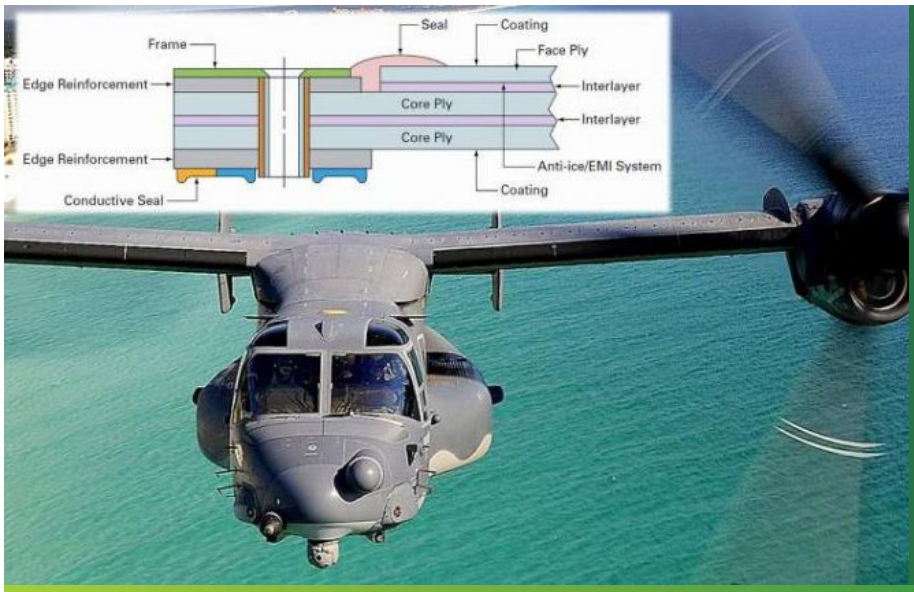
Defense Systems DIGEST

13 FEBRUARY 2018 – THE LATEST FROM DEFENSE SYSTEMS INFORMATION ANALYSIS CENTER



NOTABLE TECHNICAL INQUIRY

DSIAC provided assistance to the Homeland Defense and Security Information Analysis Center (HDIAC) in identifying materials used in military aircraft transparencies (windshields or windscreens, canopies, windows, blast shields, etc.); predominant material differences in transparencies for different classes of aircraft (fighter jets, bombers... Read More

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

FEATURED NEWS

Logistics Battalion Is the Marine Corps' Next Experimental Unit

Thank the Marine Corps' first experimental infantry unit, 3rd Battalion, 5th Marines, for the quadcopters that are coming to grunt squads and a host of high-speed technology that will follow.

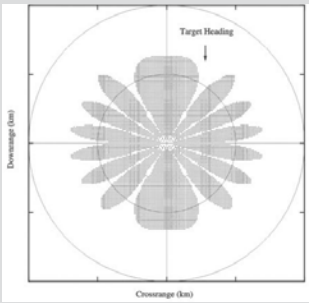
But after two years of experimentation during training exercises and a deployment to the Pacific, 3/5 is standing down — and a logistics unit is on deck to take its place..

During a town hall address to Marines deployed to Bahrain in December, Commandant Gen. Robert Neller announced... **Read More**

MODEL OF THE MONTH

ALARM – The Advanced Low Altitude Radar Model (ALARM) is a digital computer simulation designed to evaluate the performance of a ground-based radar system attempting to detect low-altitude aircraft. The purpose of ALARM is to provide a radar analyst with a simulation tool to evaluate the detection performance of a ground-based radar system against the target of interest in a realistic environment.

Get this model!



VOICE FROM THE COMMUNITY

Christiaan Gribble, PhD
SURVICE Engineering, Advanced Technology Operation

Our research focuses on extracting maximum performance from current and next-generation computing architectures — big-iron supercomputers and clusters to low-power mobile and embedded chipsets. This work includes applications in high performance computer graphics and visualization, physically based simulation and modeling, modern computer vision techniques, and deep learning.

One of the most exciting efforts I'm working on is RckT, a system for fast, accurate, and scalable physics-based spectral rendering. RckT combines state-of-the-art techniques in ray-based rendering and modern high-performance computing to generate physically accurate images of complex environments at interactive rates.

