Defense Systems DIGEST

11 SEPTEMBER 2018 – THE LATEST FROM DEFENSE SYSTEMS INFORMATION ANALYSIS CENTER

NOTABLE TECHNICAL INQUIRY

What non-lethal technology exists to engage and thwart a targeted vehicle?

DSIAC was asked to research capabilities that provide the warfighter the ability to accurately engage targeted vehicles at a certain weight and speed in a prescribed distance. Existing systems have limitations due to the operator's close proximity to the threat when engaging a target... Read More

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

FEATURED NEWS

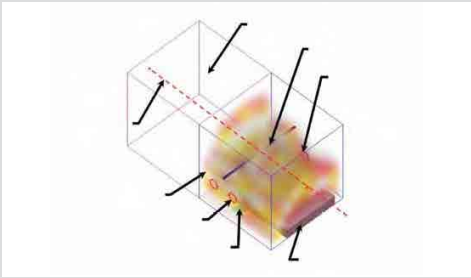
The Future of Military Aviation Isn't Unmanned — at Least for Now

With a rapidly developing military drone industry growing in prominence the world over, and heavyweight defense contractors like Northrop Grumman devoting a large portion of their overall R&D programs to unmanned aerial vehicles, it's easy to see that the future of military aviation will be largely unmanned. The benefits of such a transition are extensive, both economically and ethically, as fewer warfighters are put into harm's way, and aircraft designed to operate without a human on board can forgo all of... **Read More**

MODEL OF THE MONTH

WINFIRE – WINFIRE with the Fire Prediction Model (FPM v3.8.2) integrated simulates events that accompany a single threat penetrating through a vehicle and impacting a container of flammable fluid (e.g., a fuel tank or pressurized line containing fuel or hydraulic fluid). The model predicts whether ignition would occur and continues modeling events through fire growth and spread.

Get this model!



VOICE FROM THE COMMUNITY

Sharon Flank, *Ph.D., Founder and CEO, InfraTrac*

I completed my A.B. studies at Cornell and my Ph.D. studies at Harvard. In 2006, I founded InfraTrac, a company specializing in the development of product protection solutions based on spectroscopy. My areas of expertise include intellectual property protection for additive manufacturing, anti-cointerfeiting, and medication safety. I worked with defense contractor SRA (now CSRA) to spin out its first technologies and create companies acquired by AOL (Navisoft), the Chicago Tribune (Picture Network International), Kodak (eMotion), and CA (Assentor). I have also authored numerous journal articles—including refereed publications on anti-cointerfeiting, artificial intelligence, and 3-D printing—and hold 10 patents.

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

UPCOMING EVENTS

SOFWERX – SOCOM PEO-RW Aviation Maintenance Modernization Capability Assessment Event
4 October 2018 to 5 October 2018

2018 Mechanical Design Reliability Course
16 October 2018 to 18 October 2018

21st Annual Systems Engineering Conference
22 October 2018 to 25 October 2018

HELMOT XVIII – Vertical Lift Transformational Technologies
24 October 2018 to 25 October 2018

▶ **Want your event listed here? Let us know!**

BULLETIN BOARD

It's FREE! DSIAC & SURVICE Engineering are Offering the 2018 Mechanical Design Reliability Course, Student Handbook, and System Reliability Toolkit-V at no Cost to Attendees.

DSIAC SMEs — Let You and Your Organization's Voice Be Heard in the Defense Systems Digest "Voice from the Community" section.

New Infographic — Affordable Access to Low Earth Orbit

Find Out More About the ASD(R&E) DTIC Information Analysis Centers (IACs)

▶ **Add your item to our board by contacting us.**

DSIAC JOURNAL SUMMER 2018

Manufacturing at the Point of Need Using Recycled, Reclaimed, and/or Indigenous Materials

Also in This Issue:

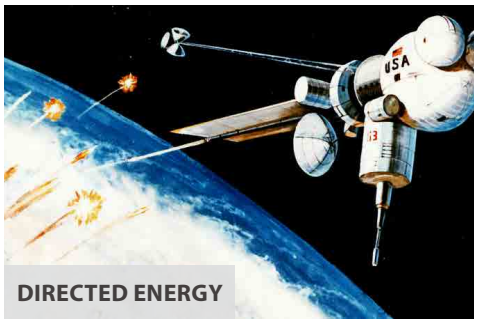
- Characterizing Cyber Intelligence as an All-Source Intelligence Product
- To Use or Not to Use Mobile Robots
- Testing Gas-Turbine Aircraft Engines
- Detecting Bullets Through Electric Fields

