



DIRECTED ENERGY

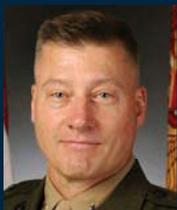
& NEXT GENERATION MUNITIONS

JUNE 20-22TH, 2016
WASHINGTON, D.C.

Technology Applications to Meet Anti-Access/Area Denial Challenges



Leading Expert Speakers



BRIG GEN JULIAN D. ALFORD
Vice Chief of Naval Research
Commander, Marine Corps Warfighting Lab
Office of Naval Research (ONR)



DR. WILLIAM ROPER
Director
Strategic Capabilities Office (SCO)
Office of the Secretary of Defense (OSD)



DR. ROBERT E. PETERKIN
Chief Scientist
Directed Energy Directorate
Air Force Research Laboratory (AFRL)



DR. TIM D. ANDREADIS
Head of the High Power Microwave Section
Tactical Electronic Warfare Division
Naval Research Laboratory (NRL)



DR. KIP KENDRICK
Chief, Directed Energy Division
Space and Missile Defense Technical Center (SMDC)



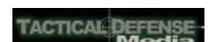
DR. SEAN ROSS
AFRL Directed Energy Liaison
Science, Technology, & Engineering Directorate
SAF/AQR

- Get an in-depth look at operationalizing the Electromagnetic Railgun
- Deep-dive into Next Generation Non-Lethal Directed Energy Systems
- Hear the latest requirements for the Hypervelocity Projectile
- Overview the latest on Indirect Fire Protection Capability

Get an In-Depth Understanding of the Latest Requirements and Technology Gaps from Subject Matter Experts and Military Leadership On:



Media Partners:



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Snapshot of Commands Expected to Attend

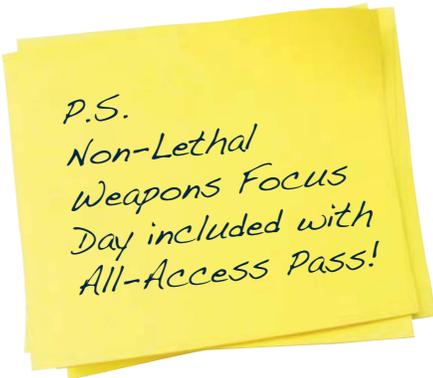
I am pleased to welcome you to **Directed Energy & Next Generation Munitions 2016!** This is an exciting time for Directed Energy! We are at an inflection point in operationalizing directed energy (DE) technology into defense - bringing scalable, cost effective, precision weaponry to the fight. It is no secret that DE and other electric weapons offer significant economies over legacy systems (ie decreased per-shot cost, increased magazine depth) But such systems also offer strategic advantages: allowing our forward deployed elements to maintain sustainable, credible deterrence and combat power. They also offer the prospect of a scalable threat response to deter, disable, or destroy targets as required.

Over the course of our packed three-day summit, we will look closely at advances in directed energy technology, such as in the fields of **non-lethal weapons, solid state lasers, high powered microwaves, as well as electromagnetic railgun technology, hypervelocity projectiles,** and other technology areas of interest in the field of next generation munitions. Join thought-leaders and colleagues from government, academia, and industry as we look at existing and future requirements to put this game-changing technology into the hands of the warfighter.

I'm really excited at the topics we have for this year. We already have a great line-up of distinguished speakers from across the services and research labs, government, academia, and industry, and we have more coming. I hope you can join us as well.

Very Respectfully,

Andrew Hildebrand
Director of Programming
Institute for Defense and Government Advancement



"...excellent access to key individuals and organizations."

Steve C. (Northrop Grumman Corporation)



Naval Sea Systems Command
Directed Energy and Electric Weapons Systems Program
Office (NAVSEA PMS 405)

The Naval Sea Systems Command is comprised of command staff, headquarters directorates, affiliated Program Executive Offices (PEOs) and numerous field activities. They engineer, build, buy and maintain ships, submarines and combat systems that meet the Fleet's current and future operational requirements.



