

Defense Systems

DIGEST

18 DECEMBER 2018 – THE LATEST FROM DEFENSE SYSTEMS INFORMATION ANALYSIS CENTER



NOTABLE TECHNICAL INQUIRY

What information is available on low-velocity grenade munitions?

DSIAC BCO subject matter experts (SMEs) performed an informational search of open sources, the Defense Technical Information Center (DTIC) repository, and Joint Army-Navy-NASA-Air Force (JANNAF) repository briefings, data sheets, and bibliographies for related research reports, programs, and developed munitions. Additionally... [Read More](#)

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FEATURED NEWS



Unmasking the F-15X, Boeing's F-15C/D Eagle Replacement Fighter

Boeing and the USAF have been in talks for a year and a half about replacing the aging F-15C/D with a brand new advanced Eagle derivative, the F-15X. Still, next to nothing is known about this initiative, including where it came from and what it entails exactly. It's been framed as a Boeing solicitation to the USAF, but the USAF actually began the discussion over a year and a half ago. Since then, ongoing talks have been kept hush-hush, along with the details of the aircraft involved—until now. The War Zone has learned about... [Read More](#)

MODEL OF THE MONTH

BlueMax6 – BlueMax6 is an aircraft flight dynamics, flight path generator, maneuver, mission, and aero-performance evaluation model. It provides high-fidelity air-vehicle dynamics and Time & Space Position Information (TSPI) for constructive and virtual modeling simulation and analysis.

[Get this model!](#)



VOICE FROM THE COMMUNITY



Albrecht Jander, Associate Professor, *Oregon State University, Applied Magnetics Laboratory*

I am a professor of electrical engineering and co-director of the Applied Magnetics Laboratory at Oregon State University in Corvallis, Oregon. I conduct research on technological applications of advanced magnetic materials and, in particular, magnetostrictive materials. Currently the laboratory is studying the parametric interactions of spin waves and acoustic waves in magnetostrictive materials for non-linear microwave signal processing as well as processes for additive manufacturing of microwave magnetic materials in gradient index lenses. I look forward to collaborating with others on magnetic device design or providing advanced measurement services.

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UPCOMING EVENTS

65th Reliability and Maintainability Symposium

28 January 2019 to 31 January 2019

Autonomous VTOL Technical Meeting & eVTOL Symposium 2019

28 January 2019 to 1 February 2019

Surface Warships

29 January 2019 to 31 January 2019

2019 Tactical Wheeled Vehicles Conference

3 February 2019 to 5 February 2019

► Want your event listed here? Let us know!

BULLETIN BOARD

George H.W. Bush: A Life of Service

ERDCWERX is Latest Innovation at ERDC

Save the Date – January 30, 2019 Live Webinar Presentation on “The Cold Spray Revolution”

T3 Accelerator – Human-Machine Teaming for ISR

► Add your item to our board by contacting us.

DSIAC JOURNAL FALL 2018



Overcoming the Barriers to Human-Machine Teams

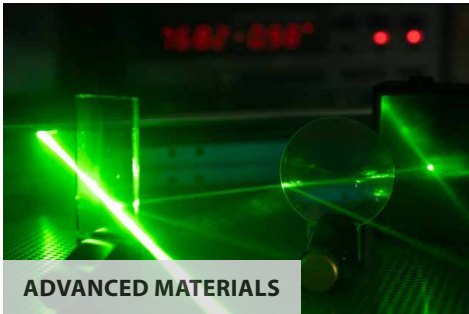
Also in This Issue:

- Fire Risks with Fiber-Reinforced Polymer (FRP) Composites
- Radio Frequency, Directed Energy Weapon Design Tool
- Optimizing Armament Systems with Artificial Intelligence and Machine Learning



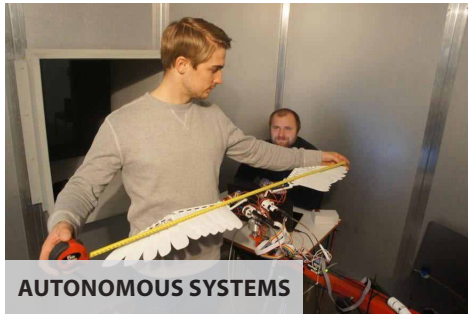
► Have an idea for a topic? Please contact us to write an article!

