

DEFENSE

Systems Digest

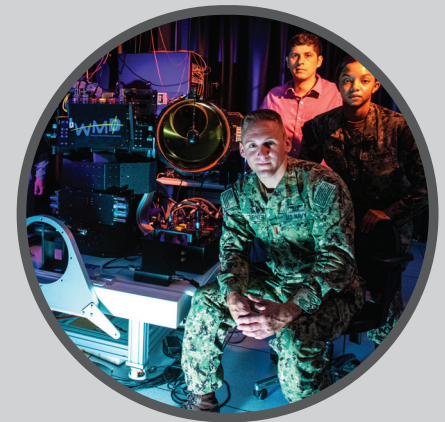
The Latest From the Defense Systems Information Analysis Center // October 4, 2022



NOTABLE TECHNICAL INQUIRY

Are there pathfinder tools to compute evasion paths for friendly assets threatened by hostile laser or radio frequency DEW systems? What software algorithms can calculate environmental effects and exploit their limitations?

The Defense Systems Information Analysis Center (DSIAC) was asked if there are viable pathfinder tools that can compute optimized evasion paths for friendly mobile air, ground, and sea under threat by hostile laser or radio frequency (RF), directed energy weapons (DEW) systems. The inquirer also wanted to know if there are any software algorithms that can calculate environmental effects (e.g., terrain, man-made structures, foliage, atmospheric attenuation, and distance) and determine... [LEARN MORE](#)



SNEAK PEEK

UPCOMING WEBINAR:
Artificial Intelligence for Weapons Systems

DATE:
October 13, 2022

TIME:
12:00 PM

PRESENTED BY:
Sam Chakour

HOST:
DSIAC



VOICE FROM THE COMMUNITY

Taylor H. Knight

Research Analyst

Taylor H. Knight is a research analyst at the Defense Systems Information Analysis Center (DSIAC). She provides technical research services to answer defense-related inquiries submitted by the U.S. Department of Defense science and technology community. Prior to working for DSIAC, she worked in education for 10 years, with a focus in the science, technology, engineering, and mathematics (STEM) disciplines.

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DIRECTED ENERGY FUTURES 2060

Visions for the next 40 years of U.S. Department of Defense Directed Energy technologies

DTIC

HIGHLIGHT

2022 Directed Energy & Non-Lethal Weapons

Don't miss the opportunity to meet with the U.S. Department of Defense's science and technology (S&T) experts in directed energy and non-lethal weapons technologies.

During the week of 5-9 December 2022, the Directed Energy and Non-Lethal Weapons (DE & NLW) Communities of Interest (CoIs) teams are staging their Independent Research & Development (IR&D) Technology Interchange Meetings (TIMs). [READ ONLINE](#)

FEATURED NEWS

General Says Air Force Modernization Is Priority

U.S. Air Force Chief of Staff Gen. Charles Q. Brown Jr. spoke today at the State of Defense conference on DefenseOne.com.

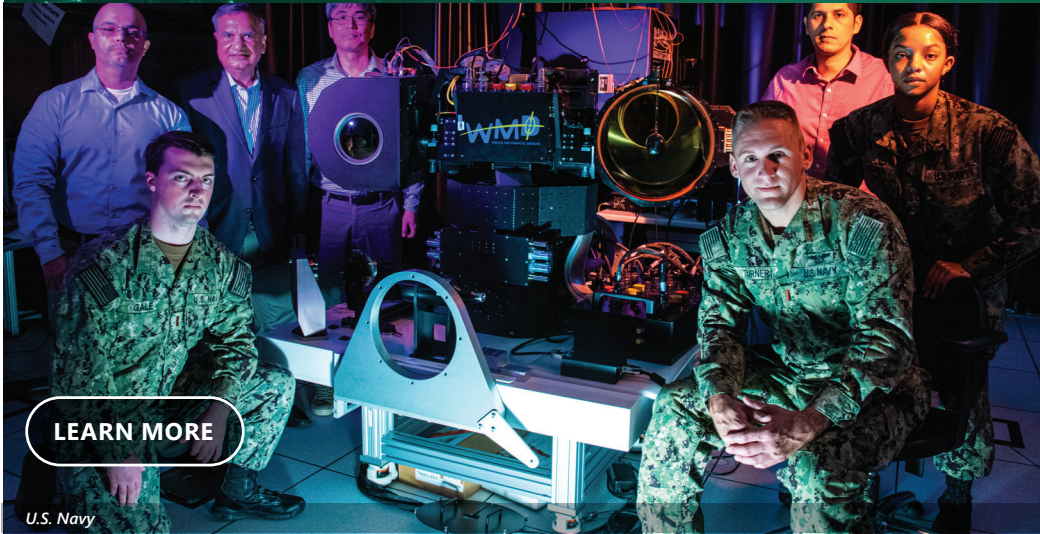
Regarding hypersonic threats from adversaries, Brown said, "We want to make sure we have not only that capability, but the capacity.

There's a balance between having a hypersonic capability, but it's all the other munitions that we would also have [that]

ensure our portfolio because what I want to make sure that we have is a full complement of capability to go against the threats that we know about today." [READ MORE](#)



Image: U.S. Air Force



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U.S. Navy

WEBINARS

Artificial Intelligence for Weapons Systems

Presented: October 13, 2022 12:00 PM

Presenter: Sam Chakour

Host: DSIAC

Artificial intelligence (AI) applied to weapons systems represents a major trend in research in the past 10 years. These initiatives seek to increase weapon accuracy, perform nonactive means of targeting, aid navigation and guidance and control (e.g., in Global Positioning System-denied situations), and reduce overall computational resources vs. traditional physics-based approaches to enable intelligent targeting on smaller, more affordable weapons systems. This research also includes extending the battlespace of operators to unmanned aerial vehicles and teaming with manned and unmanned platforms using swarming methods. **LEARN MORE**

EVENTS

Directed Energy Symposium

October 5–6, 2022

Military Standard 810 (MIL-STD-810) Testing Open Course (NTS Boxborough, MA)

October 17–20, 2022

2022 Aircraft Survivability Symposium

November 1–3, 2022

Fundamentals of Random Vibration and Shock Testing Open Course (WESTPAK, Inc., San Diego, CA)

February 28–March 2, 2023

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-  Weapons Systems

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U.S. Army

Directed Energy Weapon System Points Toward the Future of Warfare

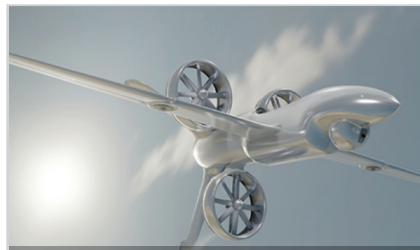
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Navy Price Fighters Develop Additive Manufacturing Cost, Time Model

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DARPA

DARPA Seeks Leap-Ahead Capabilities for Vertical Takeoff and Landing X-Plane

DARPA



DVIDS

“Accelerate Change or Lose”: Applying Brown’s Action Order to Modernize Aircraft GPS

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AFRL’s QUICKSINK Weapon Demo

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