

Defense Systems

DIGEST

22 MAY 2018 – THE LATEST FROM DEFENSE SYSTEMS INFORMATION ANALYSIS CENTER



NOTABLE TECHNICAL INQUIRY

How efficient is Dahlgren Decon/Decon Green as a decontaminant against chemical, biological, and radioactive particles and how does it compare to DF200?

DSIAC was asked to compile all available research on Dahlgren Decon/Decon Green testing and efficacy against chemical, biological, and radioactive particles to determine the possibility of replacing the currently used... [Read More](#)

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

FEATURED NEWS



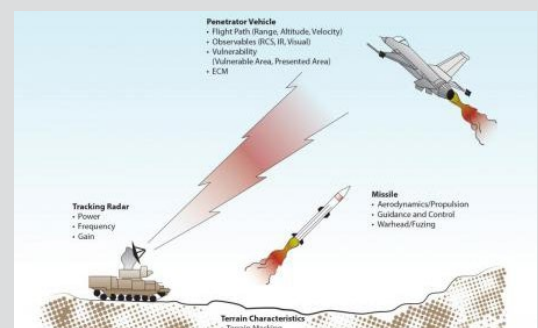
Facebook Takes Flight – Inside the Test Flight of Facebook's First Internet Drone

At 2AM, in the dark morning hours, Mark Zuckerberg woke up and got on a plane. He was traveling to an aviation testing facility in Yuma, AZ, to meet a small Facebook group that had been working on a secret project named Aquila. On this day, Aquila would have its first functional test flight. If the drone could harvest most of its power from the sun, Zuckerberg reasoned, it could fly for 90 days. If it could be built cheaply enough, they would one day dot the skies to become a critical piece of the global internet infrastructure using a laser communications system to deliver high-speed internet access around the world. [Read More](#)

MODEL OF THE MONTH

ESAMS – Enhanced Surface-to-Air Missile Simulation (ESAMS) is a computer program used to model the interaction between an airborne target and a surface-to-air Missile (SAM) air defense system. Detailed data have been abstracted from intelligence information and incorporated into the model to provide comprehensive representation of radio frequency (RF) land-based and naval-based SAM systems.

[Get this model!](#)



VOICE FROM THE COMMUNITY



Timothy Fowler, *DOD Information Analysis Center (IAC), USSTRATCOM Field S&T Advisor*

My 25-year Naval career spans everything from the Cold War to deployment in Afghanistan supporting Operation Enduring Freedom and finally retiring as a Commander at U.S. Strategic Command (USSTRATCOM). This experience, along with defense industry experience, is leveraged to facilitate engagement between STRATCOM research, development, test, and evaluation (RDT&E) groups; our warfighters; and various National/DoD laboratories, University Accredited Research Centers (UARCs), academia, and industry. I focus on building relationships that foster the identification of technology subject matter expertise and crossflow of scientific and technical information. One of the things I enjoy most is supporting technology/innovation events and military exercises to gather information on emerging threats, technologies, and products that produce solutions which protect our warfighters and help them successfully complete their missions.

► Apply to be part of our network of over 1,000 subject matter experts.

UPCOMING EVENTS

Gordon Research Seminar – Energetic Materials

2 June 2018 to 3 June 2018

Gordon Research Conference – Energetic Materials

3 June 2018 to 8 June 2018

2018 JASP Model Users Meeting (JMUM)

12 June 2018 to 14 June 2018

Robotics and Autonomous Systems Summit

25 June 2018 to 27 June 2018

► Want your event listed here? Let us know!

BULLETIN BOARD

AJEM Version 2.53 Is Now Available

Defense Acquisition University Blog on DSIAC

Want to Become a DSIAC Subject Matter Expert and Help Our Warfighters?

Already a DSIAC SME – Share Your Voice with the Defense Community

► Add your item to our board by contacting us.