RECENT NEWS



ADVANCED MATERIALS

Army Scientist Seeks Enhanced Soldier Systems Through Quantum Research



AUTONOMOUS SYSTEMS

Reykjavik University Achieves Holy Grail of Airborne Technology-Drone That Looks and Flies Like a Bird



DIRECTED ENERGY

Army Boosts Investment in Lasers



ENERGETICS

Windshield Wiper Fluid a Potential Battlefield Fuel



MILITARY SENSING

China Reveals Prototype Configuration of Jam Resistant and Counter-Stealth 'Quantum Radar'



NON-LETHAL WEAPONS

Fast Strike Provides an Affordable Non-Lethal Self-Defense Option



RMQSI

Naval Air Systems Command Unveils a Breakthrough Alternative to Chromate-Based Primers for DoD Aircraft



SURVIVABILITY AND VULNERABILITY

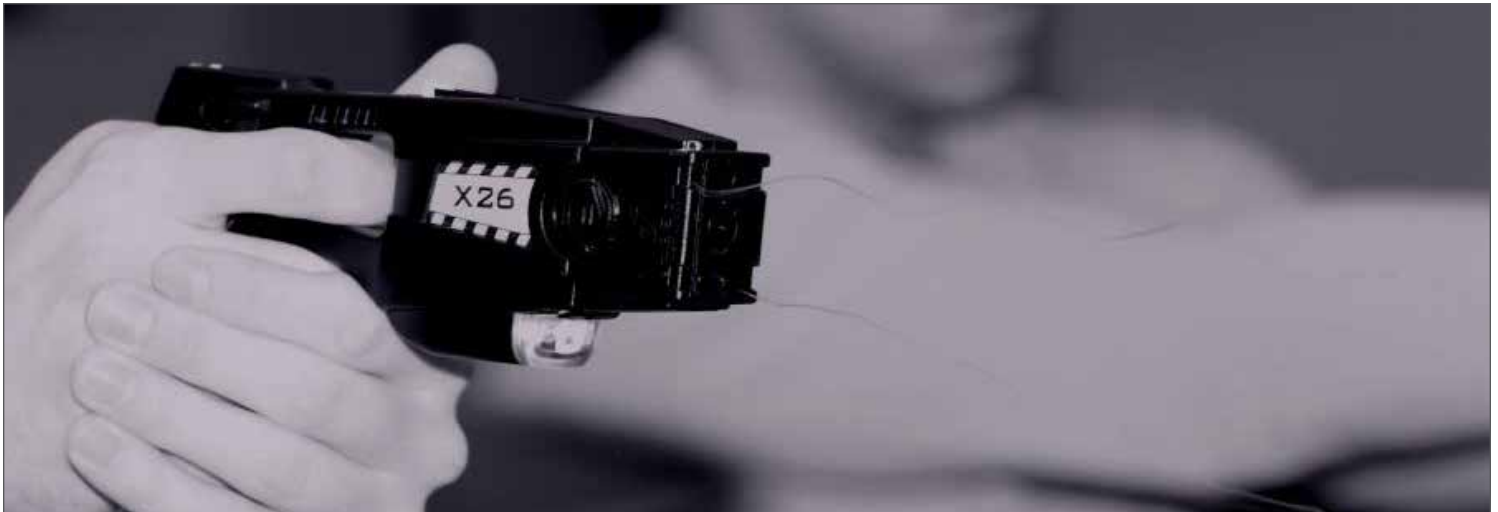
Public Safety Tech Accelerator Debuts



WEAPON SYSTEMS

Hybrid Theory: Lockheed Martin, Boeing Pitch Upgraded F-22, F-15

The Continuing Quest for a Non-Lethal Weapons (NLW) System for Military and Civilian Law Enforcement Needs



Since the late 1980s, military, federal, state, and local law enforcement have incorporated NLW or less-than-lethal technology into their daily efforts to discourage or prevent hostile action, temporarily disable attackers, suppress unruly crowds, quell prison riots, and reduce loss of life. Dispersing a crowd safely and quickly with an NLW has been an ongoing topic of research and development for local/federal law enforcement and military agencies.

In 1997, the Joint Non-Lethal Weapons Directorate (JNLWD) was established under the supervision of the Marine Corps, whose Commandant acted as the Executive Agent of the program. The program formed out of the Marine Corps' and Army's efforts to withdraw the United Nations forces from Somalia during the mid-1990s^[1]. Although the program's origin was for peacekeeping and humanitarian assistance, the program continues to enhance adaptability... [Read More](#)

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