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

RECENT NEWS

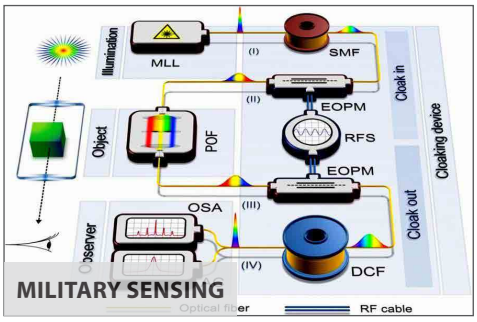
Let It Rain! New Coatings Make Natural Fabrics Waterproof

The U.S. Army's Big Six and the Future of Autonomous Warfare



Space-Based Laser Weapons Could Ultimately Take out Missile Threats in Boost Phase

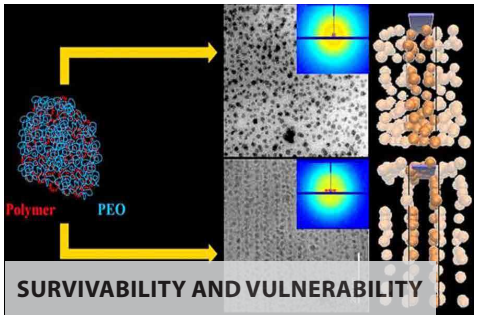
Better, Faster, Stronger: Building Batteries That Don't Go Boom



Spectral Cloaking Could Make Objects Invisible Under Realistic Conditions

Possible Use of Blinding Laser Weapon Near China's Djibouti Base Spurs U.S. Warning to Aviators

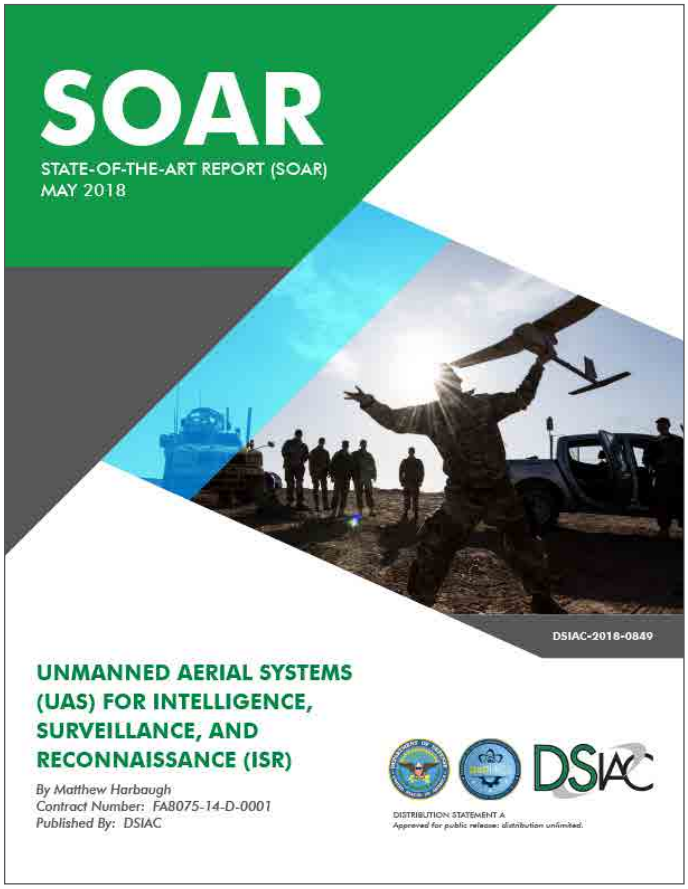
Superior Alloys Could Be Possible, Thanks to Ground-Breaking Research



Oyster Shells Inspire New Method to Make Superstrong, Flexible Polymers

Spike ER2 Missile Doubles the Range of Attack Helicopters

NEW STATE OF THE ART REPORT (SOAR)



Report Date: May, 2018

This report summarizes information about various unmanned aerial systems (UAS) platforms currently used for intelligence, surveillance, and reconnaissance (ISR). The applicability of various UAS platforms and sensor payloads for specific types of missions is discussed, and an overview of the challenges of using UAS for ISR in specific environments is provided. Finally, some of the emerging capabilities of unmanned systems and how these systems may be used for ISR in the future are considered.

Past SOARs:

12/17 | Qualifying Additive Manufacturing Parts

09/17 | Underbody Blast (UBB) Protection for Ground Combat Vehicles

12/16 | Protection for the Homemade Explosive (HME) Researcher: Laboratory Shielding and Personal Protective Equipment

Defense Systems Information Analysis Center
4695 Millennium Drive, Belcamp, MD 21017
Phone: 443-360-4600