



The McHale Report, by [militaryembedded.com](http://militaryembedded.com) Editorial Director John McHale, covers technology and procurement trends in the defense and aerospace electronics community. [View our archive](#) of recent and past issues of the McHale Report e-mail newsletter.



### PODCAST

## Leveraging ARINC 818 for military avionics and sensor applications



The ARINC 818 digital video interface and protocol standard is used throughout commercial and military cockpits for avionics display applications. As military video systems continue to increase in complexity in and out of the cockpit, for example in intelligence, surveillance, and reconnaissance (ISR) sensor systems, the demand for ARINC 818 solutions is growing. In this podcast, Tim Keller, Chief Operations Officer at Great River Technology discusses defines what ARINC 818 is, discusses common misconceptions about the standard, its growing use in sensor applications, new ARINC 818 training for engineers, and explores how the standard could potentially work within the Sensor Open Systems Architecture Technical Standard.

[Read More +](#)

### INDUSTRY SPOTLIGHT

## Virtualization: A FACE lift for vehicle control



As a testament to the celebrated success of FACE (Future Airborne Capability Environment), mandatory conformance

requirements for mission-system software have flowed down for nearly every applicable military program since the publication of FACE 2.0. But even as FACE informs and guides all aspects of software design for tactical mission systems (communications, flight control, flight map and planning, cockpit displays, etc.), the world of vehicle control harbors reservations about FACE adoption.

[Read More +](#)

### GUEST BLOG

## How collaboration can lower the barrier of entry to DoD business



In a recent congressional testimony, Deputy Defense Secretary Kathleen Hicks stated that as the United States faces

growing security challenges, acquisitions of new technology should "increase warfighting effectiveness, enhance resilience, leverage commercial technology and innovation, and rapidly respond to future threats. Hicks also called on the U.S. Department of Defense (DoD) to seek "interorganizational collaboration" to address such challenges, while expressing concern regarding the barriers to entry for technology companies that want to do business with DoD.

### MARKET RESEARCH

## Global unmanned combat aerial vehicle market to slow during 2021-2025



The unmanned combat aerial vehicle (UCAV) market will experience decremental growth of \$1.08 billion during 2021-2025,

with the growth momentum of that market decelerating at a combined annual growth rate (CAGR) of 9.16%, according to a new study from Technavio, "Unmanned Combat Aerial Vehicle (UCAV) Market by Type and Geography -- Forecast and Analysis 2021-2025."

[Read More +](#)

[Read More +](#)

## [Pentek's L-Band RF Tuner XMC Module Enhances SATCOM and Communications Applications](#)

The [Jade Model 71891 XMC module](#) is an L-Band RF tuner with two 400 MHz A/Ds based on the high-density Xilinx Kintex UltraScale FPGA. The Model 71891 is designed for connection directly to SATCOM or communications system L-band signals.

[Download Datasheet](#)

### INDUSTRY PERSPECTIVE

## Navy's unmanned campaign: Looking for partners



The Department of the Navy (DoN) plans to make some waves in the battle for limited resources. In over a thousand multiservice entries spanning all unmanned systems domains across the Department of Defense (DoD) in

the 2021 Consolidated Appropriations Act, Congress primarily funded the air domain. The DoN response to the maritime hit: a rallying cry to roll the entire air, sea, ground, and manned/unmanned enterprise together to create an affordable, integrated, lethal, scalable, survivable and connected force. It's called the Unmanned Campaign Framework.

[Read More +](#)

### TOP STORY

## Counter-drone system equipped with AI to be delivered to DoD



Citadel Defense announced that it has received a follow-on urgent contract award from the U.S.

Department of Defense (DoD) to protect the military from small drone threats. According to Senior Pentagon Leaders, small drones have been identified as the greatest battlefield threat since improvised explosive devices (IEDs).

[Read More +](#)

### TOP STORY

## Eurofighter aircraft to be equipped with new AESA radar technology



Sensor systems supplier HENSOLDT has won a contract in the frame of 'Quadriga' procurement program of 38

Eurofighter/Typhoon combat aircraft by the German Air Force. The contract placed by Airbus Defense and Space comprises production and delivery of radar systems and core electronics components which will be produced at HENSOLDT's site in Ulm and at consortium partner Indra's site in Spain.

