

# DEFENSE

## Systems Digest

The Latest From the Defense Systems Information Analysis Center // April 19, 2022



SUBMIT A TECHNICAL INQUIRY

U.S. Army

## NOTABLE TECHNICAL INQUIRY

**What are U.S. Department of Defense-approved alternatives to hexavalent chromium in aerospace coatings for use on government/military aircraft (aluminum) and/or ground support equipment (steel)?**

The Defense Systems Information Analysis Center (DSIAC) received a technical inquiry about approved hexavalent chromium (hexavalent chrome or Cr(VI)) replacements for U.S. Department of Defense (DoD) applications. DSIAC subject matter experts from the Texas Research Institute Austin performed a study and identified several works that provide lengthy discussions about the available options. In addition, we... [READ MORE](#)



## SNEAK PEEK

### UPCOMING WEBINAR:

*Autonomous Research Systems*

### DATE:

May 18, 2022

### TIME:

12:00 PM - 12:45 PM

### PRESENTED BY:

Dr. Benji Maruyama

### HOST:

DSIAC



## VOICE FROM THE COMMUNITY

**Scott S. Haraburda, Ph.D., PE, PMP**

*Director, Activity Support Crane Army Ammunition Activity (CAAA)*

Scott Haraburda leads a team of professionals supporting the U.S. Army's conventional munitions manufacturing and storage site in southern Indiana. His directorate provides CAAA with quality assurance, data analytics, and a variety of other support services. Prior to CAAA, he taught chemistry at West Point, supported the Army Science Board, and worked on a chemical demilitarization project. Dr. Haraburda is a retired Army colonel, a project management professional, and a licensed professional engineer in Michigan and Indiana.

**BECOME A SUBJECT MATTER EXPERT**



## HIGHLIGHT

### Special Operations Force Vision and Strategy

The civilian and military leaders of America's special operations forces have combined to issue the new Special Operations Forces Vision and Strategy to guide the force into the future. [LEARN MORE](#)

## FEATURED NEWS

### Novel, Breakthrough Warfighting Capabilities Discussed by DoD Officials

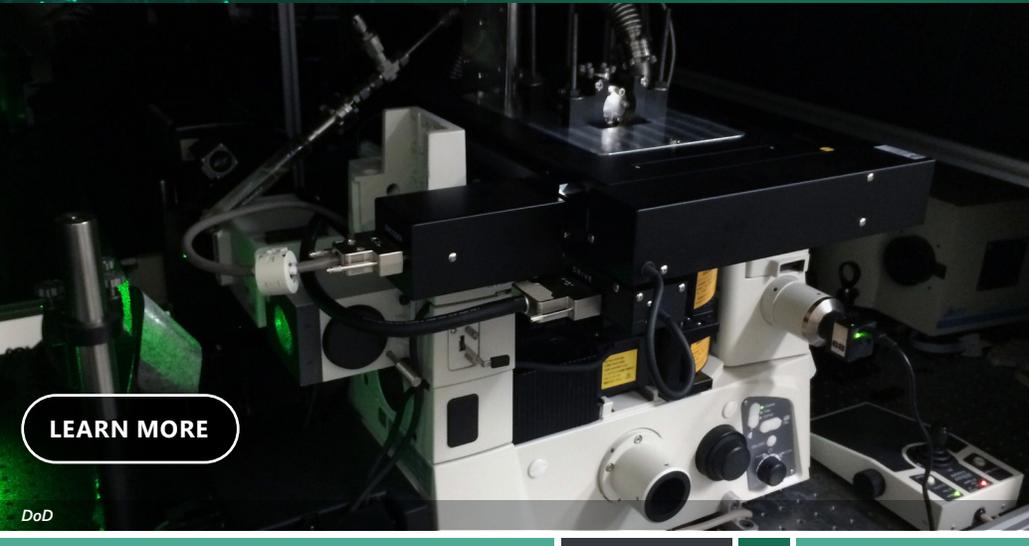
Defense Department officials yesterday described current and future game-changing warfare capabilities that will ensure national security for the United States, allies, and partners.



