DEFENSE Systems Digest

The Latest From the Defense Systems Information Analysis Center // August 22, 2023

ACTIVE TECHNICAL INQUIRY (ATI)

What are the solutions for performing state estimation of an autonomous airplane operating over the ocean across all lighting and cloud cover conditions?

The Defense Systems Information Analysis Center (DSIAC) is seeking solutions for reliably performing state estimation of an autonomousairplane operating over the open ocean across all lighting and cloud cover conditions. Solutions must be at TRL6... **READ MORE**

DID YOU MISS OUR LAST WEBINAR?

"A Materials Science Perspective on Space Propulsion Technology"

WATCH NOW!

or download the slides

NOTABLE TECHNICAL INQUIRY

Can you provide a summary of current space-related research and capabilities in China?

The Defense Systems Information Analysis Center (DSIAC) was asked to investigate China's satellite industry. Key questions addressed include the current number of Chinese satellites in Earth orbit, the technical specifications of China's military and civilian satellites, China's satellite... **READ MORE**

UPCOMING WEBINAR

USAF Non-Lethal Weapons Program: A Primer for Defense Professionals De-escalating Geopolitical Tensions...

August 23, 2023 12:00 PM – 1:00 PM

Presenter: *Aaron Hodges* ***Host:*** *DSIAC*

This webinar provides insight into the U.S. Air Force's (USAF's) non-lethal weapons program. It consists of two parts. The first part is a primer on non-lethal weapons (NLWs)/intermediate force capabilities (IFCs), and the second part focuses on peer-to-peer and near-peer conflict and the use of... **READ MORE**

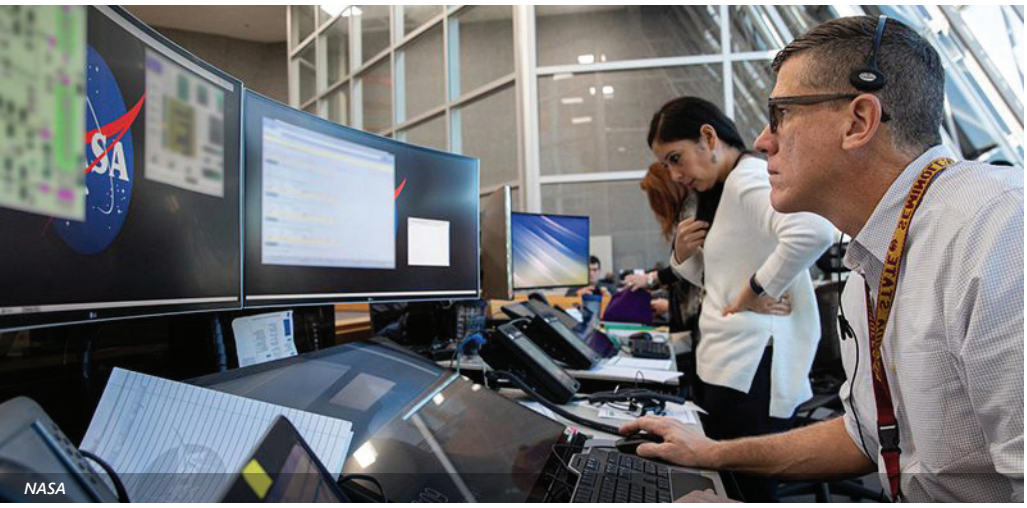
FUTURE WEBINARS

Integration of Shipborne Additively Manufacturing Systems Onto Naval Vessels...

September 20, 2023 12:00 PM – 1:00 PM

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

October 4, 2023 12:00 PM – 1:00 PM



NASA

HIGHLIGHT

NASA's Software Catalog

Each year, NASA scientists, engineers, and developers create software packages to manage space missions, test spacecraft, and analyze the petabytes of data produced by agency research satellites. As the agency innovates for the benefit of humanity, many of these programs are now downloadable and free of charge through NASA's Software Catalog. **LEARN MORE**

EVENTS

The Aircraft Airworthiness & Sustainment Conference
August 28–31, 2023
San Antonio, TX

FY23 JAS Program Review (JPR)
September 19–21, 2023
San Diego, CA

Fuze/FFC/Demil Conference & Exhibition
September 25–28, 2023
Huntsville, AL

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, to share your event.

VOICE FROM THE COMMUNITY

Dr. Jean-Charles Stinville
Assistant Professor, University of Illinois at Urbana-Champaign

Dr. Stinville is an assistant professor at the Materials Science and Engineering Department of the University of Illinois, where he researches mechanical properties and damage processes of metallic materials under severe environmental conditions related to defense, transportation, and energy sectors. His team focuses on developing and characterizing metallic materials and leveraging high throughput/resolution techniques. His work covers cryogenic to extremely high-temperature material behavior, primarily focusing on additive manufacturing, steels, superalloys, and high-entropy alloys.

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)

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)
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- Contractors working on a government or military contract

WHY UTILIZE THE TI RESEARCH SERVICE?

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- Discover hard-to-find information
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To submit a TI, go to https://dsiac.org/technical-inquiries

FOR MORE: FOLLOW US ON SOCIAL!

U.S. Army

RECENT DSIAC TIs

- What gaps are there between civilian and U.S. Department of Defense (DoD) aerospace for determining airworthiness of additively manufactured (AM) parts and repairs?
- What facilities exist for testing high-temperature hypersonics?
- Are there viable pathfinder tools to compute optimized evasion paths for friendly assets under threat by hostile laser or radio frequency DEW systems? What software algorithms can calculate environmental effects and exploit DEW system or sensor limitations?

RECENT CSIAC & HDIAC TIs

- What is the current state of the art in microelectronics and its impact on the DoD?
- How can the smart city concept be applied to military bases, and what security concerns would need to be assessed?
- Can you research and provide publicly releasable microreactor power information geared toward supporting U.S. military efforts that have dual-use capabilities?

FEATURED NEWS

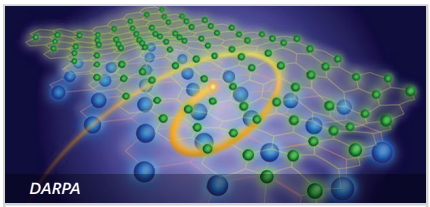
U.S. Strategic Command Stands up Joint EMS Operations Center

U.S. Strategic Command officially stood up the Joint Electromagnetic Spectrum (EMS) Operations Center (JEC) during a ceremony at USSTRATCOM Headquarters on Offutt Air Force Base, July 26, 2023. **READ MORE**

RECENT NEWS

DARPA Kicks Off Design, Fabrication for DRACO Experimental NTR Vehicle

DARPA



Embarking on Quest for New Quantum Materials

DARPA

76th CMXG Starts Sand Casting Aluminum Parts

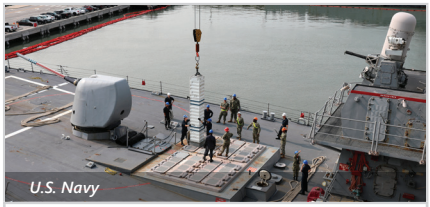
U.S. Air Force

What Do You Do With a Shrunken Laser?

Sandia National Laboratories

AFRL Artificial Intelligence Agents Successfully Pilot XQ-58A Valkyrie Uncrewed Jet Aircraft

U.S. Air Force Research Laboratory



USS Porter, USNS William McLean Perform Vertical Launch System Re-Arm Demonstration

U.S. Navy

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

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