

DEFENSE

Systems Digest

The Latest From the Defense Systems Information Analysis Center // December 7, 2021



[SUBMIT A TECHNICAL INQUIRY](#)

U.S. Army

NOTABLE TECHNICAL INQUIRY

Who are the key players in U.S. Department of Defense (DoD) research efforts in long-range acoustic communications, and what are they doing?

The Defense Systems Information Analysis Center (DSIAC) was asked to identify key players in U.S. Department of Defense research efforts in long-range (500–1,000 m) acoustic messaging. DSIAC searched open-source documents and the Defense Technical Information Center's repository for relevant information, which was compiled into a report and delivered to the inquirer. Key players were organized by government, academia, and industry, followed by a summary of the research being done by each... [READ MORE](#)



SNEAK PEEK

UPCOMING WEBINAR:
*An Overview of the Effectiveness
ToolBox (ETB)*

DATE:
December 16, 2021

TIME:
12:00 PM - 12:45 PM

PRESENTED BY:
Bryan Knott

HOST:
DSIAC



VOICE FROM THE COMMUNITY

David Goorskey

Physicist, Cloud Lake Technology LLC

Dr. Goorskey holds a Ph.D. in microelectronics-photonics from the University of Arkansas and has contributed to the fields of quantum and nonlinear optics, nanotechnology, and directed energy. His work in directed energy concerned improving adaptive optics beam control for mitigating aero-optic turbulence in trans/supersonic airborne imaging and high energy laser (HEL) weapon systems. He is currently pursuing interests in aero-thermal-optics and optical sensing in the hypersonic environment.

BECOME A SUBJECT MATTER EXPERT



HIGHLIGHT

DoD Announces Third Quarter Laboratory Scientist, STEM Advocate, and Technology Transfer Advocate Awards

The Acting Director of Defense Research and Engineering for Research and Technology (DDRE(R&T)) in the Office of the Under Secretary of Defense for Research and Engineering (OUSD(R&E)) is pleased to announce the third quarter fiscal year 2021 winners of the following awards. [LEARN MORE](#)

FEATURED NEWS

Official Says DoD, With Help From Partners, on Cusp of Cutting-Edge Innovations

Artificial intelligence, quantum computing, bioengineering, and other leap-ahead technologies were topics addressed by the Undersecretary of Defense for Research and Engineering.

Heidi Shyu provided keynote remarks today at the virtual Carnegie Mellon University Software Engineering Institute's Research Review 2021.



"The challenges facing our military are both diverse and complex, ranging from sophisticated cyberattacks to supply chain risks to defense against hypersonic missiles to responding to biothreats. To address these challenges, the department must harness the incredible innovation ecosystem, both domestically and globally, in order to stay ahead of our... [READ MORE](#)

Image: U.S. Air Force



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WEBINARS

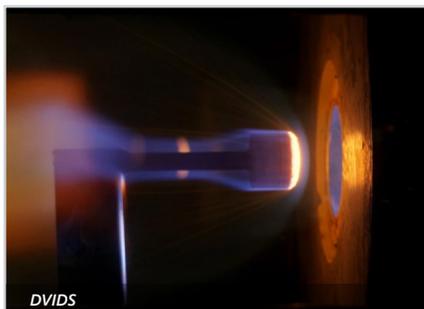
An Overview of the Effectiveness ToolBox (ETB)

Presented: December 16, 2021 12:00 PM - 12:45 PM

Presenter: Bryan Knott

Host: DSIAC

ETB is a weapon effectiveness model developed by the Lethality and Weapons Effectiveness Branch (H32) of the Naval Surface Warfare Center Dahlgren Division (NSWCDD). ETB is a time-based, Monte Carlo simulation in which objects move in a 3-D virtual world and interact using analytical, numerical, and empirical methodologies. ETB allows the user to model scenarios of varying complexity – from a simple target vulnerability analysis involving a single fragment interacting with a target to a highly complex effectiveness analysis involving multiple weapons and multiple targets. ETB uses a graphical toolkit to visualize the underlying calculations of the model. This visualization capability greatly simplifies the setup and understanding of the model results. The graphics toolkit is combined with various methodologies for modeling target vulnerability and weapons effectiveness. **LEARN MORE**



DVIDS

Materials Selection for High-Temperature System; Condensed Phase Foundation

January 19, 2022
12:00-12:45 PM

EVENTS

Defense Manufacturing Conference (DMC)

December 13-16, 2021

The 68th Annual Reliability and Maintainability Symposium

January 24-27, 2022

2022 Personnel Recovery (PR) Modernization

February 7-11, 2022

Military Standard 810 (MIL-STD-810) Testing Open Course (NTS Fullerton, CA)

February 14-17, 2022

Fundamentals of Random Vibration and Shock Testing Open Course (Westpak San Jose)

April 5-7, 2022

Military Standard 810 (MIL-STD-810) Testing Open Course (NTS Tempe, AZ)

May 16-19, 2022

Military Standard 810 (MIL-STD-810) Testing Open Course (Cincinnati Sub-Zero Cincinnati, OH)

June 13-16, 2022

Want your event listed here?

Email contact@dsiac.org, to share your event.

-  Advanced Materials
-  Autonomous Systems
-  C4ISR
-  Directed Energy
-  Energetics
-  Military Sensing
-  Non-Lethal Weapons
-  RMQSI
-  Survivability & Vulnerability
-  Weapons Systems

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RECENT NEWS



U.S. Department of Defense

F-15Es Take Part in Weapons Evaluations, Enhance Readiness

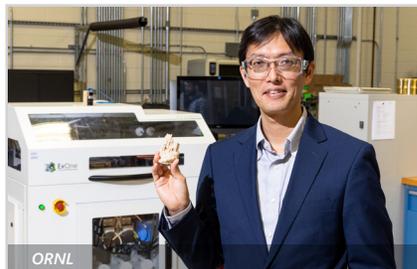
RMQSI; Weapons Systems



U.S. Department of Defense

AFRL's Drone Killer, THOR Wins Popular Science "Best of" Award

Autonomous Systems;
Directed Energy



ORNL

Polymer Discovery Gives 3D-Printed Sand Super Strength

Advanced Materials



U.S. Army

"Can't Miss" Tactical Assault Kit Event

C4ISR



U.S. Army

AMCOM Commander Outlines Vision for Predictive Maintenance to Industry Partners

Weapons Systems



U.S. Army

Project Convergence: Linking Modernization Efforts Across Joint Domains

RMQSI

