

## **NEWS RELEASE**

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Curtiss-Wright Unveils Assured Position, Navigation & Timing (A-PNT) Solutions for UK / European Ground Vehicles in GPS/GNSS Denied Environments

Upcoming VPX3-673 3U OpenVPX<sup>™</sup> module and DuraDBH-672A Digital Beachhead<sup>™</sup> system expand Curtiss-Wright's A-PNT offerings for UK and European System Designers

**EUROSATORY 2018, Paris Nord Villepinte Exhibition Center (Hall 5A, #D323) – June 11, 2018 –** Curtiss-Wright's Defense Solutions division today announced plans to introduce a family of commercial-off-the-shelf (COTS)-based modules and LRU solutions designed for "Five Eyes" system integrators seeking to rapidly and cost-effectively deploy Assured Position, Navigation and Timing (A-PNT) services to ground vehicles operating in GPS/GNSS-denied environments. All Curtiss-Wright infrastructure switch products are designed to support the UK MoD's Generic Vehicle Architecture (GVA) Def-Stan 23-09.

Building on its current Rugged Switch, Vehicle Processor, and A-PNT Systems solutions, the <a href="DBH-672">DBH-672</a> Digital Beachhead</a> and <a href="DBH-670">DBH-670</a> Digital Beachhead</a>, Curtiss-Wright is developing the new VPX3-673 A-PNT card, a rugged high performance 3U OpenVPX™ single board computer. The VPX3-673 A-PNT card will speed and ease the integration of Complementary PNT sources on ground vehicles, delivering state-of-the-art technology services, including a GPS/GNSS Receiver, Chip Scale Atomic Clock (CSAC), and an on-board Inertial Measurement Unit (IMU). This innovative size, weight and power (SWaP) optimized module will eliminate the need for multiple in-platform boxes or the use of "bolt-on" technologies in order to field new Navigation Warfare (NAVWAR) capabilities.

Curtiss-Wright also announced a new enhanced version of its current DBH-672 Digital Beachhead. The DBH-672A Digital Beachhead, a fully integrated rugged LRU, adds support for a GPS/GNSS Receiver, CSAC, and IMU to the earlier model's built-in infrastructure switch and shared processor unit features.

"Our UK and European customers are seeking state-of-the-art technology capabilities that enable the detection of threats to GPS and GNSS while delivering trusted distributed PNT data to in-vehicle clients," said Lynn Bamford, Senior Vice President and General Manager, Defense Solutions division. "Building on the success of our GVA-compliant Digital Beachhead switches, we are proud to lead the industry in delivering COTS-based solutions that reduce time, complexity, and cost to integrate the software and hardware elements required by the warfighter to effectively conduct NAVWAR."

## **A-PNT from Curtiss-Wright**

Curtiss-Wright's A-PNT solutions are designed to provide ground vehicles with access to trusted PNT information while operating in conditions with limited, impeded, or denied GPS/GNSS. Based on open-architecture, COTS technology, Curtiss-Wright's VPX3-673 3U OpenVPX module and fully integrated rugged Digital Beachhead LRU A-PNT solutions are cost effective, simple to configure, and rapidly deployable. As well, these A-PNT products are SWaP-optimized for both combat and tactical wheeled vehicle platforms to ease the integration of software and hardware elements required by the warfighter to effectively conduct operations in a GPS/GNSS-denied environment.

By distributing the best available PNT data simultaneously to multiple platform applications that require GPS/GNSS data, Curtiss-Wright A-PNT solutions eliminate the need for a ground vehicle to support multiple GPS/GNSS receivers or antennas. Curtiss-Wright's A-PNT solutions meet legacy GPS/GNSS distribution requirements and are compatible with standard accessories, such as antennas, configuration cables, and all serial interface cables. They are designed to support both legacy and future technology, including interfacing to mission equipment, as well as Anti-Jam Antenna and tactical communications.

## **CMOSS Support**

Curtiss-Wright's infrastructure switch and A-PNT solutions are designed to support the new C4ISR/EW Modular Open Suite of Standards (CMOSS) defined by the US Army Material Command (Research, Development and Engineering Command) Communications-Electronics Center (CERDEC). Using CMOSS, system integrators will employ true industry open standards to develop rugged COTS solutions to meet the Army's critical requirements. The widespread adoption of CMOSS by system integrators in "Five Eyes" and other NATO nations, will help move the implementation of C4ISR capabilities away from the use of costly and complex "stovepiped" separate boxes on individual platforms. The use of true open standards will make it easier and more cost-effective to upgrade capabilities or keep pace with commercial technology due to complex integration challenges, lack of competition, and proprietary interfaces. In many cases stovepiped systems consume more SWaP than is currently available, thus necessitating expensive and time-consuming vehicle modifications.

This internationally supported suite of standards enables the reduction of C4ISR system size, weight and power (SWaP) and ensures commonality across multiple platforms by enabling the sharing of hardware and software components. Curtiss-Wright is well positioned to support these efforts with multiple existing product lines already designed in compliance with CMOSS standards, as well as new technologies currently in development, that align with its objectives, including COTS-based rugged single board computers, Ethernet switches, TrustedCOTS™ trusted computing approaches, radial clock modules, data storage systems and power supplies.

## **CMOSS Standards:**

The open standards currently included in CMOSS include:

- Vehicular Integration for C4ISR/EW Interoperability (VICTORY): provides network based interoperability using to share services such as Time and Position.
- OpenVPX: a hardware form factor for fielding capabilities as cards in a common chassis
- Modular Open RF Architecture (MORA): drives functional decomposition to share resources such as antennas and amplifiers
- Software frameworks: includes REDHAWK, Software Communications Architecture (SCA), and Future Airborne Capability Environment (FACE) to enable software portability

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Availability

Limited quantities of early access units (EAU) of the new VPX3-673 module and DBH-672A Digital Beachhead unit will be available to qualified customers. Please contact David Jedynak, CTO and Director, Curtiss-Wright A-PNT Program Office,

djedynak@curtisswright.com.

Sales inquiries: Please forward all Sales and reader service inquiries to

ds@curtisswright.com.

For more information about Curtiss-Wright's Defense Solutions division, please visit

www.curtisswrightds.com.

**About Curtiss-Wright Corporation** 

Curtiss-Wright Corporation is a global innovative company that delivers highly engineered, critical function products and services to the commercial, industrial, defense and energy markets. Building on the heritage of Glenn Curtiss and the Wright brothers, Curtiss-Wright has a long tradition of providing reliable solutions through trusted customer relationships. The company employs approximately 8,600 people worldwide. For more information, visit www.curtisswright.com.

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