[Read More +](#)

**Conduction Cooled VPX Packaging Solutions**

**Ready for Action**

[LEARN MORE](#)

**LCR** EMBEDDED SYSTEMS, INC.

**OpenVPX**

TOP STORY

TOP STORY

## VITA announces Dean Holman as VP and assistant executive director



VITA, the trade association for standard computing architectures serving critical embedded systems industries, announced that Dean Holman has accepted a position as VITA VP and Assistant Executive Director, effective March

1, 2021.

[Read More +](#)

## SABER software-based electromagnetic spectrum capability tested with BAE Systems



BAE Systems flight tested its Small Adaptive Bank of Electronic Resources (SABER) technology, paving the way for a critical

software upgrade to the EC-37B Compass Call, a next-generation electronic warfare aircraft. Teams from both BAE Systems and the U.S. Air Force conducted tests on 11 flights of an EC-130H from Davis Monthan Air Force Base in Arizona.

[Read More +](#)

### WEBCAST

## How SOSA Aligns with Current Open Standards



One of the keys to the success of the Sensor Open Systems Architecture (SOSA) is that it was developed by aligning with current

open standards and open systems architectures, including FACE, HOST, REDHAWK, OpenVPX, and similar specifications. The SOSA Consortium also works closely with such standards organizations as VITA, FACE, PICMG, IEEE, SAE International, Wireless Innovation Forum, and others. This webcast, titled "How SOSA Aligns with Current Open Standards," held Tuesday, May 11, covers how the SOSA Technical Standard has adapted to and aligned with open architecture standards and how it has impacted the design of SOSA-conformant hardware and software.

[Read More +](#)

### TOP STORY

## Electronic sensing payload added to MQ-9 Reaper mission capabilities



The U.S. Air Force, General Atomics Aeronautical Systems, Inc. (GA-ASI), and L3Harris Technologies have collaborated to

further expand the mission capabilities of the U.S. Air Force's MQ-9 Reaper Remotely Piloted Aircraft (RPA). According to officials, crews from the Air Force's 26th Weapons Squadron (WPS) flew an MQ-9 equipped with the Reaper Defense Electronic Support System (RDESS).

[Read More +](#)

### MARKET RESEARCH

## Artificial intelligence impact on defense to be enormous



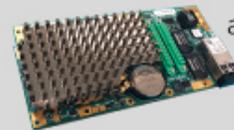
The future battlefield looks like an artificial-intelligence (AI)-assisted one, where human and machine work together, with AI conducting

specific tasks more effectively than a person ever could, according to a new study from GlobalData, "Artificial Intelligence (AI) in Aerospace and Defense – Thematic Research."

[Read More +](#)

## Chassis Manager Optimized for VITA 65/SOSA™ Profiles

The stock VITA 46.11-aligned WABGM0 Chassis Manager enables critical chassis control, maintenance, and security functions, and aligns with the SOSA Standard.



[Read More +](#)

### TOP STORY

### MARKET RESEARCH

## Tactical SATCOM payload prototype developed for Space Force



Northrop Grumman Corporation has been selected by the U.S. Space Force's (USSF) Space and Missile Systems Center (SMC) to proceed with its ongoing Protected Tactical SATCOM (PTS) Rapid Prototype program, with a flight demonstration of the company's PTS payload set to occur in 2024.

[Read More +](#)

### TOP STORY

## COTS open-architecture modules from Curtiss-Wright will upgrade F-22 avionics, mission-processing systems



Curtiss-Wright Corp. announced that it has won a contract with Lockheed Martin Aeronautics (a Lockheed Martin company headquartered in Fort Worth, Texas) to supply its rugged commercial off-the-shelf (COTS) processor module technology to upgrade the U.S. Air Force's F-22 Raptor tactical fighter aircraft.

[Read More +](#)

### TOP STORY

## Defense spending related to quantum computing would get boost under two proposed Senate bills



Two U.S. senators -- Maggie Hassan, D-N.H., and John Thune, R-S.D. -- have sponsored legislation that seeks to direct additional funding to the U.S. Department of Defense (DoD) for the further development of quantum computers used in national defense and security.

