



NEWS RELEASE

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Curtiss-Wright Demonstrates Cost-Effective, Fully Integrated A-PNT Solution for Ground Vehicles in GPS-denied Environments at AUSA 2018

SWaP-optimized COTS-based Digital Beachhead™ VICTORY-compliant network switch adds Complementary Assured Position, Navigation and Timing (A-PNT) services to ease modernization of ground vehicles

AUSA 2018, Washington, D.C. (Booth #1607) – October 8, 2018 -- Curtiss-Wright's Defense Solutions division today announced that has demonstrated a cost-effective, rapidly deployable COTS-based solution for delivering accurate Assured Position, Navigation and Timing (A-PNT) capabilities to ground vehicles operating in GPS-denied environments. The demonstration, held in Curtiss-Wright's booth (#1607) at the AUSA 2018 Conference, featured Curtiss-Wright's [Digital Beachhead VICTORY-compliant Switch subsystem](#) and showcased the industry's first fully integrated solution for detecting threats to GPS and delivering trusted A-PNT data to in-vehicle clients. The [size, weight, power and cost \(SWaP-C\) optimized](#) solution speeds and eases the integration of software and hardware elements required by the warfighter to effectively conduct Navigation Warfare (NAVWAR).

"Using our Digital Beachhead VICTORY-compliant switch to host critical Assured-Position Navigation and Timing services provides a low-risk solution that uniquely and effectively addresses a wide range of integration, logistics, and SWaP-C issues," said Lynn Bamford, Senior Vice President and General Manager, Defense Solutions division. "From its inception, the Digital Beachhead was designed to be extensible and ease the deployment of NAVWAR capabilities on ground vehicles, such as Assured-PNT, by enabling and easing the integration of inertial measurement, chip scale atom clocks, and other Complementary PNT services, while requiring only minimal configuration changes to the vehicle."

The open standards-based Digital Beachhead Switch featured in the demonstration has been fully qualified across the Stryker vehicle fleet. This off-the-shelf unit was installed

with a fit/form/function kit to deliver tightly integrated networked and legacy serial-based ICD-GPS-153 compliant services and is designed to support all in-vehicle PNT clients, including FBCB2, JBC-P, tactical radio, navigation computers, fire control computers, airborne sensor links, and C4ISR devices.

The demonstration featured the Digital Beachhead Switch interfaced with the vehicle's discrete SAASM DAGR unit. The demonstration unit, which was shown supporting external receivers, also supports internal receivers. The Digital Beachhead is designed to support internal integration of a GB-GRAM (Ground Based – GPS Receiver Application Module), with a simple path for internal upgrade to an M-CODE (Military Code) GB-GRAM. Because the A-PNT services are then consolidated within the vehicle's pre-existing VICTORY-compliant Switch chassis, no additional in-vehicle "real estate" is required. This simple upgrade delivers significant SWaP-C benefits, including the elimination of a separate, discrete receiver unit requiring a cumbersome standalone bracketed DAGR appliance and associated exposed cabling.

This elegant, cost-effective solution benefits from the vehicle's VICTORY Ethernet switch being co-hosted in the same chassis as the A-PNT services, which optimizes PNT data distribution. Because the extensible system architecture exploits the pre-existing space claim of the Digital Beachhead switch, logistics are simplified and total cost of ownership further reduced for system integrators seeking deployable A-PNT solutions. What's more, Curtiss-Wright's COTS integration design eases the deployment of additional state of the technology A-PNT services. The Digital Beachhead and its variants were intentionally designed to easily and incrementally enable the internal addition of Complementary PNT sources, via services such as Inertial Measurement Units (IMU) and Chip Scale Atomic Clock (CSAC), while eliminating the need for multiple boxes or the use of "bolt-on" technologies in order to field new NAVWAR capabilities.

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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