ATNS 2025

ADVANCED TECHNOLOGY FOR NATIONAL SECURITY WORKSHOP

4–5 NOVEMBER 2025

4 November: Advanced Imaging Technology and Systems

- Emerging Surveillance Concepts
- Search and Acquisition
- Classification and Coordination

Keynote: Government Perspective
Ben Conley, NSWC Crane Division

Keynote: EO/IR and Photonics Sensing at AFRL
Emily Heckman, AFRL Sensors Directorate

Keynote: The Defense Innovation Ecosystem
John Griffin, Autonomy Portfolio/Boston Community Lead at DIU

5 November: Advanced Laser Technology and Systems

- Tracking and Targeting
- Directed Energy Systems
- Emerging Laser Technology

Keynote: Military Perspective
Retired U.S. Army General Michael Kurilla, Former Commander, CENTCOM

Note: Attendance is limited to U.S. Citizens with an active DoD security clearance.

This material is based upon work supported by the United States Air Force under Air Force Contract No. FA8702-15-D-0001. Any opinions, findings, conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the United States Air Force.

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AGENDA – DAY 1

ADVANCED IMAGING TECHNOLOGY AND SYSTEMS

TUESDAY, 4 NOVEMBER

Plenary Session

0830 Introduction

0835 Keynote - Government Perspective ..... **Ben Conley,** Senior Scientist and Technology Manager for EO and IR Sensing , NSWC Crane Division

0915 Keynote - EO/IR and Photonics Sensing at AFRL ..... **Emily Heckman,** Photonics Area Lead at AFRL Sensors Directorate

0955 Keynote - The Defense Innovation Ecosystem ..... **John Griffin,** Autonomy Portfolio/Boston Community Lead at DIU

1035 *Break*

Session 2: Emerging Surveillance Concepts

Session Chair: **Serkay Olmez, MIT LL**

1105 Global Persistent ISR ..... **Robert Michniak, Jonathan Leu, and Kyle McNicholas,** MIT LL

1145 Single-Photon Sensitive, Energy-Resolving Superconducting Detectors ..... **Kevin Ryu,** MIT LL

1215 Off-Axis Laser Detection, Geolocation, and Characterization ..... **Erin Tomlinson,** MIT LL

1245 *Lunch*

Session 3: Search and Acquisition

Session Chair: **Mallory Jensen, MIT LL**

1345 Commercial Perspective ..... **Pradip Mitra ,** Leonardo DRS

1415 Astrix ..... **Seth Hunter,** MIT LL

1445 WISP Update - Tactical Wide-Area Scanning IR System ..... **Michael Kelly,** Anduril Imaging

1515 *Break*

Session 4: Classification and Coordination

Session Chair: **Dan Gastler, MIT LL**

1545 Commercial Perspective ..... **Stephen Griggs,** SRI International

1615 Advanced Classification/ID for cUAS Leveraging Passive IR Systems ..... **Vladimir Liberman,** MIT LL

1645 Mid-IR Free Space Optical Communication ..... **Matthew Byrd,** MIT LL

1715 *Workshop Reception*

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ADVANCED TECHNOLOGY FOR NATIONAL SECURITY WORKSHOP 2025

AGENDA – DAY 2

ADVANCED LASER TECHNOLOGY AND SYSTEMS

WEDNESDAY, 5 NOVEMBER

Plenary Session

0850	Introduction	
0900	Keynote - Military Perspectives	**Retired U.S. Army General Michael Kurilla,** Former Commander, CENTCOM
0940	Air Force Perspectives on Directed Energy	**Don Shiffler,** Chief Scientist for Directed Energy, Directed Energy Directorate, AFRL
1010	US Army S&T for Continuous Transformation of DEW Systems	**Neset Akozbek,** Senior Research Scientist, ST, US Army SMDC
1040	DoD Directed Energy Roadmap and Joint S&T Investments	**Wesley Green,** OUSD R+E Directed Energy
1110	*Break*	

Session 2: Tracking and Targeting

Session Chair: **Andrew Benedick, MIT LL**

1140	High-Energy Laser Systems and Their Effects	**Kevin Creedon,** MIT LL
1200	Target Aimpoint Tracking with 3D Imaging LADAR	**John Ogren,** MIT LL
1220	Low-Noise Ge DFPA for Fine Tracking	**Ilya Prigozhin,** MIT LL
1240	*Lunch*	

Session 3: Directed Energy Systems

Session Chair: **Scot Shaw, MIT LL**

1340	S&T to Operational Capabilities – Naval Perspectives on DE Systems	**Matthew Ketner,** ONR
1400	Industry Perspective on Directed Energy Technology	**Dale Martz,** nLight
1420	Industry Perspective on Directed Energy Technology	**Robert Afzal,** Lockheed Martin
1440	DE Deployment Results and Path Forward	**Liam Skoyles,** Raytheon
1500	Directed Energy Survivability	**Sean Keller,** Raytheon
1520	*Break*	

Session 4: Emerging Laser Technology

Session Chair: **Kevin Creedon, MIT LL**

1550	2µm Laser Development	**Brian Anderson,** AFRL/RD
1610	Panelized HEL Technology Development	**Andrew Benedick,** MIT LL
1630	High-Power Supercontinuum Lasers	**Jason Langseth,** MIT LL
1650	*Adjourn*	

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