DSIAC JOURNAL WINTER 2018



A New Design for a Better Bunker Buster

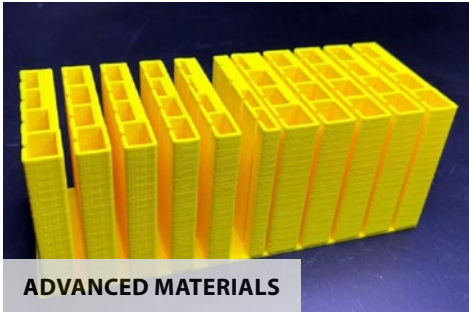
Also in this issue:

- Soft Coatings for Armor Enhancement
- 3-D-Printed Weapons: Challenges and Opportunities in Advanced Manufacturing
- Underbody Blast Methodology: A Modular Approach to Simulating Buried Blast Effects



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

RECENT NEWS



ADVANCED MATERIALS

Thin Engineered Material Perfectly Redirects and Reflects Sound



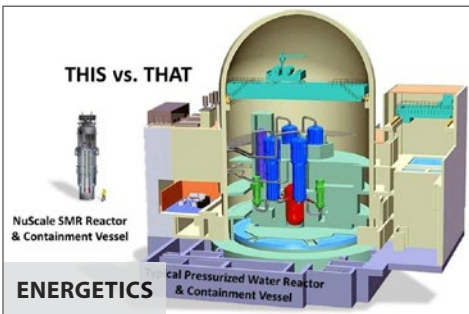
AUTONOMOUS SYSTEMS

Future Plans Emerge for Navy's Triton Surveillance Drones



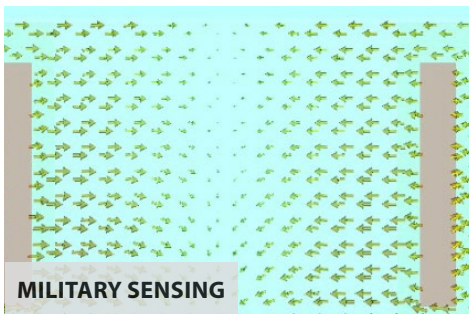
DIRECTED ENERGY

New Navy Multi-Function Ship-Fired Laser Attacks Drones, Conducts ISR



ENERGETICS

NuScale Power's Small Modular Nuclear Reactor Becomes First Ever to Complete NRC's Phase 1 Review



MILITARY SENSING

Optically Tunable Microwave Antennas for 5G Applications



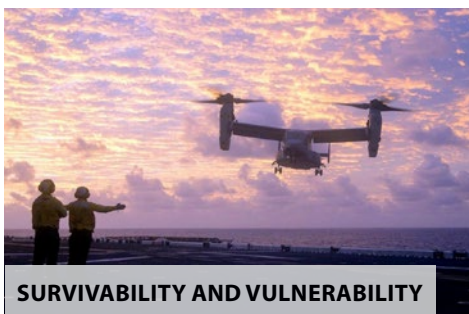
NON-LETHAL WEAPONS

Meet the Company Trying to Break the Taser Monopoly



RMQSI

Air Force Collaboration Could Increase Use of Composites in Aerospace Manufacturing



SURVIVABILITY AND VULNERABILITY

Lack of Aircraft Emergency Escape Training Ended in Tragedy in Australia MV-22 Crash



WEAPON SYSTEMS

New Russian Defense Systems Debut During Victory Day Parade

NEWLY AVAILABLE STI

Documents only available through DTIC to registered users.

Anticorrosion Carbon Nanotubepolytetrafluoroethylene Composite Film On The Stainless Steel Bipolar Plate Used For Proton Exchange Membrane Fuel Cells

Distro. A

Auxetic Behavior Under Electrical Loads In An Induced Ferroelectric Phase

Distro. A

Bioinspired Leaves-on-branchlet Hybrid Carbon Nanostructure For Supercapacitors

Distro. A

Can An Electric Field Induce An Antiferroelectric Phase Out Of A Ferroelectric Phase

Distro. A

Cation, Dipole, And Spin Order In Pb(fe2/3w1/3)o3-based Magnetolectric Multiferroic Compounds

Distro. A

Cobalt-base Ferromagnetic Shape Memory Alloys

Distro. A

Coherent Solid/Liquid Interface With Stress Relaxation In A Phase-field Approach To The Melting/ Solidification Transition

Distro. A

Do It Yourself Hyperspectral Imager For Handheld To Airborne Operations

Distro. A

Creation And Destruction Of Morphotropic Phase Boundaries Through Electrical Poling: A Case Study Of Lead-free (bi1/2na1/2)tio3-batio3piezoelectrics

Distro. A

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