



## NEWS RELEASE

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FOR IMMEDIATE RELEASE

Contact: Robert F Coveny  
VP of Business Development  
[rcoveny@curtisswright.com](mailto:rcoveny@curtisswright.com)

John Wranovics  
Director of Communications  
M: 925.640.6402  
[jwranovics@curtisswright.com](mailto:jwranovics@curtisswright.com)

### **Curtiss-Wright Showcases New Rugged MOSA-based Solutions for Ground Vehicles and Live System Solution Demonstrations at AUSA 2023**

**AUSA 2023, Walter E. Washington Convention Center, Washington D.C. (Booth 1509) – October 9, 2023** – Curtiss-Wright's [Defense Solutions Division](#) will showcase its latest rugged system solutions designed to equip our warfighters with new and future technologies to adapt to an ever-changing and complex environment at the AUSA 2023 Annual Meeting and Exposition, October 9-11, 2023. Live demonstrations and displays will showcase the latest products designed in compliance with the U.S. Army CCDC C5ISR Center's [CMOSS mandate](#) and aligned with the Sensor Open Systems Architecture™ (SOSA) Technical Standard. Curtiss-Wright will highlight the warfighter benefits of a Modular Open Systems Approach (MOSA) architecture, including interoperability and reduced size, weight and power (SWaP). Demonstrations will include CMOSS Mounted Form Factor (CMFF) hardware integrated with a VICTORY data bus, Mounted Mission Command, 360° SA capability, and A-PNT applications for Ground Combat Systems (GCS) platforms. We will also showcase our PacStar family of secure wireless and network management products.

#### **Fabric100 Suite of 3U and 6U OpenVPX™ Modules and Systems**

Furthering its commitment to being a leading supplier of MOSA system solutions, Curtiss-Wright will present its new Fabric100™ family of extremely high-performance SOSA aligned processing engines. The Fabric100 Suite of 3U and 6U OpenVPX™ Modules and Systems provides system

designers with a complete end-to-end ecosystem of high-speed 100G rugged OpenVPX modules and system components. At AUSA, Curtiss-Wright will highlight the first four introduced members of the Fabric100 family, including the [6U CHAMP-FX7](#) FPGA engine and [CHAMP-XD4](#) 6U VPX Intel® Xeon D-2700 HPEC and Cognitive DSP Processor, and the [3U VPX3-1262](#) 14-core Intel Raptor Lake Hybrid Processor single board computer (SBC) and [VPX3-6826 switch module](#).

### **The Curtiss-Wright HMMWV Demonstration Vehicle**

Curtiss-Wright's U.S. Army M998 HMMWV demonstrator vehicle will host functional demonstrations of the latest MOSA-based CMOSS and SOSA aligned processing and tactical networking communications capabilities.

The integrated demo also highlights Curtiss-Wright's leadership position in enabling the seamless sharing of information between platforms, connecting the battlefield with Secure Wireless Network Solutions. All of the live demonstrations featured on the HMMWV Demonstration Vehicle are connected over the vehicle's network backbone using the IQ-Core® Software secure communications management solution.

### **HMMWV Demonstration Vehicle Highlights:**

- **A “Glide Path” Approach for Integrating SOSA Aligned Solutions on Ground Vehicles:** The latest addition to Curtiss-Wright's PacStar family of advanced communications solutions for the DoD is the new 5-Slot **PacStar VPX Smart Chassis**, which provides the highest level of SOSA alignment available today. The chassis is designed to fit into a SAVE enclosure alongside a **PacStar 400-Series 4-Slot Smart Chassis** comms system, facilitating the future transition to a full CMOSS/SOSA aligned hardware solution.
- **CMOSS/SOSA Ruggedized Universal Software-Defined Radio (USRP):** The SOSA aligned [VPX3-E320 USRP Ruggedized Universal Software-Defined Radio](#) module, the first fully rugged OpenVPX variant of technology partner NI's popular Ettus Research USRP E320 SDR solution, will be shown running 3dB Labs SCEPTRE software to show live RF spectrum and demodulation.
- **Low SWaP Command & Control Platform:** With technology partner REDCOM, Curtiss-Wright will demonstrate rugged deployable communications featuring REDCOM Sigma

running on the PacStar Hybrid MOSA Solution, which houses both the new **PacStar VPX Smart Chassis** and **PacStar 400-Series 4-Slot Smart Chassis** in a single SAVE enclosure. This compact single-platform solution will feature the REDCOM Sigma C2 Console unified interface for controlling voice, video, chat and radio interoperability on IP and RF Command and Control networks. The hybrid CMOSS OpenVPX chassis shows Curtiss-Wright CMOSS/SOSA modules integrated with existing PacStar 400-Series modules.