Air Force Research Laboratory (AFRL)

AFRL is a global technical enterprise, boasting some of the best and brightest leaders in the world. We are Revolutionary, Relevant, and Responsive to the Warfighter. We defend America by unleashing the unconquerable power of scientific and technical innovation.



Naval Research Laboratory (NRL)

NRL is the corporate research laboratory for the Navy and Marine Corps and conducts a broad program of scientific research, technology and advanced development. NRL has served the Navy and the nation for 90 years and continues to meet the complex technological challenges of today's world.



Space and Missile Defense Technical Center

USASMD/ARSTRAT conducts space and missile defense operations and provides planning, integration, control and coordination of Army forces and capabilities in support of U.S. Strategic Command missions (strategic deterrence, integrated missile defense, and space operations)



PEO Missiles and Space (PEO M&S)

The role of PEO M&S is to provide overall direction and guidance for the development, acquisition, testing, product improvement and fielding of assigned systems while ensuring total ownership cost reduction, and to diligently work with international partners to support multi-national programs as well as fostering foreign military sales in support of national and army objectives.



MIT Lincoln Laboratory

MIT Lincoln Laboratory is a federally funded research and development center that applies advanced technology to problems of national security. Research and development activities focus on long-term technology development as well as rapid system prototyping and demonstration.



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& NEXT GENERATION MUNITIONS

JUNE 20-22TH, 2016

WASHINGTON, D.C.



Brig Gen Julian Alford, USMC, Vice Chief of Naval Research, **Commander, Marine Corps Warfighting Lab**

Non-Lethal Weapons and the Complex Battlespace

The Marine Corps Warfighting Laboratory/Futures Directorate identifies future challenges and opportunities, develops warfighting concepts, and comprehensively explores options in order to inform the combat development process to meet the challenges of the future operating environment.



Dr. William Roper, Director Strategic Capabilities Office (SCO), **Office of the Secretary of Defense**

Bringing Game-Changing Capabilities to the Battlespace

The Strategic Capabilities Office (SCO) was created to identify, analyze, and accelerate capabilities to counter strategic adversaries and improve the United States posture for engaging future threats. A distributed enterprise amongst Office of Secretary of Defense (OSD), Combatant Commands (COCOMs), and the Intelligence Community (IC), SCO uniquely blends technology and concepts of operations to develop a full spectrum of innovative capabilities.



Dr. Robert E. Peterkin, Chief Scientist Directed Energy Directorate, **Air Force Research Laboratory**

AFRL: Bringing the Speed of Light to the Fight

Dr. Robert E. Peterkin, a member of the scientific and technical cadre of senior executives, is Chief Scientist, Directed Energy Directorate, Air Force Research Laboratory, Kirtland Air Force Base, N.M. With an annual budget of more than \$300 million, the directorate is responsible for all of the Air Force research and development of high energy lasers, high power microwaves and dense plasmas, and advanced optical technologies.

Learn about our Brilliance Bar:

During this break, pre-selected speakers will be arranged in the networking hall to answer any of your questions. Come and pick their brains!

Directed Energy by the numbers



75+
Expert Attendees



5+ Hours
Reserved For Networking



15+ Hours
of Informational Content

How can you meet your marketing and business development objectives at the Directed Energy & Next Generation Munitions event?

NETWORKING

Ensure that you have the opportunity to engage with the key decision makers within your industry. We can create a platform for you to effectively interact with your top customers and prospects in the environment of your choice. This can range from formalized private meetings / workshops right through to less structured networking events such as sponsored drinks receptions, coffee breaks or lunches. Ultimately whatever you decide is the right forum; we will support you in your quest to advance relationships with the key people who can influence the future of your business.

