

THE McHALE REPORT

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The McHale Report, by 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.



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EXECUTIVE Q&A

Military AI speeds up human decision-making



Imagining military artificial intelligence (AI) applications can make one dream up scenarios like those in the Terminator films, but in reality, AI solutions for defense are much more mundane and focused on improving decision-making for humans, whether they're aircraft maintenance personnel; pilots; or ISR analysts, says John Canipe, Director of Business Development, Air Force, at SparkCognition Government Systems, during a conversation we had. Edited excerpts follow.

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EDITOR'S PERSPECTIVE

USSOCOM and open architectures



Enthusiastic crowds were a theme at each show I attended over the last six months, as folks were eager to be back among their defense industry colleagues, clients, and partners. None were more excited than attendees at the annual Special Operations Forces Industry Conference (SOFIC) in Tampa, Florida, a show put on by the National Defense Industries Association (NDIA). Navigating the exhibition aisles of that show was like trying to walk through a crowded bar, as this was SOFIC's first in-person get-together since 2019.

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TOP STORY

Raytheon awarded \$41M by MDA to continue developing counter-hypersonic missile



The Missile Defense Agency has awarded Raytheon another \$41 million to continue development of a counter-hypersonic missile known as the Glide Phase Interceptor, according to a company statement.

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TOP STORY

Starliner first flight test completed by Boeing, NASA



The Starliner Spacecraft completed its first flight test at the U.S. Army's White Sands Missile Range in New Mexico, according to officials from Boeing, the Starliner builder. This test of an uncrewed orbital flight vehicle was flown to demonstrate the quality and performance of the transportation system prior to crewed flights.

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[High spectral density wideband microwave transceiver](#)

The [RFM3202](#) high spectral density 3U OpenVPX™ and SOSA aligned microwave transceiver supports high-bandwidth applications up to 18 GHz with 2 GHz per channel of IBW. Maximizing spectral density, this compact module provides two independently tuned coherent up-conversion and two down-conversion channels for EW, direction finding, SIGINT and signal measurement applications.

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MARKET RESEARCH

War in Ukraine may drive demand for embedded systems in armored vehicles: report



The ongoing war in Ukraine may cause a surge in investment in embedded systems for the armored vehicles market, according to a report.

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TOP STORY

Mission computers on A-10 USAF fleet to be replaced in modernization effort



Raytheon Intelligence & Space (RI&S -- a Raytheon Technologies business) obtained a \$46.2 million firm-fixed-price Project-Level Agreement under the SOSSEC Consortium's AFLCMC Consortium Initiative OTA from the U.S. Air Force to replace the A-10C Thunderbolt II mission computer with the RI&S Common Open Secure Mission Computer (COSMC), which is a modernized processing system for combat systems aimed at enhancing air dominance and improving sustainability.

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SPECIAL REPORT

Creating the data fabric for tactical edge with software-defined wide area networking



A software-defined WAN (SD-WAN) can establish a data fabric capable of dealing with any tactical edge scenario where reliable WAN is needed.

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TECHNOLOGY UPDATE

Convertible UAS debuts in Ukraine war zone



The Vector uncrewed aircraft system (UAS) – a fixed-wing electric vertical takeoff and landing (eVTOL) drone – made an effective battlefield debut in Ukraine for NATO allies, proving that such commercially developed systems can be deployed quickly for decisive wartime advantages.

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LCR EMBEDDED SYSTEMS

SOSA **OpenVPX**

SPONSORED CONTENT

PRODUCT OF THE WEEK: Critical I/O's NVMe conduction-cooled, 3U VPX solid-state, removable drive



This week's product, Critical I/O's SP306N-CCVPX StorePak NVMe CC (conduction-cooled), 3U VPX, is a single slot removable SSD (solid state drive) module designed to be used either stand-alone as Direct Attached Storage, or in conjunction with Critical I/O's StoreEngine storage

TOP STORY

U.S. Air Force FACE/SOSA Sept TIM registration is live



Registration is live for the U.S. Air Force - FACE and SOSA Consortia Technical Interchange Meeting (TIM) and expo being held on September 27, 2022 at the Dayton Convention Center in Dayton, Ohio. The event will feature expert presentations and demos by a cross-section of the defense community and industry on Future Airborne Capability Environment (FACE) and Sensor Open Systems Architecture (SOSA) related topics by a cross-section of the defense community, industry, and academia.