[Read More +](#)

### INDUSTRY SPOTLIGHT

## Making software FACE-conformant and fully portable: Coding guidance for Ada

## Optronics for use in airborne platforms to be worth \$2.5 billion by 2025



The market for airborne optronics - optical and vision equipment used by armed forces and security personnel for monitoring, identification, and classification purposes -- is projected to grow from \$1.4 billion in 2020 to \$2.5 billion by 2025, at a CAGR of 12.7% during the study period, according to a new study by MarketsandMarkets.

[Read More +](#)

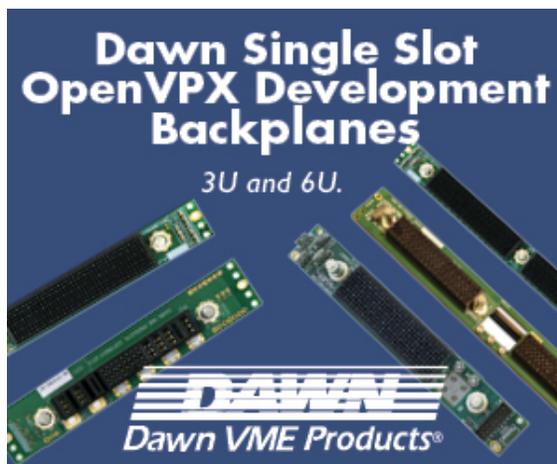
### TOP STORY

## Automated ISR intelligence sharing goal of Hexagon, General Atomics partnership



Hexagon US Federal has been selected to partner with General Atomics Aeronautical Systems, Inc. (GA-ASI) to provide geospatial solutions from Hexagon's Luciad Portfolio in support of cutting-edge intelligence, surveillance, and reconnaissance (ISR) projects.

[Read More +](#)



### TOP STORY

## ConfigOS software to automate cyber requirements for CMMC initiative



The FACE [Future Airborne Capability Environment] approach to reducing life cycle costs for the military is based on reusing

software components across different platforms and airborne systems. The FACE Technical Standard addresses this issue through a reference architecture and data model, well-defined interfaces, and widely used underlying industry standards (IDL, Posix, ARINC-653).

[Read More +](#)



SteelCloud LLC, a Security Technical Implementation Guide and Center for Internet Security compliance automation software

developer, announced that they now have a sixth contractor who has chosen to leverage its ConfigOS compliance software to automate the cyber hygiene requirements of the Department of Defense's (DoD) Cybersecurity Maturity Model Certification (CMMC) initiative.

[Read More +](#)

**TOP STORY**

## AI- and ML-enabled spectrum management tech goal of DoD research



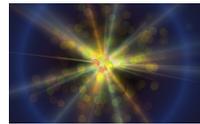
The U.S. Department of Defense (DoD) has issued a third Request for Prototype Proposal (RPPs) in support of electromagnetic

spectrum research related to the capabilities of the over 400 members of the National Spectrum Consortium.

[Read More +](#)

**TOP STORY**

## Optoelectronic tech and laser weapons to be researched by KBR



KBR announced it has won a \$48.5 million recompetete to support optoelectronic technology research for the U.S Air Force

Research Laboratory Sensors Directorate's Optoelectronic Technology Branch (RYDH). KBR will perform analyses of military and commercial developmental devices with emphasis on emerging electronic, plasmonic, electro-optic, and photonic technology.

[Read More +](#)

**SPONSORED WHITE PAPER**

## Electronic Warfare Sensor Processing in a SWaP-constrained Environment



How a major technology company turned to Abaco to help develop its planned unmanned aircraft

systems UAS platforms with sophisticated sensor subsystems – and the alternatives to its solutions that are enabled by new technologies.

[Read More +](#)

**SPONSORED WHITE PAPER**

## Increasing Density in Defense Electronic Systems



Effective EW (electronic warfare) systems are dependent upon staying ahead of competitive

nations in controlling and protecting data acquisition, information processing, and transmission within the battlefield arena.

[Read More +](#)

# Priority One: Raising the Bar for Simulation and Training Systems

**Sponsored by:** RTI

**Date:** May 4, 2:00 p.m. ET

[REGISTER NOW](#)