The venue for the discussion was testimony at a Senate Armed Services Subcommittee on Emerging Threats and Capabilities hearing.

The Defense Innovation Unit successfully prototyped synthetic aperture radar satellites, which can see through clouds and at night. These satellites provided the world with imagery of Russian forces in and around Ukraine, enabling the Department to predict the invasion and prove undeniably what was happening without revealing classified sources, said Michael Brown, DIU Director. [READ MORE](#)

*Image: U.S. Marine Corps*



[LEARN MORE](#)

## WEBINARS

### Autonomous Research Systems

*Presented: May 18, 2022 12:00 PM - 12:45 PM*

*Presenter: Dr. Benji Maruyama*

*Host: DSIAC*

The current materials research process is slow and expensive, taking decades from invention to commercialization. The U.S. Air Force Research Laboratory pioneered ARES, the first autonomous research system for materials development. Researchers are now exploiting advances in artificial intelligence (AI) and autonomy and robotics, along with modeling and simulation, to create research robots capable of doing iterative experimentation orders of magnitude faster than today. We will discuss concepts and advances in autonomous experimentation in general and associated hardware, software, and autonomous methods. [LEARN MORE](#)



**HDIAC: Contactless: The Next Generation of Fingerprint Capture Technology**

April 27, 2022 12:00 PM



**CSIAC: Explainable, Do-It-Yourself Artificial Intelligence Supporting the U.S. DoD and the Intelligence Community**

April 20, 2022 12:00 PM

## EVENTS

### Military Space Disruptive Technology

April 25-26, 2022

### 22nd Annual Science & Engineering Technology (S&ET) Conference

April 26-28, 2022

### Hypersonic Innovation Conference

April 26-28, 2022

### 2022 Joint Combat Assessment Team (JCAT) Threat Weapons & Effects (TWE) Training

May 3-5, 2022

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

May 16-19, 2022

### Warfighter Systems Summit

June 8-9, 2022

### Want your event listed here?

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

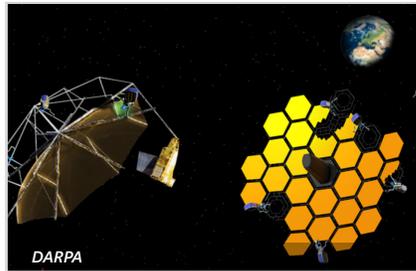
-  Advanced Materials
-  Autonomous Systems
-  C4ISR
-  Directed Energy
-  Energetics
-  Military Sensing
-  Non-Lethal Weapons
-  RMQSI
-  Survivability & Vulnerability
-  Weapons Systems

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## RECENT NEWS



DARPA

**DARPA Kicks Off Program to Explore Space-Based Manufacturing**

Advanced Materials



Shutterstock

**Jam-Resistant Waveform for Safer Battlefield Communications to Get First In-Space Test**

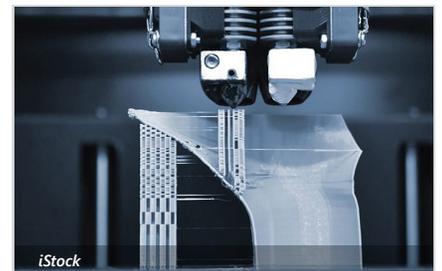
C4ISR



U.S. Army

**MOSA Expedites Army Modernization Efforts at Aviation & Missile Center**

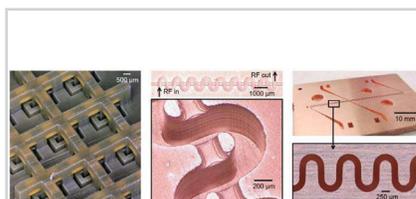
Autonomous Systems;  
RMQSI



iStock

**New Micro-3D Printing Technique Could Benefit Pentagon**

Advanced Materials



NRL

**NRL Electronic Science and Technology Division Leading the Wave of Crucial DoD Electronic Technological Advances**

Autonomous Systems



U.S. Army

**Soldier Lethality Team Reimagines Movement, Vision, and Combat Capabilities**

Autonomous Systems