

Defense Systems DIGEST

12 FEBRUARY 2019 – THE LATEST FROM DEFENSE SYSTEMS INFORMATION ANALYSIS CENTER



NOTABLE TECHNICAL INQUIRY

How can historical “lessons learned” from nuclear acquisition and certification efforts help mitigate new program acquisition pitfalls and avoid cost/time overrun?

DSIAC staff contacted multiple government historical research agencies and nuclear departments to assist in collecting information on the subject. Related areas of interest included dual capable aircraft, intercontinental... [Read More](#)

► **SUBMIT YOUR TECHNICAL INQUIRY – 4 hours of research service for FREE**

FEATURED NEWS



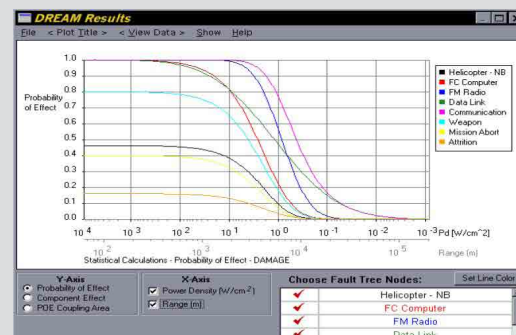
DoD Official Describes Missile Defense Strategy

James H. Anderson, the Assistant Secretary of Defense for strategy, plans, and capabilities, spoke about the 2019 Missile Defense Review at the Brookings Institution in Washington, 29 January. He noted that the strategy covers the Defense Department’s three lines of effort: lethality, partnership, and reform. Here are his main points: 1. The Threat – China and Russia are developing advanced cruise missiles and hypersonic weapons that can potentially overcome United States defenses. North Korea has tested intercontinental ballistic missiles that are capable of reaching the U.S. and could be armed with... [Read More](#)

MODEL OF THE MONTH

DREAM – DREAM simulates the interaction between a High-Power Radio Frequency/Microwave Directed Energy Weapon (HPM DEW) and a target system. The interface calculates/estimates a target’s probability of electronic upset and/or damage as a function of the HPM DEW power density on target and range. DREAM is primarily used for making pre-test predictions and investigating the HPM DEW concepts.

Get this model!



VOICE FROM THE COMMUNITY



Larry Bowden, P.E., *Emerging Technology Analyst, Chevron*

I am an Emerging Technology Analyst at Chevron. I work to improve efficiency and profitability through research and the implementation of disruptive technologies. I've designed cognitive models enhanced with knowledge graph interfaces, written quantum computing programs using chemical libraries, and developed fiber optic surveillance systems. I have also launched technologies to safely extend service life and increase energy production from declining assets, and implemented numerous systems using AI to assist human decision making throughout the oil and gas vertical.

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UPCOMING EVENTS

Fundamentals of Random Vibration and Shock Class

19 February 2019 to 21 February 2019

**Military Sensing Symposium (MSS) 2019
Parallel Conference**

25 February 2019 to 28 February 2019

Amazing Grace – Defense Innovation Event

26 February 2019 to 27 February 2019

Additive Manufacturing (AM) for Aerospace and Space

26 February 2019 to 28 February 2019

▶ Want your event listed here? Let us know!

BULLETIN BOARD

Journal of DoD Research and Engineering: Special Issue

DHS S&T Escape Respirator Challenge

Journal of American Helicopter Society

▶ Add your item to our board by contacting us.

DSIAC JOURNAL WINTER 2019



Active Electronically Steered Array (AESA) Antenna Testing

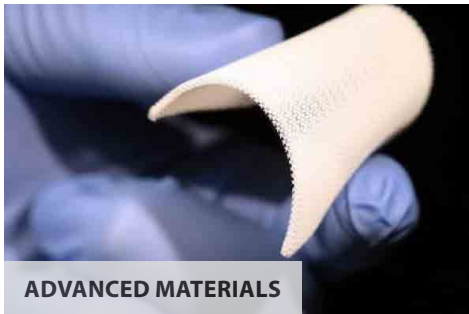
Also in This Issue:

- American "Astrologistics"
- Measuring Combustion Products in Small Arms Blowback Gases
- Modular Human Surrogate for Non-Lethal Weapons (NLW) Testing



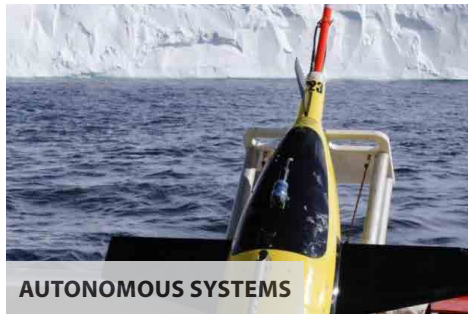
▶ Have an idea for a topic? Please contact us to write an article!