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TOP STORY

Leonardo DRS and RADA announce merger agreement



Leonardo DRS and RADA Electronic Industries announced that they have entered into a definitive agreement to merge and become a combined public company.

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SPECIAL REPORT

Standards-driven innovation: A perspective on SpaceVPX



Standards-driven product innovation creates a symbiotic relationship between systems integrators and technology developers. As new component-level technologies are introduced, they enable faster, lower-cost, and improved SpaceVPX (VITA 78.0) platform implementations. SpaceVPX systems that utilize these new technologies will have an increased adoption and deployment rate, creating improved development investment returns for the component suppliers while enabling accelerated deployment and usage of the integrated SpaceVPX systems.

manager and meets extreme military environment as well encryption and security standards.

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TOP STORY

Cross-domain network demonstrates tactical-edge sensing, processing



Collins Aerospace recently demonstrated a unified network that the company says achieved the range and scale required to support the Army modernization and JADC2 [Joint All Domain Command and Control] initiatives for joint and coalition forces. The demonstration was conducted as part of the recent Experimental Demonstration Gateway Exercise 2022 (EDGE 22).

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TOP STORY

Autonomous software for tactical autonomy from BAE Systems chosen for AFRL program



BAE Systems has won a \$7.8 million contract with the Air Force Research Laboratory (AFRL) to develop tightly integrated machine learning (ML) software as part of the Multi-Sensor Exploitation for Tactical Autonomy (META) program, which is aimed at enabling advanced situational awareness and automatic target recognition (ATR).

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TOP STORY

Rad-hard transistors for space use developed by industry-education team



Engineering firm Intellectual Property Developers has introduced, together with a team from Auburn University, technology that uses zinc oxide thin-film transistors for use in radiation-hardened electronics applications in space, nuclear power facilities, high-altitude aviation, and other radiation-heavy environments.

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TOP STORY

U.S. Army cyber directorate awards modernization contract spots



IT contractor Compass Point -- a subsidiary of Akima -- has won a spot on a contract with the U.S. Army to provide program support to the Cyber Capability Development Integration Directorate (CDID) at Fort Gordon, Georgia.

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SPONSORED WHITE PAPER

Revolution in Embedded Security



The growth of computing, graphics, neural processing power, communication bandwidth, and storage capacities have enabled amazing solutions. These innovations have created great value for society, and that value must be protected from exploitation by adversaries.

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MARKET RESEARCH

Global AMDR market to reach \$14.9B by 2026: Report



The global air and missile defense radar (AMDR) market will reach \$14.9 billion by 2026, according to a new market study from Global Industry Analysts Inc. That would represent significant growth for the industry over the next four years, as the study estimates the current AMDR market is \$10.5 billion.

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TOP STORY

Army inks \$84.5 million engineering contract for FVL program



SMX won a contract with the U.S. Army related to the Future Vertical Lift (FVL) program -- the Future Long Range Assault Aircraft (FLRAA) program services contract -- valued at \$84.5 million over five years to provide engineering, logistics, and acquisition/strategic planning services to U.S. Army ASA(ALT)/PEO Aviation.

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SPONSORED WHITE PAPER

FACE 3.1 Enhancements. What Could Possibly Go Wrong?



This white paper is an educational piece jointly penned by a defence systems OEM, a tier one RTOS provider and a FACE Verification Authority. It introduces the principles and benefits of the FACE standard, how FACE systems are constructed and explains the path to achieve conformance to the standard.

[Read more +](#)

JADC2 and Data-Centricity: Creating a Joint Posture of Deterrence

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