BRANDING

Your company can be elevated to a position where they are seen as a market leader. In a fiercely competitive market you need to ensure that your brand is differentiated from the competition. Failure to create a clear identity will see your organization fade into the background. We ensure that we do everything we can to effectively lift your brand before, during and after the event. Not only do we create a fully integrated marketing campaign, which your company can be part of, but we also offer high impact premium branding opportunities for example on bags, water bottles, pens lanyards etc.

THOUGHT LEADERSHIP

If you think that you should be viewed as a true industry leader then your need to demonstrate your market knowledge and expertise through a thought leadership opportunity, such as speaking or chairing. This is a highly unique opportunity for your company to educate the market, and as long as you are credible enough to fit into a high level event program, we can position your organization alongside top customers and prospects in our speaker faculty. As part of this speaker faculty your company will be set apart from other industry attendees giving you the competitive edge required to make further strides in the market.



JOIN THE CONVERSATION BY CONTACTING:

Chris Ritchie
Sponsorship Director
P: 212-885-2799 • E: sponsorship@idga.org

0800 Registration

0845 Chairperson Welcome and Opening Remarks

0900 WORKSHOP A: Next Generation Non-Lethal Directed Energy Weapons

This workshop gives an overview of Non-Lethal Weapons Activities and Focus Areas, such as the capability to deliver non-lethal, counter-personnel or counter-material capability to quickly repel potential adversaries with minimal risk of injury. This technology has multiple applications including force protection, crowd control, and perimeter defense.

- Research and Applications
- Future Interest Areas
- Next Generation Technology



David Law
Technology Division Chief
Joint Non-Lethal Weapons Directorate

1030 Morning Networking & Refreshment Break

Join other attendees to discuss your thoughts on Non Lethal Directed Energy Weapons

1100 WORKSHOP B: Using RF Spectrum for Counter-Material Non-Lethal Effects

Requirements for a Radio Frequency Vehicle-Stopper (RFVS) system would allow for the maintenance of a safe, non-lethal keep-out zone by using high power microwaves to disrupt vehicle engine's electrical components and cause stalling.

- Countering Material using DE
- RF Dominance
- Spectrum Management

1215 Lunch

Enjoy a catered meal while building lasting relationships with speakers, peers and attendees

1315 KEYNOTE: Non-Lethal Weapons and the Complex Warfare Environment

Winning in today's complex fighting environment requires supporting the operational needs of the U.S. Armed Forces by complementing lethal effects delivered to the enemy with technology capable of disabling combatants or would-be combatants without harming non-combatants and limiting collateral damage.

- Future NL Systems
- Application Priorities
- Tech Areas of Interest



Brig Gen Julian D. Alford, USMC
Vice Chief of Naval Research Commander
Marine Corps Warfighting Lab

1400 Afternoon Refreshment Break

Take a moment to chat with others about your experiences with Directed Energy

1430 WORKSHOP C: Countering Insurgent Attacks While Preventing Civilian Casualties

Today's complex fighting environment often involves insurgents firing indirect munitions from inside highly populated civilian areas. Non-lethal indirect fire weapons, by producing temporary optical and auditory impairment, enable troops to fire back without risking the lives of innocent people.

- COIN Operations and NL Weapons
- Indirect Fire Challenges
- Tech Areas of Interest

1545 Chairperson Closing Remarks

1600 End of Non-Lethal Weapon Systems Focus Day

0800 **Registration & Coffee**

0845 **Chairperson's Welcome and Opening Remarks**

0900 **KEYNOTE: Directed Energy and Countering Anti-Access/Area Denial Challenges**

Maintaining power projection in the coming years will rely on more than just technological overmatch - it will rely on increasing our competitive advantage by developing the means to offset advantages or advances in A2/AD weapons and the proliferation of other advanced technologies.