RECENT NEWS



ADVANCED MATERIALS

Virginia Tech Engineers Develop New 3D Printing Method for Piezoelectric Materials



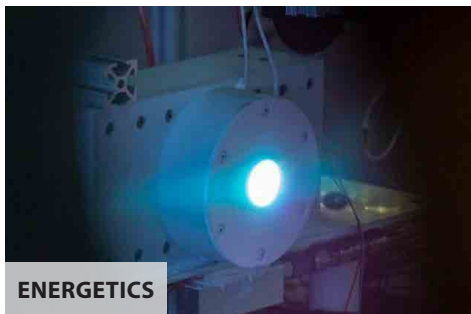
AUTONOMOUS SYSTEMS

What a Research Mission Reveals About an Autonomous Future



DIRECTED ENERGY

U.S. 704th Test Group Successfully Leads Directed Energy Experimentation Campaign



ENERGETICS

Amid 2020 Satellite Launch Targets, Capella Space Selects Phase Four for Maxwell On-Orbit Propulsion System



MILITARY SENSING

NASA Scientists Choose Harris Precision Optics to Build WFIRST Space Optical Imaging Telescope



NON-LETHAL WEAPONS

Laser Weapon Being Developed by Military Can Send Voice Commands and Burn People Over Long Distances



RMQSI

Pentagon Reinforces Mandate for Electronics Design Open-Systems Standards Like SOSA, FACE, and VICTORY



SURVIVABILITY AND VULNERABILITY

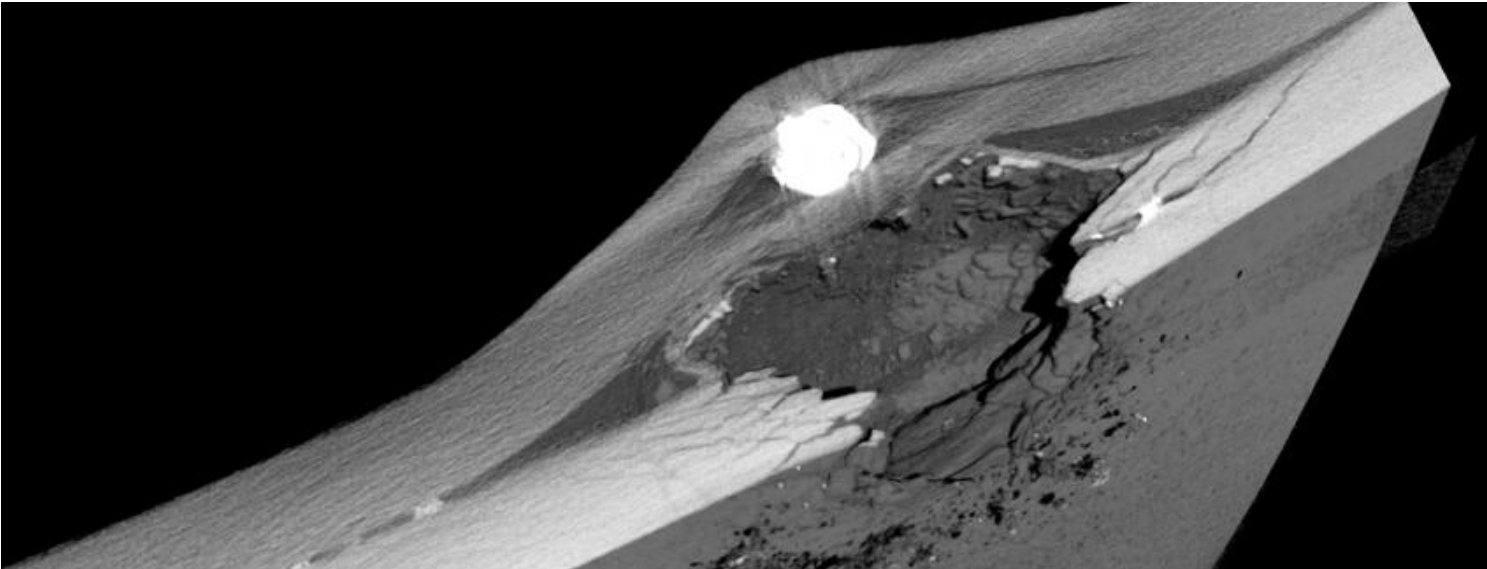
Army Snipers Played Hide-And-Seek to Test New Camouflaged Ghillie Suits for Next-Level Combat



WEAPON SYSTEMS

Proposed Army 1,000-Mile Supergun Could Be Ultimate Standoff Weapon

WEBINAR: X-RAY COMPUTED TOMOGRAPHY SCANNING FOR DEFENSE APPLICATIONS



Join us for a live webinar presentation on “X-Ray Computed Tomography Scanning for Defense Applications.”

Wednesday, 27 February 2019 – 12:00 p.m. to 12:45 p.m. EST

X-ray computed tomography (XCT) scanning has been used for decades and remains a key component in nondestructive testing (NDT). XCT allows a user to create a three-dimensional (3-D) representation of a scanned object within a computer software program and highly detailed output files for future use and manipulation. XCT has evolved over recent years for research and development, reverse engineering, manufacturing and quality control, and life-cycle management. For defense applications, XCT has been very useful in supporting ballistic test and evaluation, armor design and testing, parts inspection, reverse engineering, and evaluating additively manufactured parts. [Read More](#)

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