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

UPCOMING EVENTS

20th Annual Directed Energy Science and Technology Symposium
February 26, 2018 to March 2, 2018

29th Annual SO/LIC Symposium & Exhibition
February 28, 2018 to March 2, 2018

Pacific Operational Science & Technology Conference
March 5, 2018 to March 9, 2018

ITEA: 6th Cybersecurity Workshop Call-For-Papers (2018)
March 6, 2018 to March 8, 2018

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

BULLETIN BOARD

National Materials Information System (NAMIS) Database

Aircraft Combat Survivability Self Study Program (SSSP)

The Fundamentals of Aircraft Combat Survivability Analysis and Design, Second Edition

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

DSIAC JOURNAL FALL 2017

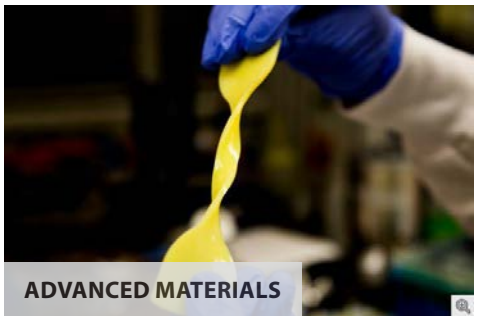
Strain Measurement as a Means of Predictive Life-Cycle Analysis

Also in this issue:

- Warfighter Trust In Autonomy
- Affordable Access to Low Earth Orbit
- Reliability Research for a Maintenance-Free Operation Period
- Breakthroughs in Engine Propulsion Research with High-Performance Computing

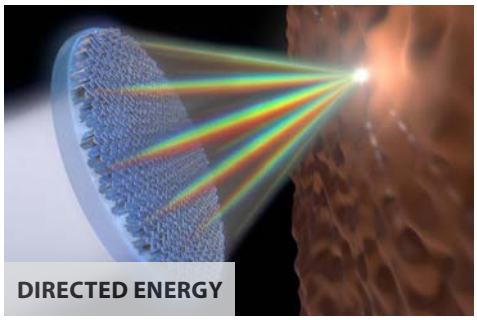
▶ **Have an idea for a topic? Please contact us to write an article!**

RECENT NEWS



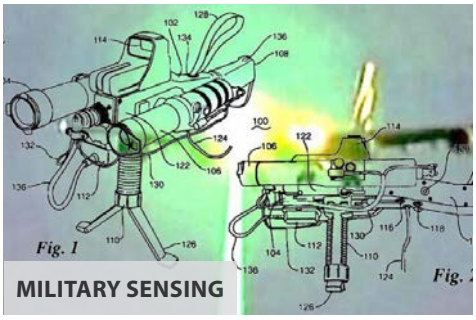
Kevlar-Based Artificial Cartilage Mimics the Magic of the Real Thing

Hydronalix to Develop Gateway Buoy for UUV Control and Communications



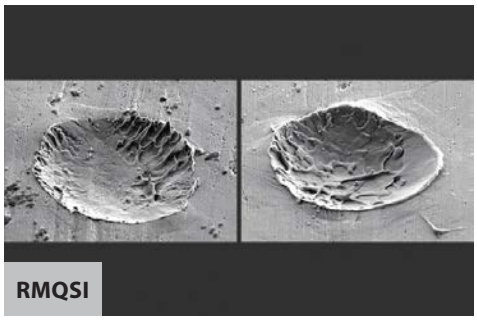
Revolutionary 'Metalens' Can Focus All Visible Light on One Point

Future Zero Emission Hydrogen Boilers Could Heat Your Home

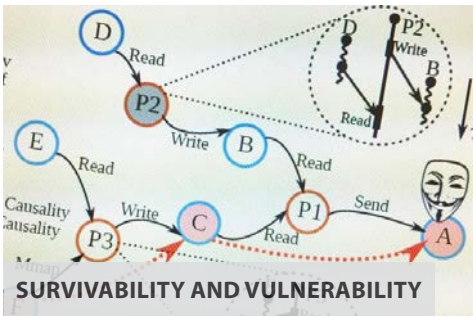


Air Force Patents Laser Sensor Stimulator

General Atomics Capacitors Selected for Non-Lethal Vehicle Stopper



How to Get Sprayed Metal Coatings to Stick



"Instant Replay" for Computer Systems Shows Cyber Attack Details

US Marines Want Pint-Sized Rocket Artillery They Can Carry in an MV-22 Osprey

NEWLY AVAILABLE STI

An Analytical Model for Complete Solute Trapping During Rapid Solidification of Binary Alloys, August 2012
Advanced Materials

Image Processing for Counter-unmanned Aerial Systems (CUAS) Fiscal Year (FY) 2017 Progress And Status, January 2018
Autonomous Systems

Laser Vulnerability Tools Overview, May 2015
Directed Energy

Enabling Energetic Technologies for Rocket Propellants 2017 Annual Report, February 2018
Energetics

Imaging Infrared (IR) Performance Analysis for a Common Fire Control Target Acquisition Sensor Against Air Defense Targets, February 2018
Military Sensing

Development of a Non-Vented Delay Detonator for the M25a2 Riot Hand Grenade, July 1965
Non-Lethal Weapons

Reliability and Dependability of Component-Based Software Through Reuse: An Analytical Study, January 2006
RMQSI

Covart/Vulnerability Toolkit Overview, May 2015
Survivability and Vulnerability

Interior Ballistics of the Impulse Propulsion Gun, August 1951
Weapons Systems

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