2005 Directed Energy Test and Evaluation Conference

2 - 4 August 2005 Albuquerque, New Mexico

Tuesday, 2 August

Marriott Pyramid Hotel

- 0700 Registration Desk Opens Exhibits Set-up
- 0800 **Special Event: DETEC Industry Day** *Mr. Laury Decker and Dr. Larry McKee* Science Applications International Corporation
- 0800 Short Course I: Introduction to High Energy Laser Systems Mr. Denny Boesen Northrop Grumman IT

Short Course II: Introduction to High Power Microwave Systems Dr. Robert Huchins Northrop Grumman

Short Course III: Military Utility Analysis for DE Systems Ms. Linda Lamberson Air Force Research Laboratory/DED

- 1200 Lunch
- 1300 Short Course IV: Test and Evaluations of High Energy Laser Systems Dr. Larry McKee Science Applications International Corporation

Short Course V: Test and Evaluations of High Power Microwave Systems Mr. Jeff Schleher Science Applications International Corporation

- 1630 Short Courses Adjourn
- 1700 Exhibitor Reception

Wednesday Morning, 3 August

Plenary Session

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- 0700 Registration Desk Opens Exhibits Open Continental Breakfast Speakers'/Panel Members' Breakfast
- 0800 Introductions Mr. Patrick Cannon ITEA Roadrunner Chapter and Mr. Rick Graber DEPS
- 0815 Welcome and Opening Remarks Col Alison Hill USAF, Vice Commander, Air Force Operational Test and Evaluation Center
- 0830 Welcome and Opening Remarks Lt Col Kirk Kloeppel Acting Deputy Director, Air Force Research Laboratory/DE
- 0845 DoD Advanced Systems and Concepts Perspective on Directed Energy Dr. Theodore Barna Assistant Deputy Under Secretary of Defense/NBC Technology, Advanced Systems and Concepts
- 0930 Break in Exhibit Area
- 1000 **T&E Perspective on Directed Energy** *Mr. Thomas Berard* USA, Deputy to the Commander and Technical Director, White Sands Missile Range
- 1045 Warfighter Perspective on Directed Energy Brigadier General Philip Coker, USA, Director, Capabilities Developments, Futures Center, US Army Training and Doctrine Command
- 1145 Lunch

Wednesday Afternoon, 3 August

Parallel Session 1 DE Threats SECRET / US ONLY Offsite Location

- 1315 Buses Depart for Classified Session
- 1330 Introduction
- 1345 Chinese Directed Energy Weapon Development
- 1415 RF Weapon Threat Overview
- 1445 Break
- 1500 Satellite Survivability Module
- 1530 The NAGIRA HPM Source For Use in Protection Testing
- 1600 Break
- 1615 Green Laser vs. 727: Radiometric Measurements and Instrumentation
- 1715 Buses Return to Hotel from Classified Session
- 1800 Reception

Wednesday Afternoon, 3 August

Parallel Session 2 Delivering Technology to the Warfighter FOUO Mariott Pyramid Hotel Chair: Dennis Fairchild USASMDC 1330 Introduction Dennis Fairchild USASMDC **Radio Frequency Directed Energy** 1345 Weapon: Foundational Research Noel Montgomery Air Force Research Laboratory/HEDR 1415 CMOS/Post-CMOS Fabrication Of **On-Chip Schottky Diode Microwave Pulse Power Detectors** J. Melngailis University of Maryland Break 1445 1500 Laser Radiation Characterization and Monitoring Using the Laser Event Recorder

and Monitoring Using the Las Event Recorder Craig Schwarze OPTRA, Inc.

- 1530 Development of a LIDAR System for Range Profiles of Turbulence Gary Gimmestad Georgia Tech Research Institute
- 1800 Reception

Wednesday Afternoon, 3 August

Parallel Session 3 Technologies for DE T&E

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- Chair: *Paul Holt* Air Force Operational Test and Evaluation Center
- 1300 **DE T&E S&T Program Overview** *Paul Holt* Air Force Operational Test and Evaluation Center
- 1315 **High Power Microwave Test Support** Jeff Schleher Science Applications International Corporation
- 1345 Laser Test Technology/Projects Jim Griggs Science Applications International Corporation
- 1435 Break
- 1445 A Hardened Remote Digitizer for HPM Test and Evaluation Benjamin Grady Naval Surface Warfare Center
- 1515 Microwave Test Diagnostics Robert Achenbach Titan
- 1545 Break
- 1600 **Modulated Retro-Target Sensor** *Marc Hallada* Schafer Corp
- 1645 Quantum Well Infrared Photodetector Anthony Blea White Sands Missile Range
- 1800 Reception

