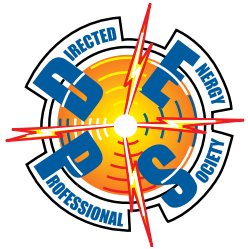


Technical Program



Joint Conference on T&E Support to Prototyping & Experimentation

Hosted by
International Test and
Evaluation Association
and
Directed Energy
Professional Society

15 - 17 January 2019
Albuquerque, New Mexico

TUESDAY

Short Courses / Tutorials

0700 Registration

0800 Morning Tutorials Begin

TUTORIAL I (Limited Distribution C)

T&E of HEL Systems

Dr. Larry McKee

Alvarado Room A

TUTORIAL II (Limited Distribution C)

T&E of HPM Systems

Dr. Jeff Schleher

Alvarado Room B

TUTORIAL III

Section 804 Rapid Acquisition Authority

Seth Shepherd

Weavers Room

1200 Lunch

1300 Afternoon Tutorials Begin

TUTORIAL IV (Limited Distribution D)

**Design of Tests for Transitioning DE Weapon
Systems to Acquisition Programs for Warfighter
Fielding (formerly known as DE Design of Tests)**

Robert Newton and Dan Isbell

Alvarado Room A

TUTORIAL V

Predicting & Validating Prototype Performance

Mark Kiemele

Alvarado Room B

WEDNESDAY MORNING

Plenary Session

Alvarado Ballroom

- 0700 **Registration Desk Opens**
Continental Breakfast in the Exhibit Area
- 0800 **Welcome: National Anthem by Madison Young and Posting of the Colors, Kirtland Air Force Base Honor Guard**
- 0815 **Opening Remarks**
Mr. Patrick Cannon, Conference Co-Chair
- Remote Remarks**
Senator Martin Heinrich, New Mexico
- 0830 *Mr. James Faist, Director of Defense Research and Engineering for Advanced Capabilities, Under Secretary of Defense Research and Engineering*
- 0915 *Dr. David A. Horner, Director, Information Technology Laboratory, Engineer Research and Development Center, US Army Corps of Engineers*
- 1000 **Break**
- 1030 *Dr. Kelly Hammett, Director, Directed Energy Directorate, Air Force Research Laboratory*
- 1100 **Panel: “Prototyping and Experimentation... What Comes Next”**
Moderator:
Dr. David Stoudt, Booz Allen Hamilton
Panelists:
Paul Shattuck, Director, Directed Energy Systems, Lockheed Martin
Ron Dauk, Program Manager, Boeing Directed Energy Systems
Evan Hunt, Raytheon Space and Airborne Systems
- 1200 **Lunch**

WEDNESDAY AFTERNOON

Measurement and Calibration

Session Chair: *Dr. Subrata Sanyal, Naval Surface Warfare Center*

Alvarado B

- 1300 **A Three-axis Nonintrusive Electro-optic Field Sensor for HPM, HPRF and EMP T&E (D)**
Dr. Dong Wu, Naval Research Laboratory
- 1330 **Updated Advanced Non-Intrusive Field Strength Sensors (D)**
Dr. Jeff Schleher, American Systems
- 1400 **Review of Technical Interchange Meeting between HEL Lethality and T&E Communities (D)**
Dr. J. Thomas Schriempf, NAVSEA Systems Command
- 1430 **Metrology and Calibration of HPM and HPRF Weapon Systems (C)**
Andrew Doan, NSWC
- 1500 **Break**
- 1530 **Role of METCAL in Early Acquisition Lifecycle Phases (C)**
Edward Trovato, NSWC Corona
- 1600 **Fundamentals of High Energy Laser Effects on a Target Material (A)**
Dr. Paul Williams, NIST
- 1630 **Thermodynamic Metrology in the age of Quantum SI (A)**
Dr. Zeeshan Ahmed, NIST
- 1730 **Exhibitors Reception**

WEDNESDAY AFTERNOON

Prototyping and Analysis

Session Chair: *Paul Cravens*, AFRL DE

Alvarado A

- 1300 **Galaxy Software Simulations of Directed Energy: Virtual Prototyping of Sources (D)**
Paul Cravens, AFRL DE
- 1330 **Agile Backdoor Coupling Assessment Methodology (D)**
John Lancaster, University of Missouri Kansas City
- 1400 **High Performance Computing for Accelerating Test and Evaluation and Optimizing and Designing Advanced Weapon Systems (D)**
Sandy Landsberg, DoD High Performance Computing Modernization Program
- 1430 **Engineered Resilient Systems (ERS) for Rapid Prototyping (A)**
Dr. Owen Eslinger, US Army Engineer Research and Development Ctr.
- 1500 **Break**
- 1530 **Tailoring Test for Rapid Prototyping and Experimentation (A)**
Col Douglas Wickert, HQ AF/TE; Policy Programs & Resources
- 1600 **Quantitative Analysis on Tactical Adaptive Optics: An ATHENA Case Study (A)**
Deborah Heicklen and Andrew Bratcher, Lockheed Martin
- 1730 **Exhibitors Reception**

