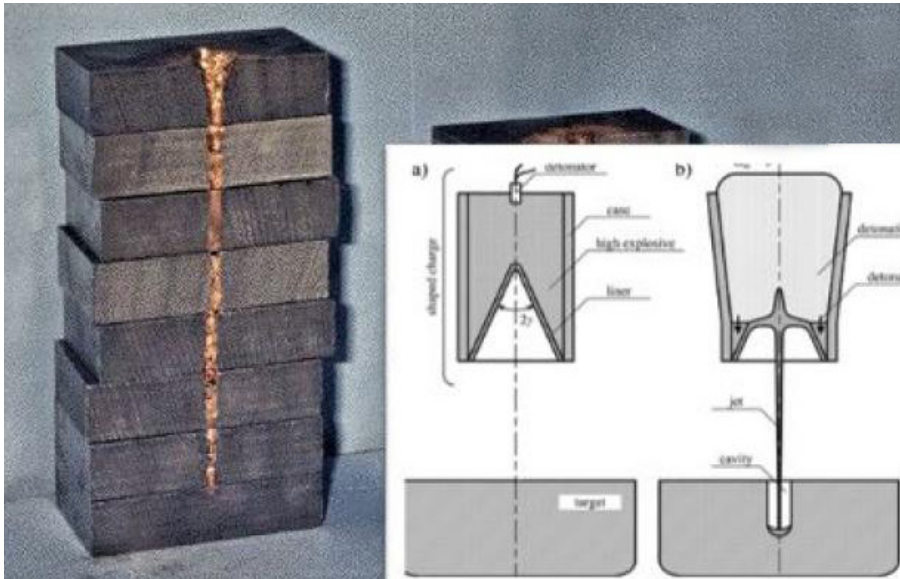


Defense Systems

DIGEST

30 JANUARY 2018 – THE LATEST FROM DEFENSE SYSTEMS INFORMATION ANALYSIS CENTER



NOTABLE TECHNICAL INQUIRY

The Air Force Life Cycle Management Center contacted DSIAC to identify recommended test standards and procedures for conducting armor penetration testing of shaped charge warheads into rolled homogeneous armor (RHA) steel blocks. DSIAC conducted a literature search on DTIC's R&E Gateway to identify two of the most-up-to-date International Test Operations... [Read More](#)

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

FEATURED NEWS



SURVIVABILITY AND VULNERABILITY

The Ethics of Using Brain Implants to Upgrade Yourself

Neurotechnology is one of the hottest areas of engineering, and the technological achievements sound miraculous: Paralyzed people have controlled robotic limbs and computer cursors with their brains, while blind people are receiving eye implants that send signals to their brains' visual centers. Researchers are figuring out how to make better implantable devices and scalp electrodes to record brain signals or to send electricity into the brain to change the way it functions.

While many of these systems are intended to help people with serious disabilities or illnesses, there's growing interest in using... [Read More](#)

MODEL OF THE MONTH

AJEM – The Advanced Joint Effectiveness Model, or AJEM, is a survivability, lethality, and vulnerability (SLV) computer simulation code capable of analyzing one or more threats attacking a one or more rotary-wing or fixed-wing aircraft, small watercraft, ground-mobile system, and mounted or dis-mounted personnel.

[Get this model!](#)



VOICE FROM THE COMMUNITY



Dr. Jennifer Hasler,
Georgia Institute of Technology, Integrated Computational Electronics Laboratory (ICE)

Our research focuses on topics in physical computing — computing using physical quantities with the possibility of one continuous variable. This includes analog/digital computation, neuromorphic computing, and other approaches (e.g., quantum) which demonstrate 1000x factor improvement in computational energy efficiency.

One of the most exciting efforts I’m working on is on building a unified framework for physical computing showing the wider computational capabilities of these techniques compared with digital computation.

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UPCOMING EVENTS

2018 High Temple Workshop

January 29, 2018 to February 1, 2018

2nd Military Additive Manufacturing Summit

February 1, 2018 to February 2, 2018

20th Annual Directed Energy Science and Technology Symposium

February 26, 2018 to March 2, 2018

Pacific Operational Science & Technology Conference

March 5, 2018 to March 9, 2018

▶ Want your event listed here? Let us know!

BULLETIN BOARD

Want to Know About Meltdown and Spectre?

2018 Aircraft Survivability Short Course

Building More Survivable Defense Systems and More Effective Weapons: A Short Course on LFT&E

Reliability, Maintainability and Risk (Ninth Edition): Practical Methods for Engineers

▶ Add your item to our board by contacting us.

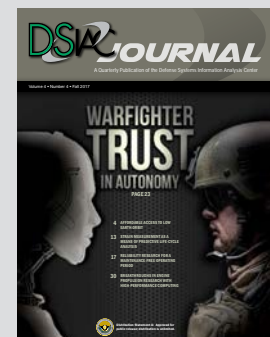
DSIAC JOURNAL FALL 2017



Affordable Access to Low Earth Orbit

Also in this issue:

- Warfighter Trust In Autonomy
- Strain Measurement as a Means of Predictive Life-Cycle Analysis
- Reliability Research for a Maintenance-Free Operation Period
- Breakthroughs in Engine Propulsion Research with High-Performance Computing



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

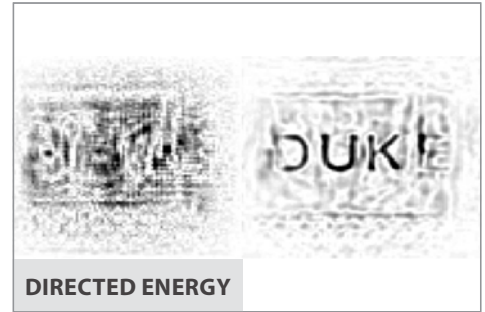
RECENT NEWS



New Ceramic Nanofiber 'Sponges' for Flexible Insulation, Water Purification



Student Teams Compete in Service Academies Swarm Challenge



Seeing Through Walls of Unknown Materials



Inexpensive and Stable – the Salt Water Battery



DARPA Eyes Networks of Intelligent Floats to Provide Persistent Wide-Area Ocean Sensor Coverage



Meet USAF's Most Widely Spread Cyber Weapon System



NATO Nations Testing Equipment Interoperability



Scientists Discover Process to Transition Two-Layer Graphene into Diamond-Hard Material on Impact



Army Brings Back Stinger Missile in Face of Russian Aggression

NEWLY AVAILABLE STI

The Thermal Decomposition Characteristics Of Explosives

Advanced Materials

Technical Data Package For The Rq-21a Aircraft For Operating Limitations In The Naval Air Training And Operating Procedures Standardization (natops) Technical Publication

Autonomous Systems

1.3 μm Submilliamp Threshold Quantum Dot Micro-Lasers on Si

Directed Energy

Characterization of Destex and Composition B (with D-2 Wax) Explosives

Energetics

Atropos Optical Fire Detector (OFD) Dry Bay Analysis Tool Demonstration

Military Sensing

2017 Strike Challenge Summary Report of the Event

Non-Lethal Weapons

PATRIOT Missile Material Handling Equipment (MHE) Lifting Sling Analysis

RMQSI

An Open-Source GPU-Accelerated Vulnerability/ Lethality Analysis Framework

Survivability and Vulnerability

Small Arms Threat Characterization

Weapons Systems

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