

# Defense Systems

## DIGEST

18 JUNE 2019 – THE LATEST FROM DEFENSE SYSTEMS INFORMATION ANALYSIS CENTER



### NOTABLE TECHNICAL INQUIRY

*Is there precision accuracy data for the 25-mm gun on the Joint Strike Fighter (JSF), ideally for both the target practice (TP) round and high-explosive incendiary (HEI) round?*

DSIAC was asked to assist in locating information or points of contact (POCs) for discussion on circular error of probability (CEP) data for the 25-mm gun on the Joint Strike Fighter (JSF). DSIAC contacted the JSF Gun Integrated Product Team (IPT) lead to verify that the types of ballistics... [Read More](#)

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### FEATURED NEWS

#### **Army Wants Hypersonic Missile Unit by 2023: Lt. Gen. Thurgood**

PENTAGON: The Army will field a battery of truck-borne hypersonic missiles in 2023, with a contract award in August, the service's new three-star Program Executive Officer said. The service will also field a battery of 50-kilowatt lasers on Stryker armored vehicles by 2021, he said. A program to put a 100-plus-kilowatt laser on a heavy truck, however, is under review and may be combined with Air Force and/or Navy efforts to reach comparable power levels, Lt. Gen. Neil Thurgood told reporters here this afternoon.



Thurgood's recently reorganized and upgraded office will also take over key Army space programs, he said, but those organizations haven't been brought under his command just yet.

Commonality is key, Thurgood said, with the three services combining their efforts and pooling resources wherever possible on these high-stakes, high-tech, high-cost programs. (Marine acquisition is mostly managed by the Navy). [Read More](#)

VOICE FROM THE COMMUNITY



**Peter A. Morrison**, Program Officer, Directed & Counter Directed Energy Weapons, Office of Naval Research (ONR)

Working for the U.S. Navy for 35 years on weapons (air, surface, subsurface, directed, kinetic, conventional and non-conventional, and improvised), I joined ONR 20 years ago to focus research in improved performance, including high-energy lasers (HELs) and high-power microwaves (HPMs). I direct/fund basic research, applied sciences, and advanced prototype programs, including the deployment of the Laser

Weapon System (LaWS) on the USS PONCE [AFSB(i)-15], the Solid State Laser-Technology Maturation (SSL-TM) Program, and the Ground-Based Aviation Defense (GBAD) HEL weapon. These programs involve laboratory theoretical investigations, component development, systems integration, field testing, virtual modeling, and user field testing.

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UPCOMING EVENTS

**CBRN Defense Conference & Exhibition**

23 July 2019 to 24 July 2019

**Fleet Maintenance & Modernization Symposium (FMMS)**

7 August 2019 to 9 August 2019

**Air Vehicle Technology Symposium 2019**

10 September 2019 to 12 September 2019

**2019 IEEE International Integrated Reliability Workshop (IIRW)**

13 October 2019 to 17 October 2019

► Want your event listed here? Let us know!

SEEKING YOUR KNOWLEDGE

**What tools are available to determine the launch acceptability region (LAR) for a tube-launched UAS given a set of flight performance characteristics?**

**Are you a DoD expert in electric vehicles or position, navigation, and timing (PNT)?**

► To learn more about technical inquiries click here!

DSIAC JOURNAL SPRING 2019



**Additive Manufacturing for Aerospace Maintenance and Sustainment**

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- A Titanium-Based Igniter System for Hand-Grenade Fuzes
- Laser Power Beaming



