Command

11:15 – 11:20 am

BREAK

11:20 – 11:45 am

NAVY S&T STRATEGY

Ciarra Villa

Head, Safe-Arm and Fuze Engineering Branch, Weapons Division, Naval Air Warfare Center

11:45 – 11:50 am

BREAK

11:50 am – 12:15 pm

AIR FORCE S&T STRATEGY

George Jolly

Technical Advisor, Air Force Research Laboratory

12:15 – 12:35 pm

NETWORKING & LUNCH BREAK

12:35 – 12:55 pm

EXHIBITOR SHOWCASE

12:55 – 1:00 pm

BREAK

1:00 – 1:20 pm

**WIRELESS POWER TRANSMISSION AND COMMUNICATION FOR
REMOTE FUZING (23605)**

Thomas Hartmann

Research and Development Engineer, Sandia National Laboratories

Ian Sobering

Sandia National Laboratories

1:20 – 1:25 pm

BREAK

1:25 – 1:45 pm

**MICRO FIRING SET: OPTICALLY CHARGING, COMMUNICATING WITH, AND
TRIGGERING A CAPACITIVE DISCHARGE UNITY (CDU) FIRING SET (23574)**

Mark Onuigbo

Senior Member, Technical Staff, Sandia National Laboratories

Thomas Hartmann

Research and Development Engineer, Sandia National Laboratories

1:45 – 1:50 pm

BREAK

1:50 – 2:10 pm

HIGH SHOCK MODELING OF FUZE COMPONENTS (23609)

Chris Cao

Mechanical Engineer, Naval Surface Warfare Center – Indian Head Division

2:10 – 2:15 pm

BREAK

2:15 – 2:35 pm

**BINARY TRIAL AND STATISTICAL ANALYSIS METHODS FOR
ELECTRO-EXPLOSIVE DEVICE CHARACTERIZATION (23560)**

Ashley de Lotz

Senior Initiation Systems Engineer, Defence Ordnance Safety Group

Michael Hicks

Statistical & Mechanical Modelling & Simulation Specialist, Defence Ordnance Safety Group

2:35 – 2:40 pm

BREAK

2:40 – 3:00 pm

**DETONATION TRANSFER RELIABILITY – AXIAL AND ANGULAR
ALIGNMENT EVALUATIONS USING A NEYER STATISTICAL SENSITIVITY
APPROACH (23541)**

David Pray

Energetic Components Engineer, Excelitas Technologies

3:00 – 3:05 pm

BREAK

3:05 – 3:25 pm

EXPLODING FOIL INITIATOR DEVELOPMENT (23542)

David Pray

Energetic Components Engineer, Excelitas Technologies

3:25 – 3:30 pm

CLOSING REMARKS

Thomas Harward

Lead Technologist, Fuze & Safety Devices, Advanced Systems, Raytheon Technologies

WEDNESDAY, MAY 12

10:00 – 10:05 am

INTRODUCTION & ADMIN REMARKS

Thomas Harward

Lead Technologist, Fuze & Safety Devices, Advanced Systems, Raytheon Technologies

10:05 – 10:30 am

NORTHERN ARMY S&T STRATEGY

Robert Alston

Electronics Engineer, Fuze Division, Armaments Center, U.S. Army Combat Capabilities Development Command

10:30 – 10:35 am

BREAK

10:35 – 11:00 am

SANDIA NATIONAL LABORATORIES CAPABILITIES AND MISSION

Shane Curtis

Senior Staff Member, Sandia National Laboratories

11:00 – 11:05 am

BREAK

11:05 – 11:30 am

DOD JOINT FUZE TECHNOLOGY PROGRAM (JFTP)

Lawrence Fan

Fuze Program Manager, Explosive Ordnance Disposal Technology Division,
Naval Surface Warfare Center – Indian Head Division

11:30 – 11:35 am

BREAK

11:35 – 11:55 am

SENSING FOR SMALL UNMANNED SYSTEMS (23631)

Caitlyn May

Sensing for Small Unmanned Systems, Naval Sea Systems Command,
Naval Surface Warfare Center – Indian Head Division

11:55 am – 12:00 pm	BREAK
12:00 – 12:20 pm	NOVEL 2ND ENVIRONMENT SENSOR FOR NEXT GENERATION WEAPONS (23612) Matthew Grubbs Design Engineer, L3Harris, Fuzing and Ordnance Systems, Inc.
12:20 – 12:40 pm	NETWORKING & LUNCH BREAK
12:40 – 1:00 pm	EXHIBITOR SHOWCASE
1:00 – 1:05 pm	BREAK
1:05 – 1:25 pm	NEW FUZING SOLUTIONS FOR IMPROVED SAFETY AND OPERATIONAL CAPABILITIES (23590) Max Perrin Chief Technical Director, JUNGHANS Defense
1:25 – 1:30 pm	BREAK
1:30 – 1:50 pm	CANNON CALIBER FUZE SETTER OVERVIEW (23494) Tyler Wilson Electronics Engineer, U.S. Army
1:50 – 1:55 pm	BREAK
1:55 – 2:15 pm	HIGH VOLTAGE FIRESET COMPONENT BEHAVIOR AT ELEVATED TEMPERATURES (23610) Chris Cao Mechanical Engineer, Naval Surface Warfare Center – Indian Head Division
2:15 – 2:20 pm	BREAK
2:20 – 2:40 pm	EXPLORATION OF ENABLING TECHNOLOGIES FOR HYPERSONIC EMBEDDED FUZING (23572) Caleb White Research and Development Mechanical Engineer, Sandia National Laboratories

2:40 – 2:45 pm

BREAK

2:45 – 3:05 pm

CONFORMAL ANTENNA DESIGN FOR PROXIMITY FUZES (23615)

Dr. Simsek Demir

Chief Executive Officer, PRF Research and Development Inc.

3:05 – 3:10 pm

BREAK

3:10 – 3:30 pm

SOFTWARE DEFINED RADIO FOR MEDIUM CALIBER APPLICATIONS

Viktor Bana

Electronics Engineer, Armaments Center, U.S. Army Combat Capabilities Development Command

3:30 – 3:40 pm

CLOSING REMARKS

Thomas Harward

Lead Technologist, Fuze & Safety Devices, Advanced Systems, Raytheon Technologies

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