

Defense Systems

DIGEST

16 JULY 2019 – THE LATEST FROM DEFENSE SYSTEMS INFORMATION ANALYSIS CENTER



NOTABLE TECHNICAL INQUIRY

What are the latest counter-unmanned aircraft systems (C-UAS) in the U.S. Armed Forces?

DSIAC was asked to compile the latest counter-unmanned aircraft systems (C-UAS) solutions for the U.S. Army, Navy, Air Force, and Marine Corps. DSIAC reached out to C-UAS subject matter experts (SMEs) at the Joint Improvised-Threat Defeat Organization (JIDO) for relevant systems and was given the SIPRNet address for the collected repository of UAS... [Read More](#)

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FEATURED NEWS

The U.S. Navy's Riverines Are Up-Gunned, High Tech, and Ready to Lean Into Great Power Competition

Joint Expeditionary Base Little Creek, VA —
The Mark VI patrol boat bristles with heavy automatic weapons, and that's the way its crews like it.

"I tell the crews that you want to look like a porcupine," said U.S. Navy Senior Chief Derrick Cox, who trains the sailors that man the Mark VI as part of Coastal Riverine Squadron 2's training evaluation unit. "You don't want to kick a porcupine because you know there will be consequences."

The Mark VI is a replacement for the Riverine Command Boat (RCB), which gained notoriety 3 years ago when two of them, along with their crews, were captured by the Iranian Revolutionary Guard when they strayed into Iranian waters near Farsi Island in the Arabian Gulf.

"This has double, maybe even triple, the firepower of the RCB," Cox said... [Read More](#)



VOICE FROM THE COMMUNITY



Sriraam Natarajan, Associate Professor at the Department of Computer Science, University of Texas, Dallas

My research interests lie in artificial intelligence (AI), with an emphasis on machine learning, statistical relational learning and AI, reinforcement learning, and graphical models and biomedical applications. Due to my research efforts, I was the recipient of the Young Investigator Award from the U.S. Army Research Office, the Amazon Faculty Research Award, the Intel Faculty Award, the XEROX Faculty Award, and Indiana University (IU) Trustees Teaching Award. I was also the co-editor-in-chief of the machine learning section of *Frontiers in Big Data* journal, an editorial board member of MLJ, JAIR, and DAMI journals, and the electronics publishing editor of JAIR. Additionally, I organized key workshops in statistical relational learning.

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UPCOMING EVENTS

2019 International Military Helicopter

29 July 2019 to 31 July 2019

Multi-Domain Battle Management Summit

21 August 2019 to 23 August 2019

Modern Day Marine

17 September 2019 to 19 September 2019

Insensitive Munitions & Energetic Materials Technology Symposium (IMEMTS)

21 October 2019 to 24 October 2019

► Want your event listed here? Let us know!

HIGHLIGHT



Crowd Control for Drone Payload

24 July 2019

SOFWERX will conduct a Capability Collaboration Event (CCE) focused on Military Information Support Operations (MISO) Expeditionary Organic Tactical Airborne Intelligence, Surveillance, and Reconnaissance Capability Set (EOTACS)'s unmanned aircraft system payloads. For more information, visit: <https://www.dsiac.org/events/suas-eotacs-payloads>

DSIAC JOURNAL SPRING 2019



A Titanium-Based Igniter System for Hand-Grenade Fuzes

Also in This Issue:

- Laser Power Beaming
- Random Error in Small-Caliber Dispersion
- Additive Manufacturing for Aerospace Maintenance and Sustainment
- Microdiode Lasers: A Safer Alternative for Electrically-Fired Energetic Devices



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RECENT NEWS



Just In: Navy Chief Anticipates 3-D-Printed Nuclear Weapons



Algorithmic Warfare: DARPA's "AI Next" Program Bearing Fruit



Navy Arms Destroyers With New High-Powered Laser – Changes War Tactics



AFRL Puts New Technologies Into Space Aboard World's Most Powerful Launch Vehicle



Warfighters Need Trusted Sensors



Meet "THOR," the Air Force's New Drone-Killing Microwave Gun



Army Futures Takes Key Step in Enabling Interoperability of Multinational Power Systems



Designs of Experiments (DOE) in Survivability Testing



U.S. Navy Began Testing Advanced Version of Long-Range Electromagnetic Weapon



Webinar: High-Power, Radio Frequency/Microwave-Directed Energy Weapon Effects

Tuesday 30 July 2019 – 12:00 p.m. to 12:45 p.m. EDT

This webinar will introduce directed energy weapons (DEWs) and their effects – specifically, high-power, radio frequency/microwave (HPM) DEWs. The presentation will cover what HPM weapons are, the types of weapons – narrowband and wideband, how the weapons are similar to, but different from traditional electronic warfare (EW) and electromagnetic pulse (EMP), and how the HPM energy couples into a target’s electronics and their effects. We will also cover some of the basic modeling and simulation tools for computing and estimating the probability of target failure as a function of weapon power density and range. Finally, we will show an example of how to determine hardening requirements for a notional helicopter against an HPM weapon. [Read More](#)

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