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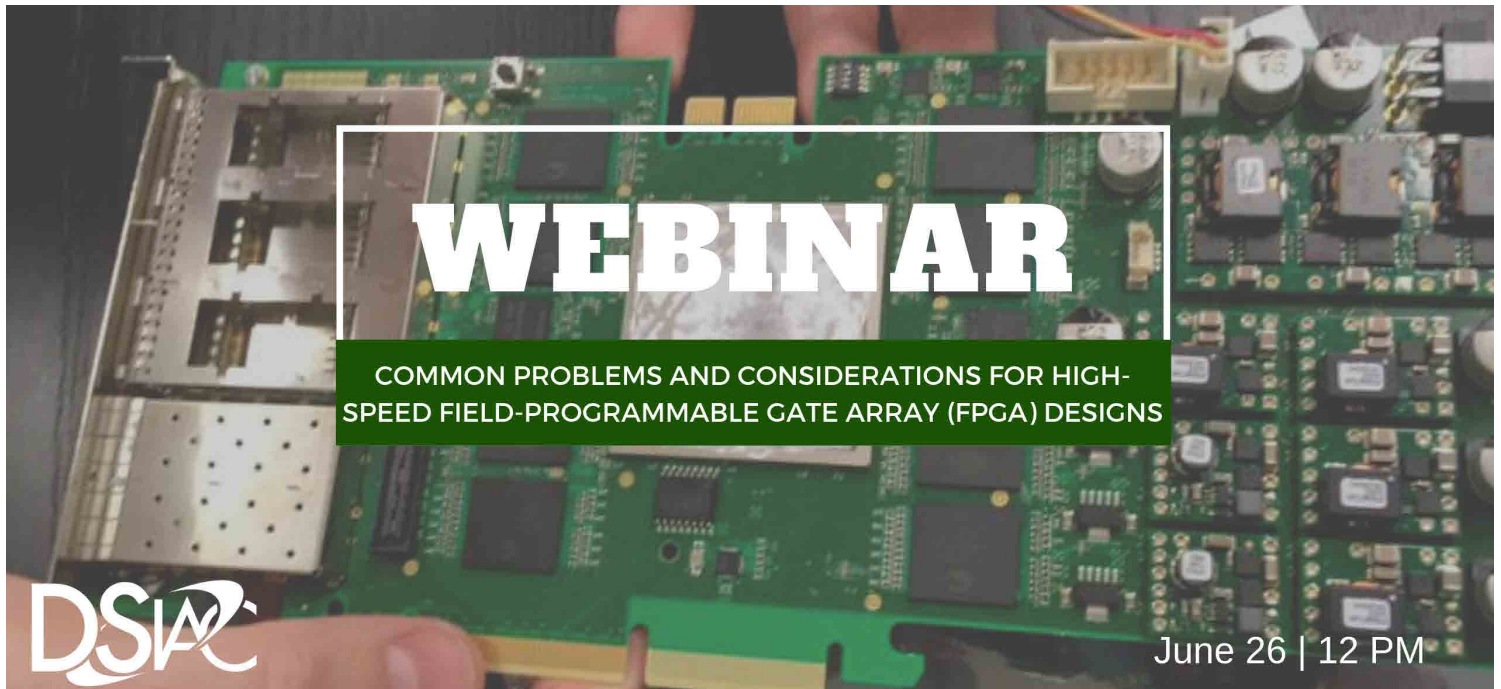
SURVIVABILITY AND VULNERABILITY

**U.S. Researchers Show Potential of Lightweight Foam for Armoured Vehicles**



WEAPON SYSTEMS

**Navy Rolling Out First Laser-Based Air Defense Weapon**



**Webinar: Common Problems and Considerations for High-Speed Field-Programmable Gate Array (FPGA) Designs**

Tuesday 26 June 2019 – 12:00 p.m. to 12:45 p.m. EDT

FPGA's use in complex sensor systems is growing rapidly. Radar, communication, navigation, and weapon systems are increasingly relying on the speed, flexibility, and determinism that FPGAs bring to the table for signal and digital signal processing. Although their usage in complex designs is growing rapidly, a certain mystery still surrounds good practices and techniques for high-speed FPGA designs. However, the importance of these practices is becoming more important as clock speeds and bandwidths increase. This webinar will introduce good practices to avoid common problems in FPGA firmware designs. These techniques are useful for medium and low-speed designs as well. [Read More.](#)

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