Countering complex battlefield threats, faster DoD acquisition process, game-changing artificial intelligence, rugged computing advances

Lessons learned in combat situations like Ukraine and anti-access area denial (A2/AD) environments have given U.S. defense planners a better understanding of the technological capabilities of near peer adversaries such as Russia and China...

This podcast is sponsored by Annapolis Micro Systems.

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VITA’s switched fabrics roadmap

Over the years, VITA’s charter has evolved to embrace a host of new open architecture standards for critical embedded computing. Originally founded to develop standards and an ecosystem in support of VMEbus, VITA has evolved its interconnect strategy for high performance computing to be based on leading switched fabrics. Most popular are Ethernet, PCI Express, InfiniBand, and Serial RapidIO. Today’s working groups now spend their efforts on developing standards that implement the latest advancements in the roadmaps of these fabrics in various VITA form factors such as VPX, VNX, XMC, and FMC.

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Game-based maintenance training solution developed for USAF aircraft

UGV market to grow to $7.0 billion globally by 2025, study says

The global market for unmanned ground vehicles (UGVs) is projected to grow from $2.7 billion in 2018 to $7.0 billion by 2025, at a CAGR of 14.81 percent, according to a new report from MarketsandMarkets...

TOP STORY

USAF accepts Pegasus tanker delivery, deficiencies to be addressed with remote vision system

U.S. Air Force officials accepted the first KC-46A Pegasus tanker from The Boeing Company. This is a major milestone for the next generation tanker and will allow Airmen to begin operational testing and flight training, Air Force officials report.

TOP STORY

DARPA seeks designs to cool super-hot hypersonic vehicles

The Defense Advanced Research Projects Agency (DARPA) recently announced its Materials Architectures and Characterization for Hypersonics (MACH) program, which seeks to develop and demonstrate new design and material solutions for sharp, shape-stable, cooled leading edges for hypersonic vehicles.

GUEST BLOG

Fiber and copper working together for today?s Ethernet backbones

In all mobile military and airborne platforms, the transition from mechanical systems to electronically controlled systems is taking place. As the electronics content continues to grow, so do the processing loads that happen on every platform. Embedded computers are rising in sophistication as they need to support sensors, radar, video streams, and remote-control functions.

MARKET/BUSINESS DEALS

EW simulation, training contract signed between Northrop Grumman and U.S. Air Force

Northrop Grumman Corp. and the U.S. Air Force have signed a $450 million indefinite delivery/indefinite quantity (ID/IQ) contract stipulating that Northrop Grumman will deliver its Joint Threat Emitter

TOP STORY

Spanish army to get complete helicopter fleet upgrade from Boeing

Boeing has signed an agreement with the government of Spain to upgrade all 17 of Spain's CH-47D Chinook helicopters to the F-model configuration, adding features such as the digital automatic flight-control system, common avionics architecture system, and advanced cargo handling. The upgrades will be
JTE anti-electronic warfare (EW) training systems to the Air Force.

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performed to align Spain's helicopters with those of other nations.

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MARKET/BUSINESS DEALS

CMV-22B variant support services added to V-22 platform contract with Bell Boeing

Officials at the Bell Boeing Joint Program Office signed a firm-fixed-price requirements contract for performance-based logistics (PBL) and engineering support for the V-22 platform. The 11-month base contract with four one-year option periods is valued approximately $143.8 million.

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TOP STORY

Avionics from Collins Aerospace will ride on NASA's QueSST demonstrator aircraft

Collins Aerospace has been selected by Lockheed Martin to provide avionics for NASA's new X-59 Quiet Supersonic Technology (QueSST) aircraft; Lockheed Martin is developing the X-59 in order for NASA to collect data that could make supersonic commercial travel over land possible through low-sonic-boom technology.

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MARKET/BUSINESS DEALS

Global combat aircraft market revenues to reach $493.14 billion by 2026, study says

The global combat aircraft market is set for rapid growth, with the potential to reach revenues of $493.14 billion by 2026, according to a new market study by Frost & Sullivan, “Global Combat Aircraft Market, Forecast to 2026.” The market study predicts a combined annual growth rate (CAGR) in this market of 39 percent, a high rate that has much to do with geographical instability, territorial and border disputes...

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MARKET/BUSINESS DEALS

UAS developer Aeryon Labs Inc. acquired by FLIR Systems

Developer of unmanned aerial systems (UAS) Aeryon Labs Inc. has been acquired by FLIR Systems, Inc for $200 million. Based in Waterloo, Canada, and with offices in Denver and Salt Lake City, Aeryon Labs was founded in 2007 and is a designer and manufacturer of mission-focused Group 1 UAS solutions built around aircraft under 20 pounds.

