



## JULY 2019

The Avionics Design monthly E-newsletter from the editorial staff of [mil-embedded.com](http://mil-embedded.com) covers hardware and software avionics designs and certification issues in the commercial and military avionics markets in the U.S. and Europe via the Military Embedded Systems partnership with [Aviation Maintenance magazine](#) and the [Aerospace Tech Week](#) show.



### **PODCAST: Military unmanned aircraft and counter-UAS market update**

JOHN MCHALE, EDITORIAL DIRECTOR

The military unmanned aircraft market while mature, is a market that is growing in the U.S. and globally thanks to the increases in defense spending worldwide. The U.S. has made cyber and unmanned technology a priority, says Mike Blades, Vice President of Research and Consulting for Aerospace, Defense, and Security in the Americas at Frost & Sullivan, in this podcast. He also covers the latest trends from the commercial unmanned aircraft systems (UASs) market and how defense companies play in that market. Blades closes with his outlook for the counter-UAS market.

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### **Unmanned helicopter deemed deployable by Navy**

EMMA HELFRICH, ASSOCIATE EDITOR

The U.S. Navy's MQ-8C Fire Scout unmanned helicopter, manufactured by Northrop Grumman, has reached initial operational capability.

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### **Directed energy weapons to be developed by MoD**

EMMA HELFRICH, ASSOCIATE EDITOR



In a Prior Information Notice published this week, the Ministry of Defence (MoD) announced it is seeking to develop three new Directed Energy Weapon (DEW) demonstrators to explore the potential of the technology and accelerate its introduction onto the battlefield.

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## Radar to improve air traffic control at German military airfields

EMMA HELFRICH, ASSOCIATE EDITOR

Progress is being made with the installation of Hensoldt's Aerodrome Surveillance Radar, Series (ASR-S) for air traffic control modernization at German military airfields.

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## Autonomous counter UAV system acquisition fast tracked by DIU

EMMA HELFRICH, ASSOCIATE EDITOR

Defense Innovation Unit (DIU) has awarded Citadel Defense an Other Transaction Authority contract to help military, government, and law enforcement agencies rapidly purchase a validated capability that protects the airspace from unwanted drones.

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## The state of the shortage

AVIATION MAINTENANCE MAGAZINE

Delta Air Lines estimates hiring 500 mechanics this year. The company says it's on track to double its TechOps business in the next five years, from \$1 billion to \$2 billion in revenue. Embraer will double the 100 commercial jet aircraft maintenance services jobs they expected to bring to Macon, Georgia, the company said only months after it opened a facility there. Stories like these are plentiful now, but is there a lack of people to do the work?

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## Boeing awarded contract for maintenance on Britain's P-8A Poseidon

EMMA HELFRICH, ASSOCIATE EDITOR

Boeing was awarded a \$23.3 million contract for logistics support on P-8A Poseidon aircraft sold to Britain's military, the Department of Defense announced.

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## Quantum tech for DoD to be developed by IBM and AFRL

EMMA HELFRICH, ASSOCIATE EDITOR

The Air Force Research Laboratory (AFRL) is embarking on efforts to partner with industry, academia, and the Department of Defense (DoD) to apply quantum information science to U.S. Air Force concerns and ensure capabilities.

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## COTS, SOSA, and Open Architectures - The New Space Race Podcast

WIND RIVER

Today, multi-national corporations and startups alike are addressing the emerging sector of commercial spacecraft. Known as "new space," it is where companies are introducing new designs that propel them at the forefront of technological advancement in areas such as 5G networking and big data imaging. As the new space race heats up, Wind River? brings you a podcast series that recounts some of the disruptive changes that are transforming the industry. Tune in to the next episodes: Enabling COTS in Space, and Open Architectures and Reuse Initiatives in Space Systems.

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## F-35 fighter plane to be retrofitted after Lockheed wins contract

EMMA HELFRICH, ASSOCIATE EDITOR

The Pentagon announced a \$21.5 million contract with Lockheed Martin for modifications to the F-35 Lightning II Joint Strike Fighter plane.

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## NASA's Orion spacecraft completes final launch abort system flight test

EMMA HELFRICH, ASSOCIATE EDITOR

The critical launch abort system for NASA's Orion spacecraft was put to test, and it demonstrated its capability to pull the crew module and future astronauts to safety during a launch if there is an emergency.

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## AESA radar on B-52 bombers will get upgrade from Raytheon

LISA DAIGLE, ASSISTANT MANAGING EDITOR

Raytheon will design, develop, produce, and sustain active electronically scanned array (AESA) radar systems for the entire U.S. Air Force B-52 fleet.

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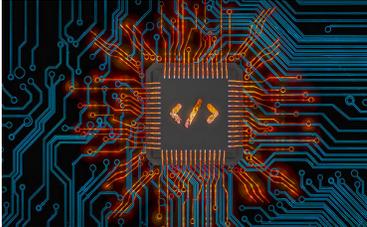
## Cyber security and the aftermarket: Ready or not? ? A burning question

AVIATION MAINTENANCE MAGAZINE



Not a day goes by without news of massive cyber attacks. Attackers have hoovered up valuable personal information on hundreds of millions, even billions of people. On-line communities, banks, credit bureaus, hotels, governments ? and, yes, even airlines ? have been hacked. Given years of escalating threats, what?s surprising is the unevenness of the aviation industry?s response.

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## **Webcast: Solving thermal management challenges in military systems on July 18 at 11 am Est**

JOHN MCHALE, EDITORIAL DIRECTOR

Modern processors, graphics processors, FPGAs, etc. provide untold performance benefits, but also generate excessive amounts of heat. Getting rid of this heat and keeping electronics cool is essential for designers of electronic warfare, radar, and other processing-intensive military applications. In a webcast, titled "Making it Cool: Solving Thermal Management Challenges in Military Electronics," on Thursday, July 18, at 11 am Est., industry experts will cover various methods for solving thermal management challenges when integrating commercial processing technology.

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## **What?s new in vibration monitoring and mitigation for helicopters**

AVIATION MAINTENANCE MAGAZINE

From airframe-specific Health Usage and Management Systems (HUMS) to portable rotor track and balancing units, there are a lot of advanced technology tools available to help keep helicopters flying smoother, safer and more efficiently.

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# **Raytheon**

## **UAS and radar integrated Howler deployed to battlefield**

EMMA HELFRICH, ASSOCIATE EDITOR

The U.S. Army recently announced that the Howler counter unmanned aerial system achieved Initial Operational Capability, putting critical protection against drones in the hands of soldiers.

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WHITE PAPER

## Using Software Full Disk Encryption and Disk Partitioning to Protect and Isolate Network Attached Storage Functions

CURTISS-WRIGHT DEFENSE SOLUTIONS

Unmanned vehicles are ideal for intelligence, surveillance, and reconnaissance (ISR) missions due to the amount of data a vehicle can gather without the risk to human life. As they are increasingly being used to gather large amounts of different types of data, the need for data storage versatility and data security rises. However, the risk of data loss or corruption grows as the number of systems using different protocols connecting to the device rises. Additionally, as the use of unmanned vehicles for deployed applications increases, so does the risk of highly sensitive data being lost or captured in hostile territory. Through disk partitioning and commercial off-the-shelf (COTS) data-at-rest (DAR) encryption, this paper proposes a solution that reduces risk of data loss, corruption, and accessibility if intercepted.

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## Making it Cool: Solving Thermal Management Challenges

**Sponsored by:** Atrenne Computing Solutions, Kontron, nVent Schroff

**Date:** July 18, 11:00 a.m. ET

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