WEDNESDAY AFTERNOON

Atmospheric Effects

Session Chair: *John Dodd*, American Systems

Alvarado C

- 1300 **LASER T&E on the Point Mugu Sea Range, CABLETRAX Results (D)**
Roberto Garcia, NAWC Pt. Magu
- 1330 **Point Measurements with Differential Temperature Sensor (D)**
Alex Clark, IERUS Technologies
- 1400 **Addressing DOTMLPF-P Concerns Related to Atmospheric Supportability of Directed Energy Weapons (D)**
DeLeon Narcisse, AFLCMC/XZMG
- 1430 **Atmospheric Characterization for HEL Beam Propagation: Need for Developing Measurement Standards (C)**
Kevin Janosky, NSWC Corona
- 1500 **Break**
- 1530 **Atmospheric Propagation Instrumentation Test Result (D)**
Mike Sexauer, AFRL/RDLA
- 1600 **Deriving Vertical Turbulence and Extinction Profiles from Path Integrated Measurements using a Small Unmanned Aerial System (sUAS) (A)**
Dr. John Siegenthaler, NAWC China Lake
- 1730 **Exhibitors Reception**

THURSDAY MORNING

Plenary Session

Alvarado Ballroom

- 0700 **Registration Desk Opens**
Continental Breakfast in the Exhibit Area
- 0800 **Welcome**
Mr. Ed Trzecienski, Conference Co-Chair
National Anthem by Madison Young and Posting of the Colors, Kirtland Air Force Base Honor Guard
- 0815 **STEAM Hackathon Challenge (in Salon D)**
- 0815 *Mr. Michael T. McCarthy, Deputy Chief of Staff, Army Capabilities Integration Center*
- 0900 *Dr. Michael Jirjis, Chief, Directed Energy Experimentation, Air Force Strategic Development Planning and Experimentation Office*
- 0945 **Break**
- 1030 *Colonel Douglas P. Wickert, Chief, Policy, Programs and Resources Headquarters, Air Force Test and Evaluation*
- 1100 *Dr. Michael W. Zmuda, Director, Strategic Plans, Analysis and Investments (G 5/9) White Sands Missile Range*
- 1130 **Lunch - STEAM Award Presentations**

THURSDAY AFTERNOON

Normalizing DE T&E at DoD Ranges

Session Chair: *Mark Henderson, AEgis Technologies*
Alvarado A

- 1300 **Normalizing DE T&E at DOD Ranges -- Workshop Outbrief (D)**
Mark Henderson, AEgis Technologies
- 1330 **T&E Capabilities for DE Systems - NAVAIR Ranges (D)**
Milton Gabaldon, NAWC
- 1400 **METCAL- Focused M&S for HEL Measurements (D)**
Dr. Subrata Sanyal, NSWC Corona
- 1430 **Break**
- 1500 **Distributed Experimentation and Testing with TENA, JMETC (A)**
Gene Hudgins, TENA/JMETC
- 1530 **Directed Energy Test & Evaluation -- Front and Center (A)**
Dr. Doug Nelson, Teknikare Inc.
- 1600 **Innovative STEM Education for Tribal Colleges, Schools, and Communities (A)**
Dr. Nadar Vadiee, Southwest Indian Polytechnical Institute
- 1630 **Conference Adjourns**

THURSDAY AFTERNOON

Measurement and Calibration

Session Chair: *Whitney Winchester*, PEO-STRI
PM-ITTS/IMO

Alvarado B

- 1300 **HELMTT 60kW Laser Test Results Using LBADS and ALBADS (D)**
Bo Henderson, Scientic, Inc.
- 1330 **Group 1 UAS Target Board for T&E Support (D)**
Dr. James Luke, AEgis Technologies
- 1400 **Daytime Visor Laser Eye Protection: Ground Testing of Modified Prototypes (D)**
Lt Col Christopher Putnam, 711th Human Performance Wing; Bioeffects Division
- 1430 **Break**
- 1500 **Real Time Laser System Diagnostics in a Vibration Environment (D)**
Dr. Michael Roman, NSWC Dahlgren
- 1530 **Real Time HEL Target Board Visuals (A)**
Dr. David Ward, SemQuest Inc.
- 1600 **Next generation Radiation Pressure Power Meter: Expanding Function and Simplifying Operation (A)**
Dr. Paul Williams, NIST
- 1630 **Conference Adjourns**

THURSDAY AFTERNOON

Distributed T&E Science & Technology (S&T)

Chair: *Gil Torres*, Navy

Alvarado C

- 1300 **Lineup TBD**

THURSDAY AFTERNOON

Classified Session

Chair: *Dr. Diana Loree*, DE JTO

- 1300 **Buses to Classified Location**
- 1330 **Recent DLWS Field Test Results**
- 1400 **Synergies of the HyDRA Military Utility Study**
- 1430 **Test Range Policy and Test Methods for Directed Energy**
- 1500 **J-DETC Update**
- 1630 **Conference Adjourns**

Conference Organizers

Conference Co-Chairs

Pat Cannon, Edward Trzecienski

Conference Technical Co-Chairs

John Cao, Scott Marshall, John Dodd

Tutorial Chair / Technical Program Coordinator

Cristina Crowson

Exhibits and Sponsorship Chair

Lena Moran

STEAM Co-Chairs

Kathi Swagerty, Steve Woffinden

Conference Coordinator

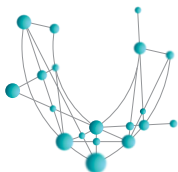
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Security and Registration Coordinator

Tiffany Bjelke

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