- Overmatching Future Peer/Near-Peer Adversaries
 - Strategies to Counter A2/AD
 - Leveraging COTS technology
-

0945 **Advances in High Energy Laser Beam Control and Optics**

- Overview of Current HEL Technology
 - Where HEL is Headed
 - Examination of the State of the Art
-

1030 **Morning Networking & Demo Drive**

During our Integrative Demo Drive, each attendee will be placed in a small group and given the opportunity to rotate through our exhibit hall. Join us and discover the best way to meet each of our exclusive sponsors and find out what they can do for you!

1130 **AFRL Vision for DE Systems**

- Opportunities for Industry
- Future Applications and Research
- Importance of C-DES



Dr. Robert E. Peterkin
Chief Scientist, Directed Energy Directorate
Air Force Research Laboratory

1215 **Operationalizing the Electromagnetic Railgun (EMRG) for Multiple Mission Sets**

- Advantages of EMRG systems
- SWAP-C Challenges
- DDG-1000 integration

Session Reserved for **NAVSEA/PMS-405**

1245 **Networking Luncheon**

Enjoy a good lunch and great conversation with your peers about the morning sessions

1345 **Countering Improvised Threats with Directed Energy**

- DES for C-IED applications
 - Future Applications/Requirements
 - Examining the State of the Art
-

1430 **Leveraging Directed Energy for Missile Defense**

- High Energy Laser Mobile Demonstrator
- Requirements of the future force with potential application to the counter unmanned aerial vehicle
- Taking rockets, artillery and mortars missions



Dr. Kip Kendrick
Chief, Directed Energy Division
Space and Missile Defense Technical Center

1515 **Afternoon Networking Break**

Take a moment to reflect on the sessions and exchange ideas with your fellow attendees

1600 **Directed Energy and the Indirect Fire Protection Capability (IFPC) Program**

- Modernizing Missile Defense
- Operating in a Contested Environment
- Counter UAS/Counter Mortar Capability



Mr. Pat Duggan
Project Officer, Cruise Missile Defense Systems
Program Executive Office for Missiles and Space (PRO M&S)
US Army

1645 **Closing Remarks**

1700 **Cocktail Reception**

Enjoy a drink on us and go offline to discuss the day's highlights with speakers and colleagues

"Good overview of future direction." - Lawrence B. (US Army)



0800 **Registration & Coffee**

0845 **Chairperson's Welcome and Opening Remarks**

0900 **KEYNOTE: Smart Weapons to Enable Strategic Capabilities**

- Meeting New Defense Challenges Through Innovation
- SCO Future Requirements
- Smart Munitions



Dr. William Roper
Director, Strategic Capabilities Office (SCO)
Office of the Secretary of Defense

0945 **Leveraging Existing Precision Mmunition Technology**

- Future PM Firing Systems
 - Application Priorities
 - Tech Areas of Interest
-

1030 **Morning Networking Break & Brilliance Bar**

1130 **Power and Thermal Challenges to Directed Energy Systems Integration**

- Research and Applications
- Future Interest Areas
- Next Generation Technology



Dr. Sean Ross
Air Force Research Labs (AFRL) Directed Energy Liaison
Office of the Assistant Secretary of the Air Force, Acquisition Science, Technology, and Engineering Directorate (SAF/AQR)

1215 **Silicon Carbide (SiC) Power Devices for Defense Applications**

- Next-generation power semiconductors
- Research and Applications
- Criticality of Power for DE and Electric Weapons



Prof. Stephen B. Bayne
Professor, Electrical and Computer Engineering
Texas Tech University

1300 **Networking Luncheon**

Enjoy a catered lunch while discussing all of the sessions you have attended

1400 **Delivering an HPRF to the Warfighter**

- Surface Navy Applications
- Challenges of Microwave Systems
- Modeling and Simulation



Dr. Tim D. Andreadis
Head of the High Power Microwave Section,
Tactical Electronic Warfare Division
Naval Research Laboratory

1445 **V4 Countering Improvised Threats with Directed Energy**

- DES and C-IED
 - Future Applications/Requirements
 - Tech Areas of Interest
-

1530 **Next Generation High-Power Microwave Systems**

- Research and Applications
 - Future Interest Areas
 - Next Generation Technology
-

1615 **Closing Remarks**

1630 **End of Conference**

"This event offers the intimacy between audience members and speakers that is often overlooked by large trade shows. Highly Recommend."

