

DEFENSE

Systems Digest

The Latest From the Defense Systems Information Analysis Center // October 25, 2022

**UPDATE — DSIAC STATE-OF-THE-ART REPORT (SOAR) NOW PUBLISHED:
“Artificial Intelligence (AI) for Weapons Systems”**



NOTABLE TECHNICAL INQUIRY

What are the latest developments on signature management technologies for reducing visible, infrared (IR), and thermal signatures?

DSIAC subject matter experts performed a search of the open literature to locate new research pertaining to visible, infrared, and thermal signature management. The search focused on developments since 2018, when a previous summary was provided. Areas covered include manipulation of emissivity; reflectivity; adsorption; refraction and backscatter using multispectral... [READ MORE](#)



SNEAK PEEK

UPCOMING WEBINAR:
Multi-Degree-of-Freedom Blast Effects Simulator

DATE:
November 9, 2022

TIME:
12:00 PM

PRESENTED BY:
Robert Kargus

HOST:
DSIAC



VOICE FROM THE COMMUNITY

Kristopher Lasko

*Geospatial Research Laboratory,
Engineer Research and Development
Center, U.S. Army Corps of Engineers*

Dr. Lasko conducts remote sensing and GIS research with machine learning, focusing on automation of land cover-type mapping using satellite imagery and creating custom ArcGIS Pro toolboxes to enable DoD end-users to leverage automated workflows. His previous work includes radar data fusion for improved mapping under cloudy conditions, wildland fire characterization, and cropland mapping. He has published 20+ peer-reviewed journal articles on a range of remote sensing and environmental science topics. Dr. Lasko completed his Ph.D. on modeling improved agricultural fire emissions, with extensive fieldwork in Vietnam.

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HIGHLIGHT

Artificial Intelligence (AI) for Weapons Systems

DSIAC is pleased to announce publication of our latest state-of-the-art report (SOAR) on artificial intelligence (AI) for weapons systems. [LEARN MORE](#)

FEATURED NEWS

Tactical High-speed Offensive Ramjet for Extended Range (THOR-ER) Team Completes Ramjet Vehicle Test

The THOR-ER program team, a collaborative effort between the United States and Norway to develop a solid fuel ramjet (SFRJ) vehicle, achieved an important milestone on August 17 at Andøya in northern Norway. The test vehicle successfully fired several times, showing the viability of ramjet propulsion technology and demonstrating significant increases in effective range.



“The United States needs to be working closely with our allies to ensure our joint force has the most cutting-edge capabilities on the battlefield,” said Heidi Shyu, Under Secretary of Defense for Research and Engineering. “I commend the THOR-ER team on their outstanding work weathering the pandemic environment, continuing the development of this significant propulsion technology, and promoting continued science... [READ MORE](#)

Image: U.S. Department of Defense



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WEBINARS

Multi-Degree-of-Freedom Blast Effects Simulator

Presented: November 9, 2022 12:00 PM

Presenter: Robert Kargus

Host: DSIAC

Improvised explosive devices have complex, intense, and injurious effects on seated occupants of ground vehicles. Testing these effects is important for the development and assessment of innovative safety designs that will improve survivability. However, generating laboratory tests that adequately simulate realistic blast/shock responses is a difficult task. **LEARN MORE**



NAVAIR

Cost-Effective Verification, Validation, and Accreditation (VV&A) in the Systems Engineering Process: Focusing V&V on A

December 7, 2022 12:00 PM

EVENTS

2022 Aircraft Survivability Symposium

November 1–3, 2022



Image: U.S. Marines

Military Vehicle Systems Summit

November 30–December 1, 2022



Image: U.S. Marines

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

February 28–March 2, 2023



Image: Equipment Reliability Institute

Want your event listed here?

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

DID YOU MISS OUR LAST WEBINAR?

"X-Ray Computed Technology as a Reverse Engineering Tool"

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-  Survivability & Vulnerability
-  Weapons Systems

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U.S. Air Force

Air Force Introduces New, Foundational Ready Airman Training Program

U.S. Air Force



U.S. Army

New Short-Range Reconnaissance Capability Begins Fielding to Soldiers

U.S. Army



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Air Force's Mobility Flex Procurement Releases eVTOL Request for Information

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U.S. Department of Energy

Deep Learning Makes X-Ray CT Inspection of 3-D-Printed Parts Faster, More Accurate

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On-the-Move Network to Increase Armored Formation Survivability, Lethality

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Engineers Develop a New Kind of Shape-Memory Material

Massachusetts Institute of Technology