Thursday Morning, 4 August

Plenary Panels UNCLASSIFIED Mariott Pyramid Hotel 0700 **Registration Desk Opens** Exhibits Open **Continental Breakfast** Speakers'/Panel Members' Breakfast **Plenary Panel A- Delivering** 0800 **Directed Energy Weapon Systems** Chair: Tom Hodge Director, High Energy Laser Strategic Test Facility Panel: -Brian Jonasen USSOCOM, ATL Project Manager -Jagadeesh Pamulapati USA. Chief Technical Officer for Project Manager for Unit of Actions **Technologies** 0930 Break in Exhibit Area 1000 Plenary Panel B - Impacts of DE T&E on Ranges Chair: Thomas Berard USA, Deputy to the Commander and Technical Director, White Sands Missile Range Panel: -William Murphy USN, Range Operations Officer, Pacific Missile Range Facility -Minh Vuong USA, DETEC Project Director, **Program Executive Office** Simulation, Training, and Instrumentation -Bob Harriman (invited), USN, China Lake Weapons Development Center

- 1145 Lunch
- 1200 Exhibits Tear Down

Thursday Afternoon, 4 August

Parallel Session 4 Netcentric/Joint Force T&E

FOUO

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- Chair: Tom Ball USN, Test & Evaluation Manager, Navy Directed Energy & Electric Weapons, PMS 405
- 1330 Introductions Tom Ball PMS 405
- 1345 Advanced Concepts Event II Rudy Martinez Air Force Research Laboratory/DE
- 1415 Joint DE Lethality Testbed Concept Tom Hodge HELSTF
- 1445 Concept for Distributed T&E for Development of Tracking/Aim-point Maintenance Algorithms Stan East HELSTF
- 1515 **Relay Mirror** Don Washburn Air Force Research Laboratory/DE
- 1700 Conference Adjourns

Thursday Afternoon, 4 August

Parallel Session 5 CONEMPS/CONOPS of DE Weapons

Unclassified

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- Chair: *Paul McGuire* USA, Director, Air and Missile Defense Battlelab
- 1330 Introductions Paul McGuire Air and Missile Defense Battlelab
- 1345 **Dynamic Kills From Space** John Anderson Eyemirror, LLC.
- 1415 Concepts for a Compact Chemical Laser Dennis Fairchild Space & Missile Defense Command
- 1445 Break
- 1500 Zeus CONOPS Dennis Fairchild Space & Missile Defense Command
- 1530 ACC Approach to CONOPS Development Brian Dickson Air Combat Command
- 1700 Conference Adjourns

Thursday Afternoon, 4 August

Parallel Session 6 DE Effects/Bioeffects FOUO Mariott Pyramid Hotel Chair: Semih Kumru Air Force Research Laboratory/HED 1330 Introductions Semih Kumru Air Force Research Laboratory/HED 1345 Bioeffects Research For Emerging Directed Energy Technologies Patrick Mason Air Force Research Laboratory/HEDR

- 1415 Health and Safety Limits for Directed Energy: Impact on Test, Evaluation, Training, and Deployment Michael Murphy Air Force Research Laboratory/HED
- 1445 Break
- 1500 Two-Band Infrared Thermographer for Standoff Temperature Measurements Julia Rentz OPTRA, Inc.
- 1530 Crowd Behavior And Non-Lethal Directed Energy Weapons Keith White Air Force Research Laboratory/HEDR
- 1600 The Effect Of The HAVE STAN Laser System On Visual Performance: A Rifle Aiming Task Semih Kumru Air Force Research Laboratory/HEDO
- 1700 Conference Adjourns

Thanks to Our Exhibitors

Ampex Data Systems

Applied Physical Electronics

Atlantic Positioning Systems

DETEC

EMRTC - New Mexico Tech

Fiore Industries, Inc.

Georgia Tech Research Institute

HELSTF

L-3 Brashear

Northrop Grumman

OPTRA, Inc

U.S. Army Big Crow Program

U.S. Army White Sands Missile Range

Organizing Committee

Conference Co-Chairs Rick Graber Pat Cannon

Technical Program Chair Tom Hodge

Exhibits Chair Doug Messer **Registration** *Cynnamon Spain*

ITEA Jean Shivar Short Courses Donna Storment