

# DEFENSE Systems Digest

The Latest From the Defense Systems Information Analysis Center // October 3, 2023

## LAST CALL FOR JOURNAL ARTICLES!

After a long absence, the DSIAC Journal is returning! We are now accepting abstracts for our first issue and need your help!

This issue will be a general edition covering any of DSIAC's 10 focus areas.

### WHAT TO INCLUDE IN ABSTRACT:

- 200 words
- All authors
- Prospective title
- Highlighted focus area(s)
- Your organization

### ARTICLE DEADLINE:

October 16, 2023

### SUBMIT IDEAS/ABSTRACT:

[journal@dsiac.org](mailto:journal@dsiac.org)

To view previous DSIAC journals, visit <https://dsiac.org/journals>.

## DID YOU MISS OUR LAST WEBINAR?

"Integration of Shipborne Additively Manufacturing Systems Onto Naval Vessels and the Naval Supply Chain Impacts"

 WATCH NOW!

[or download the slides](#)

## ACTIVE TECHNICAL INQUIRY

### How can the U.S. Department of Defense (DoD) define a unified process for source approval requests (SARs)?

The Defense Systems Information Analysis Center (DSIAC) is seeking solutions for defining a unified process for the submission, evaluation, and acceptance criteria for source approval requests (SARs) across all DoD services and agencies. The desired solution would identify... [READ MORE](#)

## UPCOMING WEBINAR



### Emerging Applications of Machine Learning and Predictive Analytics...

October 4, 2023  
12:00 PM – 1:00 PM

**Presenter:** Zhenhua Jiang

**Host:** DSIAC

This webinar will present several emerging applications of artificial intelligence and machine learning (ML) in naval energy autonomy and digital transformation and summarize relevant research and development efforts carried out by the University of Dayton Research Institute (UDRI) in a contract with... [READ MORE](#)

## FUTURE WEBINARS

### DMSMS and Additive Manufacturing

November 8, 2023  
12:00 PM – 1:00 PM

### Multiscale Study of Hypersonic Vehicles: From Turbulence...

December 13, 2023  
12:00 PM – 1:00 PM



USD(R&E)

## HIGHLIGHT

### National Defense Science & Technology Strategy 2023

The U.S. Department of Defense (DoD) released the unclassified version of the National Defense Science and Technology Strategy, or NDSTS. Guided by the National Defense Strategy, the NDSTS articulates the science and technology priorities, goals, and investments of the Department and makes recommendations on the future of the defense research and engineering enterprise.

“To achieve the objectives of the NDS, we must leverage critical emerging technologies,” said Heidi Shyu, DoD Chief Technology Officer. “This Strategy helps us make carefully crafted decisions that bolster our comparative advantages rather than engaging in wasteful technology races. [LEARN MORE](#)

## EVENTS

### Hypersonic Technology & Systems Conference (HTSC)

October 16–19, 2023

North Logan, UT

### Fundamentals of Random Vibration and Shock Testing Training (NTS Silicon Valley, CA)

November 7–9, 2023

NTS Silicon Valley, CA

### Military Standard 810 (MIL-STD-810) Test Training (NTS Huntsville, AL)

December 4–7, 2023

NTS Huntsville, AL

### Want your event listed here?

Email [contact@dsiac.org](mailto:contact@dsiac.org) to share your event.



## VOICE FROM THE COMMUNITY

### Dallas Rosson, PMP

*Principal Engineer, Naval Undersea Warfare Center Keyport*

Dallas Rosson serves as a principal engineer responsible for engineering oversight, process and policy planning and management, digital transformations, Agile Scrum oversight and training, and project management for various Navy programs. He performs and oversees research utilizing machine learning and artificial intelligence, focusing in logistics, supply chain risk, obsolescence predictions, and diminishing manufacturing sources and material shortages impacts. He is a board member of the Naval Engineering Education Consortium and doctoral fellow at Colorado State University.

