

# DEFENSE

## Systems Digest

The Latest From the Defense Systems Information Analysis Center // September 13, 2022

[SUBMIT A TECHNICAL INQUIRY](#)

NASA

## NOTABLE TECHNICAL INQUIRY

**Can natural rubber or hydrogenated natural rubber be used as a solid rocket motor binder, and what is the state of use/research in foreign academic journals and/or U.S. historical weapons systems?**

DSIAC staff connected the inquirer with a subject matter expert who performed a literature search and provided a report and bibliography as a final result. The publications include information on the use of natural rubber as a propellant binder, aging of natural rubber for tires, and useful aging data on normalized strain ratio at the break vs. shifted log of reduced time.

[LEARN MORE](#)



## SNEAK PEEK

**UPCOMING WEBINAR:**  
*Artificial Intelligence for Weapons Systems*

**DATE:**  
October 13, 2022

**TIME:**  
12:00 PM

**PRESENTED BY:**  
Sam Chakpur

**HOST:**  
DSIAC



## VOICE FROM THE COMMUNITY

### Wes Fulton

*Founder and CEO of Fulton Findings (TM)*

Wes Fulton, the founder and CEO of Fulton Findings, has over 25 years of programming experience as a private programmer. He worked 16 years as an aircraft actuation systems program engineer for AiResearch, where he maneuvered fly-by-wire flight controls and was responsible for the Taiwanese Indigenous Defensive Fighter leading edge flap actuation system (LEFAS), the Rockwell/MBB X-31A experimental aircraft LEFAS flight testing, and deployment support for General Dynamics' F-16 Fighting Falcon LEFAS. He copatented a high-performance drive-train device called the "multi-fuseable shaft" and developed the first widely used Weibull engineering software called "WeibullSMITH," which he transitioned into widely adopted software for variability modeling and statistics.

**BECOME A SUBJECT MATTER EXPERT**



U.S. Air Force

## HIGHLIGHT

### 2022 Fall Issue Release of the Aircraft Survivability Journal

DSIAC is pleased to announce the release of the 2022 fall issue of the Aircraft Survivability Journal. The journal is intended to provide an ongoing opportunity for aircraft survivability practitioners to share ideas, recognize accomplishments, and coordinate efforts across our common areas of interest. It's also a real-time reflection of the remarkable ingenuity, dedication, and professionalism of our aircraft survivability community.

[READ ONLINE](#)

## FEATURED NEWS

### DOD Must Field Capabilities Faster, Hicks Says

In the face of the pacing challenge from China and threats from Russia, Iran, North Korea and extremist groups, the Defense Department must transition from experimentation and prototyping to fielding capabilities much more quickly, Deputy Defense Secretary Kathleen H. Hicks said.



Hicks provided virtual keynote remarks today for the Defense Advanced Research Projects Agency's "Forward Conference: Advancing the Horizons of National Security," held at Colorado State University. [READ MORE](#)

Image: U.S. Air Force



## WEBINARS

### Artificial Intelligence for Weapons Systems

*Presented:* October 13, 2022 12:00 PM

*Presenter:* Sam Chakpur

*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, 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](#)

## DID YOU MISS OUR LAST WEBINAR?

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

[WATCH NOW!](#)

[or download the slides](#)

## EVENTS

### Fundamentals of Random Vibration and Shock Testing Open Course (NTS Longmont, CO)

September 13–15, 2022

### Air, Space & Cyber Conference

September 19–21, 2022

### Military Tactical Communications Summit

September 21–22, 2022

### AUVSI Defense

September 22, 2022

### Future Armored Vehicles Survivability USA

September 26–27, 2022

### Defense TechConnect











September 27–29, 2022

### FY22 JAS Program Review (JPR)

September 27–29, 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

**No Manning Required Ship (NOMARS) Program to Build, Test, Demonstrate First Ship**

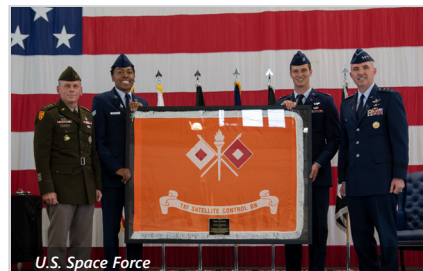
U.S. Army



Ames Laboratory

**Solid-State Processing: New Paths to New Materials**

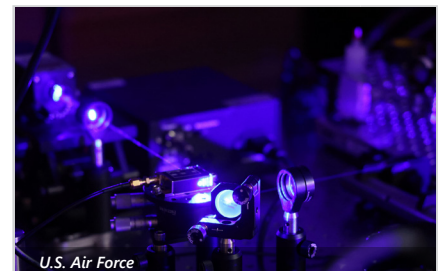
U.S. Army



U.S. Space Force

**Army Transfers Satellite Communications Mission to USSF: All Military SATCOM Under One Service for First Time**

U.S. Space Force



U.S. Air Force

**AFRL Experiments With Heat Flow To Manipulate Quantum Materials**

U.S. Air Force



U.S. Army

**1-7 Cav Support Army Senior Leaders With Robotic Vehicles' Decision-Making**

U.S. Army



DVIDS

**Welcome to the Future: U.S. Navy Destroyers Are Getting Lasers**

U.S. Army

