PODCAST

PODCAST: Defense avionics platforms benefit from FACE Technical Standard

The Future Airborne Capability Environment (FACE) Technical Standard, created to enable reuse of software components across multiple avionics platforms, enables avionics systems designers to greatly reduce the cost of software development over the platform’s life cycle. This will save hundreds of millions of tax payer dollars in the long run. In this podcast, Jeffry Howington of Collins Aerospace – also vice chairman of the FACE Consortium Steering Committee for nine years, discusses with me the impact of FACE on the military avionics community, the involvement of the user community, the benefits of FACE Technical Standard 3.0, and other topics.

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TOP STORY

XL autonomous submarine contract won by MSubs

An initial contract has been awarded to Plymouth-based MSubs Ltd to build a test submarine that will be used to explore the potential capabilities of larger un-crewed, underwater vehicles in the future. According to officials, this extra-large autonomous submarine measuring about 30m in length is larger than autonomous submarines used for beach reconnaissance, allowing it to operate at a range of 3,000 nautical miles.

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TOP STORY

AI-enabled surveillance aimed at use in counter-UAS, force protection applications

FLIR Systems has launched the Ranger HDC MR, a new high-definition midrange high-definition thermal-imaging surveillance system that uses embedded analytics and image-processing algorithms to reduce the cognitive workload, enabling operators to distinguish quickly between true threats and false alarms, even in degraded weather conditions.

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SPECIAL REPORT

Eyes up and out: Advancing situational awareness in helicopter avionics

Basic physics still dictates much of what makes helicopter flight successful, but military airborne platforms are constantly faced with environments civilian rotary- and fixed-wing aircraft simply don’t encounter. Degraded visual environments, a need for reduced workload, and improved pilot-vehicle interface drive military helicopter avionics upgrades and remain at the top of customer design requirements. In response to these military-user needs, companies are attempting to uncomplicate
Rugged SFF 26 GHz Recorder with Sentinel? Intelligent Signal Scanner
The RTX 2684 combines the power of a Pentek Talon Recording System with a 26 GHz RF tuner and Pentek’s Sentinel intelligent signal scanning software, packaged in an extremely rugged, small form factor (SFF) 1/2 ATR chassis. Download Datasheet.
Military power conversion: the value of strategic customization (Part 1)

As the military-electronics industry continues to transition toward commercial off-the-shelf (COTS) products, established standards, and modular designs, the need for tailored solutions remains—there is a middle ground. In this, Part 1 of a two-part blog series, the benefits and drawbacks of custom parts are discussed.

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AEHF-6 satellite now in communication with Space Force

The first national security launch for the U.S. Space Force and the final satellite to build out the protected communications constellation is now connected.

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FLIR sensors to equip U.S. Army vehicles

Raytheon Company has developed, manufactured, and delivered the 3rd GEN Forward-Looking Infrared (FLIR) sensor system under a U.S. Army contract awarded in 2016. FLIR system is designed to give soldiers four fields of view and the ability to see across long- and mid-wave IR bands simultaneously with a stabilized line of sight.

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C-UAS hardware ordered for DIB COVID-19 efforts

Liteye Systems, Inc., counter-unmanned aerial systems (C-UAS) developer, announced the receipt of an add-on specialty production order for $3 million. The contract will ensure delivery of hardware for U.S. Government urgent requirements during this unprecedented time dealing with COVID-19.

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C4ISR global market may reach $135.8 billion by 2027, study finds

The market for command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR) could total as much as $135.80 billion by 2027, according to a new study by Transparency Market Research, "C4ISR Market (Platform: Airborne, Naval, and Land; Components: Surveillance & Reconnaissance, Computer, Tactical Communication, Electronic Warfare, Command and Control, and Others) -- Global Industry Analysis, Size, Share, Growth, Trends, and Forecast, 2019 ? 2027."

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Raytheon, UTC merger closer to final with spinoff of subsidiaries

The board of United Technologies Corp. (UTC) has approved the spinoff of the company's Carrier heating and cooling and Otis elevator subsidiaries, keeping its planned merger with Raytheon on track.

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Skate for the 22 Foundation

Each issue, the editorial staff of Military Embedded Systems will highlight a different charitable organization that benefits the military, veterans, and their families. This issue we are highlighting Skate for the 22 Foundation, an East Coast-based (and growing) organization that forms and runs hockey leagues for veterans who may be grappling with post-military service civilian reentry issues. The group gets its name from the statistic that each day, 22 U.S. veterans are lost to suicide.

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COLUMNS

Facial-recognition technologies can carry cybersecurity, AI vulnerabilities

The U.S. military is developing new types of facial-recognition technologies – systems vitally important for the safety of soldiers in the field – to train artificial intelligence (AI) systems to perform identity verification and threat detection, but these advances can also come with some cybersecurity issues.

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MARKET RESEARCH

Technological innovation, COTS use will drive U.S. DoD growth in next few years, study says

The U.S. Department of Defense (DoD) is expected to spend an estimated $481 billion between 2018 and 2024 to identify and develop new technologies for advanced weapon systems, giving rise to numerous revenue opportunities in this space, according to a recent study by Frost & Sullivan, "U.S. Defense Science and Technology Research Market, Forecast to 2024."

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TOP STORY

Nanotech solutions for cyberattacks goal of AFRL, NAU partnership

Personnel from the Air Force Research Laboratory (AFRL) joined industry and military partners at Northern Arizona University (NAU) Feb. 25 to discuss a multimillion-dollar cybersecurity project headed by Professor Bertrand Cambou.

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TOP STORY

DARPA seeks to develop "virtual headlight" sensors for UASs

The Defense Advanced Research Projects Agency (DARPA) has embarked on a new program that it calls "Invisible Headlights," with the goal of developing sensors and algorithms to enable unmanned systems to navigate at night or underground.

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GUEST BLOG

How the kill web manipulates time and space

The best way to start this essay is with a simple formula that shows how the kill web manipulates time and space, and then explain how it works: \( t = \frac{d}{s} \). Time \( t \) is equal to distance \( d \) divided by speed \( s \).

GUEST BLOG

POSTPONED dates announced for AEROSPACE TECH WEEK

Despite not being able to proceed with Aerospace Tech Week this month in France we do at least now at last have some positive
divided by intelligence (i). The more intelligence we have about the enemy, the more we can manipulate time and space. The event is now officially confirmed as being postponed to 24-26th March 2021 in Toulouse again at the same venue. We are therefore delaying the return to Munich until 2022.