## ARE YOU A SME?

If you are a contributing member of the information systems community and are willing to help others with your expertise, you are a subject matter expert (SME)!

Join our team today!

**BECOME A SUBJECT MATTER EXPERT**

## ABOUT TECHNICAL INQUIRIES (TIs)

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### WHAT IS THE TI RESEARCH SERVICE?

- FREE service conducted by technical analysts
- 4 hours of information research
- Response in 10 business days or less

### WHO CAN SUBMIT A TI?

- U.S. government (federal, state, or local)
- Military personnel
- Contractors working on a government or military contract

### WHY UTILIZE THE TI RESEARCH SERVICE?

- Get a head start on your technical questions or studies
- Discover hard-to-find information
- Find and connect with other subject matter experts in the field
- Reduce redundancy of efforts across the government

To submit a TI, go to  
<https://dsiac.org/technical-inquiries>

## FOR MORE: FOLLOW US ON SOCIAL!

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## RECENT DSIAC TIs

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- What is the process to submit engine data sheets to JANNAF's Liquid Rocket Engine Database?
- What publications and information are available on passive ranging, to include monocular passive ranging?
- Are there methods or templates to produce conceptual models for MBSE tools?

## RECENT CSIAC & HDIAC TIs

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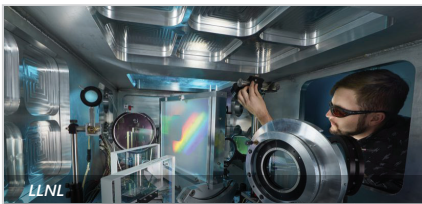
- Can you provide information on sensor fusion research (e.g., radars and sensors) using ML or AI methods, regardless of military application?
- How can you identify the underlying framework used in AI/ML models and extract the binary?
- What technical documents discuss using AI for detecting the proliferation/counterproliferation of WMD materials?

## FEATURED NEWS

### DoD Will Deploy AI-Enabled Detection System to Monitor D.C. Airspace

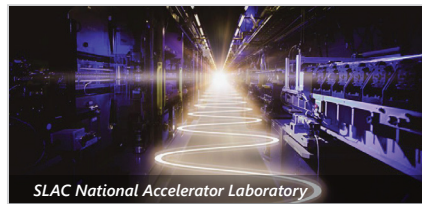
An artificial intelligence-powered airspace monitoring system is set to be installed to enhance protection of the nation's capital with the potential to scale across other Defense Department and U.S. government... [READ MORE](#)

## RECENT NEWS



**LLNL's Jupiter Laser Facility Funding Renewed for Additional Research in Discovery Science**

Lawrence Livermore National Laboratory



**SLAC Fires Up the World's Most Powerful X-ray Laser: LCLS-II Ushers in a New Era of Science**

Fermilab



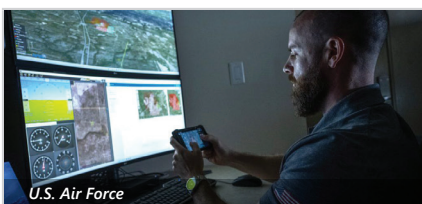
**Researchers Use AI to Find New Magnetic Materials Without Critical Elements**

Ames National Laboratory



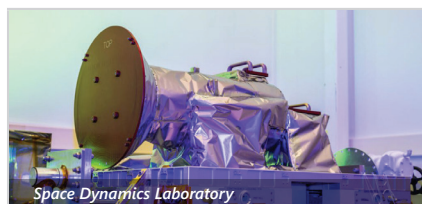
**AI-Enabled Air Vehicle Accomplishes Tactical Testing**

Air Force Research Laboratory



**Partnership Agreement Furthers Safety of Advanced Aircraft Mobility in Low-Altitude...**

Air Force Research Laboratory



**NASA's Atmospheric Waves Experiment Completes Space Environment Tests**

NASA



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

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