- Brian W (US Army)

Pricing & Registration

Active U.S. Government, Military, and Law Enforcement

Package	Standard Price
2 Day Main Conference	NO COST TO ALL MILITARY AND GOVERNMENT EMPLOYEES All Active Federal Employees, to include Military Personnel, will be granted free admission to our event. However, in order to logistically support this event, we must require online pre-registration. Onsite registration will not be permitted and Online Registration will close on 6/17/2016
Workshop Day	

Academia, Non-Profit and Foreign Military

Package	Register & Pay By 04/01/2016	Standard Price
2 Day Main Conference	\$895	\$1,295
3 Day All-Access Pass	\$1,395	\$1,795
Workshop Day		\$595

Vendors, Consultants, and Solution Providers

Package	Register & Pay By 04/01/2016	Standard Price
2 Day Main Conference	\$995	\$1,395
3 Day All-Access Pass	\$1,595	\$1,995
Workshop Day		\$695

Team Discounts

Number of Attendees	Savings
3-4	10%
5 or more	15%

Please note:

- All 'Early Bird' discounts require payment at time of registration and before the cut-off date in order to receive any discount.
- Any discounts offered (including team discounts) must also require payment at the time of registration.
- All discount offers cannot be combined with any other offer.
- Please view our registration policy for full information about payment, cancellation, postponement, substitution and discounts.
- Please note multiple discounts cannot be combined.

A \$99 processing charge will be assessed to all registrations not accompanied by credit card payment at the time of registration.

MAKE CHECKS PAYABLE IN U.S. DOLLARS TO: IDGA

* CT residents or people employed in the state of CT must add 6.35% sales tax.

Team Discounts: For information on team discounts, please contact IQPC Customer Service at 1-800-882-8684. Only one discount may be applied per registrant.

Special Discounts Available: A limited number of discounts are available for the non-profit sector, government organizations and academia. For more information, please contact customer service at 1-800-882-8684.

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Bank Name: JP Morgan Chase & Co.
 Penton Learning Systems LLC dba IQPC: 937332641
 ABA/Routing #: 021000021
 Reference: Please include the name of the attendee(s) and the event number IQPC: 27196.001

Payment Policy: Payment is due in full at the time of registration and includes lunches and refreshment. Your registration will not be confirmed until payment is received and may be subject to cancellation.

For IQPC's Cancellation, Postponement and Substitution Policy, please visit www.iqpc.com/cancellation

Special Dietary Needs: If you have a dietary restriction, please contact Customer Service at 1-800-882-8684 to discuss your specific needs.

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Register Online, by Email, Phone, Fax or Mail

Web: www.distributedlethality.com

Email: idga@idga.org

Phone: 1.800.882.8684

Fax: 646.378.6025, 24 hours a day

Mail: IDGA
 535 5th Avenue, 8th Floor
 New York, NY 10017

Location & Lodging Information



This event will be held in **Washington D.C.** As soon as a specific venue is confirmed we will post the information online. If you would like to be notified via email as soon as the information becomes available please email idga@idga.org with the following subject line: "Directed Energy Venue Request".

Sponsorship and Exhibition Opportunities Still Available!

For more information contact
Chris Ritchie at 212-885-2799 or
sponsorship@idga.org

About IDGA



The Institute for Defense & Government Advancement (IDGA) is a non-partisan information based organization dedicated to the promotion of innovative ideas in public service and defense. We bring together speaker panels comprised of military and government professionals while attracting delegates with decision-making power from military, government and defense industries.