TOP STORY

CRA employs deep learning algorithms to extend detection capabilities in TOPGUN effort

The Office of Naval Research (ONR) tasked Charles River Analytics Inc. to build a maritime defense tool for the Topside Optical Processing for Global Unmanned Navy (TOPGUN) effort. The 18-month program is valued at $1.6 million.

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First 100Gb-Capable COTS FPGA Board, for High-Bandwidth Applications

For the most challenging real-time data digitization, processing, and storage applications, there is a new, higher-performing 6U OpenVPX board – the WILDSSTAR 6XB2. RT3 backplane connectors deliver 100Gb per Fat Pipe.
TOP STORY

'Swarm and Search AI Challenge' launched by U.S., U.K. research institutes

Officials at the U.K. Defence Science and Technology Laboratory (DSTL), the Air Force Research Laboratory (AFRL), the Wright Brothers Institute, and the University of Dayton Research Institute launched an artificial intelligence (AI) challenge that will conclude with a final showdown on March 29 - 31, 2019.

TOP STORY

DARPA hosts preliminary competition before SC2 grand finale

Defense Advanced Research Projects Agency (DARPA) officials held a second preliminary event of the Spectrum Collaboration Challenge (SC2) in December. Fifteen teams represented by members from across the academic, commercial, and defense industries gathered at Johns Hopkins University Applied Physics Laboratory (APL) to pit their intelligent radio designs against each other in a head-to-head competition.

MARKET/BUSINESS DEALS

GECO Avionics acquired by Mercury Systems

Officials at Mercury Systems, inc. completed the acquisition of safety-critical avionics and mission computing solutions provider, GECO Avionics, LLC. The acquisition of GECO is expected to complement Mercury's previous acquisitions of Creative Electronic Systems (CES), based in Geneva, Switzerland, and Richland Technologies (RTL), based in Duluth, Georgia, officials say.

SPONSORED CONTENT

ADLINK?s DDS-based TSS Software is Aligned to the FACE Technical Standard for the Aviation Sector

MARKET/BUSINESS DEALS

High-power amplifiers selected for U.S. Navy's Next Generation Jammer

The global CubeSat market is projected to grow from $152 million in 2018 to $375 million by 2023, at a
ADLINK has developed its Vortex DDS implementation as a reference to align to the FACE Technical Standard Edition 2.1.1 TSS, using DDS as the underlying transport layer. This is fully compatible and interoperable with the commercially supported Vortex OpenSpliceTM V6.10 solution.

CAGR of 19.87 percent, according to a new report from MarketsandMarkets, "CubeSat Observation & Traffic Monitoring, Communication, Science & Technology and Education)...

TOP STORY

Phase two of active protection system for Bradley Fighting Vehicle to proceed as planned

General Dynamics Ordnance and Tactical Systems (GD-OTS) -- together with Elbit Systems and a team from IMI -- will move forward with Phase II of the Iron Fist Light (IFL) Active Protection System (APS) for the Bradley Fighting Vehicle following the announcement of a positive Army Requirements Oversight Council (AROC) decision.

Airbus to develop satellite bus for DARPA Blackjack program

Defense Advanced Research Projects Agency (DARPA) officials selected Airbus Defense and Space Inc. to develop a satellite bus in support of the Blackjack program. Airbus Defense and Space, Inc. [Herndon, Virginia] is partnered with OneWeb Satellites [Exploration Park, Florida] as service providers for the Blackjack program.

New from TE: High speed products developer kit

The world of high speed connectivity is constantly changing and evolving, which is why we made it easier for you to make smart decisions about which high-speed interconnect products you should use. Everything you need to design your application is at your fingertips in TE Connectivity?s (TE) High-Speed Products Developer Kit.

IMT Vislink to deliver airborne video downlink solution to USAF

U.S. Air Force (USAF) officials selected xG Technology's business unit, IMT Vislink, to supply airborne video downlink solutions under a $900,000 order. The follow-on order is part of a previously announced contract announced in May 2018 originally valued at $1.4 million.
GUEST BLOG

Future weapons and the kill web

Come with me now as we travel to another dimension, a realm far beyond the mundane incremental improvements in traditional military weaponry. It’s a curious domain where warfare is bounded only by our imagination. The technology to implement the weapons you will see is available now, give or take some miniaturization of the components here and there. Not since the invention of gunpowder has mankind experienced such a revolution in the tools of armed conflict.

MARKET/BUSINESS DEALS

Vertex Aerospace to continue logistics support for USAF C-12 program

Mississippi-based company Vertex Aerospace will continue logistic support for the U.S. Air Force (USAF) C-12 program under a follow contract valued approximately $35 million and an estimated cumulative value of $70 million.