UK HEL Prelim Agenda
June 12-16, 2017

Plenary

Kip Kendrick

Tuesday June 13

Joint Session- Laser Overarching Issues (Safety/ Legal/ Policy/ Doctrine)

13:00- How much is that LDEW in the window? (A) Andrew Hodges, Arke Ltd.
13:20- Joint Laser Deconfliction Safety System (JLDSS) (C) Melissa Olson, NCWCDD
13:40- Outbrief on the Directed Energy Summit David Stoudt, Booz Allen Hamilton
14:00- NATO von Kärmän Horizon Scanning: Laser DEW (C) Neil Eyre, MBDA
14:20- How should we treat LDEW hazards under operational conditions? (C) Kevin Burrett, DSTL

Laser Weapon Concepts and Military Utility

15:00- UK DragonFire Laser Directed Energy Programme (C) Dr. Mark Owen, MBDA UK Limited
15:20- Through Life Support of LDEW System (C) Kim Andrews, MBDA UK Limited
15:40- Self-Protect High Energy Laser Demonstrator (SHiELD) ATD (Secret) Richard Bagnell, AFRL/RD
16:00- USASDMC Participation in the Joint Improvised-threat Defeat Organization and Fires Center of Excellence Firing Exercises (C) Dr. Kip Kendrick, USASMD/C/ ARSTRAT

Wednesday June 14

High Energy Laser Technologies

09:30- High Temperature Operating Diode Pumps for Directed Energy Fiber Lasers (A) Dr. Manoj Kanskar, nLight, Inc.
09:50- Transverse-modal-instability (TMI)-free Yb-doped Chirally Coupled Core (3C) fiber MOPA (A) Dr. Manoj Kanskar, nLight, Inc.
10:10- HEL Gain Media Trade Study (F) Shane Johnson, AFRL/RDLE
10:30- **Recent Progress on High Power Fiber Lasers (A)** Scott Christensen, IPG Photonics

10:50-

11:10- **Progress in the Development of Mid-IR Lasers (D)** Peter Budni, BAE Systems

11:30- **Advances in Diodes and Fiber Laser Amplifiers for Directed Energy Applications (A)** Dr. Christopher Ebert, Coherent


12:10- **An Assessment of a High Power Laser Amplifier for Coherent Combination (A)** Dr. David Jones, QinetiQ Ltd

12:30-

**Beam Control Technologies**

13:20- **Multi-Spectral Targeting System: AFRL Field Tests for Precision Tracking in Contested Environments (Secret)** John-Paul Sena, AFRL

13:40- **Active Imaging for LDEW systems (C)** Andrew Sijan, Selex ES Ltd

14:00- **Performance of a Low Power 19 Channel Coherently Combined Fiber Laser (A)** Dr. David Jones, QinetiQ Ltd

14:20- **Assessment of a Multichannel Image Motion Sensor for Assessing Turbulence (A)** Simon Woods, QinetiQ Ltd

14:40- **PAMCUT: Precision Aimpoint Maintenance for Directed Energy Systems (A)** Andrew Scott, QinetiQ Ltd

15:00

15:20- **DstlPropagation Trials: Propagation 2 (C)** David Gommon, DSTL

15:40- **An Improved Optical Inertial Reference Unit and its Evaluation (D)** Dr. James Lasche, AFRL

**HEL Systems Engineering and Integration**

16:00- **On Modular Beam Control Systems (D)** Dr. Robert Pawlak, NSWC

16:20- **Modeling and Simulation Codes for Laser Architecture Analysis and Systems Integration (CLAASI) and Size, Weight, and Power (SWaP) Modeling (A)** Dr. James Horkovich, Schafer Corporation

16:40- **Advanced Beam Control for Locating and Engagement (ABLE) (A)** Lawrence Grimes

17:00
**Thursday June 15**

**HEL Effects and Testing**

09:30- Elevated Temperature Failure of Ductile Metals with Applications to the Assessment of Target Vulnerability to Laser Damage (D) Darren Luke, AFRL/RDLE


10:30- Laser Testing of an Air to Air Missile (Secret) Robert Ulibarri, AFRL/RDLE

10:50

11:10- Constructing Probabilistic Dynamic Bidirectional Reflectance Distribution (dBRDF) Functions from Reflection Screen Images (A) Dr. Semih Kumru, 711 HPW/RHDO

11:30- Feasibility Analysis for Direct Measurement of High Energy Laser for Intensity and Phase Parameters at the Aperture to Support Accurate Field Measurements (A) Maj James Bowers, AFIT

11:50- Navy Support to the US/UK Effects of High Energy Lasers Project Arrangement (EHEL PA) (C) Chris Von Hohenleiten, NSWCDD

12:10- Spectroscopic Observation of Plumes from Laser Irradiation of Porous Graphite (A) Dr. Grady Phillips, AFIT/ENP

12:30- Single Photon 3D Imaging Lidar for Tracking and Turbulence Measurement (C) Robert Lamb, Leonardo

12:50-

**Modeling and Simulation**

13:40- DSTL LDEW Lethality Models â€“ TARVIEW and WTI (C) Aidan Cookson, DSTL

14:00- Zap! - Low Fidelity Lethality Modelling (C) Alasdair Jones, DSTL

14:20- Analysis of DSTL Beam Propagation Trial Data (C) Robert Lamb, Leonardo

14:40- LaserFX: Status and Path Forward (F) Dr. Michael Sheyka, AFRL

15:00- Dynamic Engagement Modeling and Test Validation (F) Dr. Michael Sheyka, AFRL

15:20

15:40- High Energy Laser Review and Approval Process Team Methodology and Assessment Process (F) Dr. Michael Sheyka, AFRL
16:00 - Multi-spectral Weather Cubes and 4D Visualizations of Atmospheric and Radiative Effects (A) Dr. Steven Fiorino, AFIT/ENP

16:20 - Comparison between Wave Optics and Scaling Law Models for Coherent Laser Arrays (A) Jack McCrae, AFIT/ENP

16:40 - A Comparison between a Parametric Performance Model and Detailed Modelling of Propagation through Turbulence (A) Simon Woods, QinetiQ Ltd

17:00 - Dstl LDEW Trials Data and Modelling (C) Sobit Thapa, DSTL