Curtiss-Wright Demonstrates Combined Video Management System and Secure Data Storage/Removal System

PARIS AIR SHOW, LE BOURGET – June 18, 2013 – Curtiss-Wright Controls Defense Solutions, a business group of Curtiss-Wright Controls, has successfully demonstrated the **Skyquest® VRD1 Video Management System (VMS)** and **Vortex™ Data Transport System (DTS)** working together to showcase an integrated solution for comprehensive control and display of video sensor data with support for secure, removable storage of that video. This solution is ideal for defense and aerospace system integrators whose applications require real-time viewing and recording of large amounts of high definition (HD) video data and require a method for storing and encrypting that data while being able to access it on-demand for post-mission analysis. It is designed for use in airborne surveillance, search and rescue, patrol applications.

The VRD1's extensive video I/O supports a wide variety of analog and digital formats and provides on-the-fly conversion, switching, recording, and network streaming of the platform's video data. Allowing the integrator to route all video through a VRD1, to connect all of the sources and destinations, reduces system complexity and maximizes flexibility while also reducing total mass: this VMS approach has saved more than 40 lbs. of cabling in previous applications.

The DTS Network Attached Storage (NAS) device supports high performance recording and playback of video over its Ethernet connection to a VRD1. When a VRD1 is combined with Curtiss-Wright's DTS, system designers are able to securely store and encrypt all of their video data on the turn-key DTS's 2.5" SATA solid state drive-based. This rugged NAS device is ideal for rugged applications that require the storage, removal, and transport of critical data such as cockpit data (mission, map, maintenance), ISR, and data from mobile applications (ground radar, ground mobile, or airborne ISR pods), heavy industrial applications (steel, refinery), and video/audio data collection.

"Combining our industry-leading Skyquest VMS video management technology with our Vortex DTS removable secure storage solution meets the needs of airborne system designers to ensure the security of critical data-at-rest, which is a growing concern for our defense and aerospace customers," said Lynn Bamford, senior vice president and general manager of Curtiss-Wright Controls Defense Solutions.

DTS Leverages Industry Standard 2.5" SATA SSDs

The DTS is uniquely designed to mitigate obsolescence and support extreme insertion cycles. Based on standard 2.5" SATA solid-state drives (SSDs), the DTS leverages the industrial base, enabling use of any widely available 2.5" SSDs. To support the long-lifecycle requirements of typical military programs, its Removable Memory Cartridges (RMCs) are designed for high-insertion applications with a non-proprietary 100,000 insertion-cycle connector for reliable operation mission after mission.

The standard DTS supports three (3) 128GB flash memory RMCs, with options for much larger disks. Each disk consumes only 2.5 Watts of power and weighs only 0.7 lbs. (317 grams). An RMC is small enough to fit in a shirt or flight-suit pocket. Error correction, wear-leveling, and bad block management are performed to ensure data integrity. Over-provisioning sets aside 7% of the NAND flash memory. SSDs can be provided by Curtiss-Wright, or optionally, an empty RMC can be purchased and the customer's own SSD can be used. The RMC can be easily removed from any Vortex DTS and installed into any other model of DTS to provide seamless full transfer of data between one or more networks in separate locations.

Support for Secure Data-At-Rest

The DTS is designed to support demanding military applications that require secure data-at-rest. To ensure the security of critical data, all data is passed through the DTS inline media encryption module prior to being read from or written to an RMC. The DTS encryption capability is modular, allowing options for no encryption, AES256-bit, or special designed encryption to meet program requirements.

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The standard DTS encryption module incorporates AES256-bit cryptographic algorithm and hardware that is NIST validated to FIPS 140-2. The encryption key can be passed to the encryption module by an outside agency or special key management concepts can be developed depending on the application.

About the VRD1

The air- or conduction-cooled VRD1 is a lightweight, compact subsystem. A single VRD1 unit combines six (6) channels of full resolution HD 30fps MPEG4 H.264 compression, video and audio recording with metadata/event markers, and Ethernet video distribution or storage to disk. A simple control interface provides an on-board or remote operator with complete access to the VRD1's wide range of VMS options and functionality. This powerful VMS supports up to 18 video inputs in a mix of different standards, including HD-SDI, RGB and DVI. These video inputs can then be easily routed to any of the VRD1's 12 video outputs for real-time viewing, or routed to the system's real-time HD video compression subsystem for recording or distribution over a standard Ethernet network.

For applications that require multiple video streams to be viewed simultaneously, the VRD1 has a real-time scaling engine that scales and positions up to four (4) inputs into a single video stream for viewing, recording or distribution.

Click here for more information on the Skyquest VRD1. Click here for more information on the Vortex DTS. Contact us today for more information or to learn more about our Skyquest family of aerial surveillance products or Vortex data storage solutions.

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About Curtiss-Wright Controls Defense Solutions

Curtiss-Wright Controls Defense Solutions is a long established technology leader in the development of rugged electronic modules and systems for defense applications. Curtiss-Wright serves as a technology and integration partner to its customers, providing a full range of advanced, highly engineered solutions from modular open systems approaches to fully custom optimized solutions. Our unmatched capabilities and product breadth span from industry standard based COTS modules to complete electronic subsystems. The company's modules and systems are currently deployed in a wide range of demanding defense & aerospace applications including C4ISR systems, unmanned subsystems, mission computing, fire control, turret stabilization, and recording & storage solutions. Additionally, the company's broad engineering capabilities combine systems, software, electrical, and mechanical design expertise with comprehensive program management and a broad range of life-cycle support services. For more information visit http://www.cwcdefense.com.

About Curtiss-Wright Controls, Inc.

Headquartered in Charlotte, NC, Curtiss-Wright Controls is the Controls segment of Curtiss-Wright Corporation and a leading designer and manufacturer of advanced technologies for niche actuation and drive applications, integrated sensors and controls, and electronic subsystems internationally for the aerospace, defense and industrial markets. For more information, visit http://www.cwcontrols.com.

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