- **Tactical Data Links for Battlefield Communications:** Curtiss-Wright's **TCG HUNTR Tactical Data Link (TDL) Hub and Network Translator** will be shown messaging CMFF, Link 16 and other TDLs that enhance situational awareness for vehicle platforms, with Curtiss-Wright's **TCG BOSS (Battlefield Operations Support System)** running in the background. Simulation software providing visibility into real world links with air, sea and ground platforms on a local map will be shown running on the [Parvus® DuraCOR 8043](#) small form factor mission computer.
- **A Deployable Network Backbone:** The [Parvus DuraNET 3300 Cisco Switch](#) provides network connectivity to nodes in the HMMWV Demonstrator Vehicle, connecting equipment and virtual machines. Three Parvus DuraCOR small form factor mission computers on the HMMWV will display data on Curtiss-Wright rugged **AVDU (Advanced Video Display Unit)** and **GVDU (GVA (General Vehicle Architecture) Video Display Unit)** touchscreen displays.
- **CMOSS/MOSA Solutions:** Also featured on the HMMWV are the **3-slot 3U OpenVPX CMOSS/SOSA Starter Kit** system and **5-slot and 8-slot CMOSS/SOSA Chassis**. The CMOSS/SOSA Starter Kit hosts a [VPX3-687 VICTORY Network Ethernet switch](#) module, **VPX3-A-PNT** module with CSAC, IMU and GBGRAM Type-II SAASM/M-Code receiver, and [VPX3-1260 Intel 9th Gen Xeon Processor single board computer \(SBC\)](#). The 5-slot and 8-slot CMOSS/SOSA Chassis highlight Curtiss-Wright's expansive CMOSS/MOSA product portfolio relative to ground vehicles, and its ability to support the highest functional density using natural convection cooling. Curtiss-Wright's new CMOSS chassis are designed to meet the U.S. Army PEO Ground Combat Systems (GCS) Standardized A-Kit / Vehicle Envelope (SAVE), that provides standard internal mounting and physical interfaces for connecting CMOSS systems and radios to platforms. These fan-free chassis are ideal for

use in Ground Combat Vehicle, and Tactical Wheeled Vehicle Platforms, as well as high-performance ground or rotary wing processing applications.

- **Command Post Mobility:** In the vehicle, a **PacStar Smart Chassis** will be on display with [PacStar Secure Wireless Command Post Extension \(SWCP-X\)](#), demonstrating secure wireless connectivity between command post vehicles as well as secure wireless LAN capability for local wireless user devices. This system is managed by IQ-Core Crypto Manager Software for secure vehicle-to-vehicle (V2V) communications.
- **IQ-Core Software:** [IQ-Core Software](#) will be demonstrated running in dashboard mode, used to report network status and provide network management for embedded systems on the vehicle. IQ-Core Software features a GUI, which can display a map of the networked hardware on the vehicle. The GUI can display the network status of all the vehicle's embedded systems with a simple, single pane of glass solution.

In a demonstration of **Cloud-to-Tactical** Edge Connectivity the [PacStar Modular Data Center \(MDC\)](#) will be shown providing a small form factor (SFF) integrated solution for cloud-native requirements at the edge. Curtiss-Wright will host enterprise cloud scalability and flexibility with secure "STIG-grade" Kubernetes containers provided in collaboration with Rancher Government Solutions (RGS). Integration of Secure Containers across the enterprise, from any commercial or government fixed data center to the tactical edge, introduces operational advantages for pre-deployment planning and configuration, task re-organization during deployment, C2 On-The-Move, and redeployment to home station. The PacStar MDC provides a menu of small compute, storage, and hyper-scale hardware options to support any range of operations and any mission. As a further example of Cloud-Native services on PacStar MDC, Zero Trust Architecture (ZTA) capabilities from enterprise cloud to edge will be demonstrated in collaboration with ZScaler.

The [TCG BOSS](#) **TDL testing, simulation, and terminal emulation solution** will be shown emulating a MIDS-JTRS terminal, a Link 22 SNC, a VMF IDM, and a simulated TDL battlefield environment. Additionally, the [TCG HUNTR™ TDL Gateway](#), which supports translation and forwarding of multiple tactical data links (TDL) – including Link 16, Link 22, JREAP, VMF, CESMO, and Cursor-on-Target – will be demonstrated with the TCG BOSS driving the simulation.

Also on display, as a compelling example of how Curtiss-Wright is participating in the move to electrification across a broad range of air, land, and sea platforms, will be the **MAD-MAX Mechatronic Actuation and Turret Drive Stabilization Demonstrator**, a collaboration demonstration from Curtiss-Wright's Actuation Division. MAD-MAX features six different axis of motion, a Smart Actuator for door assist, rotary hinge actuation for lifting and lowering a ramp, and a Curtiss-Wright joystick to control the turret motor. Curtiss-Wright is supporting to drive the transition to electrical power currently underway across the Aerospace & Defense industry with new solutions that help accelerate the move away from fossil fuels and legacy hydro-mechanical system designs. Additionally, new high-voltage turret drive stabilization systems meet the rapidly growing requirements for increased performance and the ability to accelerate high-inertia loads to a precise position in the shortest possible time. These systems also enable common converter, distribution, and power management technology to be shared across a range of vehicle sizes.

For additional information about Curtiss-Wright MOSA technologies, please visit <http://www.curtisswrightds.com>, LinkedIn, and X (formerly Twitter) @CurtissWrightDS.

### **About Curtiss-Wright Corporation**

Curtiss-Wright Corporation (NYSE:CW) is a global integrated business that provides highly engineered products, solutions and services mainly to Aerospace & Defense markets, as well as critical technologies in demanding Commercial Power, Process and Industrial markets. We leverage a workforce of approximately 8,400 highly skilled employees who develop, design and build what we believe are the best engineered solutions to the markets we serve. Building on the heritage of Glenn Curtiss and the Wright brothers, Curtiss-Wright has a long tradition of providing innovative solutions through trusted customer relationships. For more information, visit <http://www.curtisswright.com>.

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