

# **NEWS RELEASE**

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# Curtiss-Wright Demonstrates Fully Integrated Next Generation Flight Test System Solution

COTS FTI System Demo Showcases "Total System Solution" Ethernet-based Data Acquisition System with Industry's Smallest 10 GbE Recorder and Most Powerful and Future Ready DAS Solutions

INTERNATIONAL TELEMETERING CONFERENCE (ITC), BALLY'S HOTEL & CONVENTION CENTER, LAS VEGAS, NEVADA. (Booth #2327) – OCTOBER 21-24, 2019 – <u>Curtiss-Wright's</u>

Defense Solutions division today announced that its Aerospace Instrumentation (AI) group will present a live demonstration of a fully integrated next generation system-level flight test instrumentation (FTI) solution using current data acquisition technology in their booth (#2327) at the 2019 ITC Conference. The "Total System Solution" demo features Curtiss-Wright's industry-leading airborne data acquisition system (DAS), one of the most extensive, flexible, and widely installed FTI product families in the world. Supporting emerging new standards with Chapter 7 and TmNS components, the high-speed Ethernet-based architecture enables line-of-sight communications to enable flight test engineers to reconfigure test articles during the mission. For example, the data recorder, camera sources, parameters and image downlink bit-rates can be remotely modified. The demonstration highlights Curtiss-Wright's ability to provide customers with the full range of interoperable DAS system products and serve as a single source system FTI solution. It also showcases Curtiss-Wright's latest FTI hardware, including high-speed Axon™ ADAU DAUs, switches and recorders, and rugged IP cameras and multi-mode transceivers.

"We are very proud to showcase our next generation FTI system architecture, combining our industry leading networked from ground to air capabilities with an unmatched range of proven, leading FTI technologies, all working together in one integrated system," said Lynn Bamford, Senior

Vice President and General Manager, Curtiss-Wright Defense and Power. "This fully integrated system approach enables flight test customers to, for the first time, acquire a complete, future proof system solution from a single supplier."

For flight test engineers, one of the most daunting challenges is defining an FTI system that can be developed and installed quickly, reliably collects data on every single test flight, and provides the level of modularity and flexibility needed to easily adapt to evolving requirements, both during and after the development cycle. Curtiss-Wright's Commercial Off-The-Shelf (COTS) approach to FTI system integration is ideal for meeting the design challenges unique to flight test programs, easing the adoption of modern Ethernet networks, remote nodes, and wireless topologies that make system installation simpler and quicker. This COTS FTI approach speeds the integration of test applications while lowering program costs and schedule risks.

# The Next Generation "Total System Solution" FTI System Demo will include:

#### Axon ADAU

- The industry's fastest (380 Mbps over the backplane) DAU
- Compact and thermally optimized to operate without needing heatsinks
- o Remote mountable modules with 10 m link distance
- o TmNS, DARV3, Chap 10, iNET-X, IENA all supported

#### • nREC-7000: 10GbE Airborne Network Flight Test Recorder

- o Flight proven, intelligent, network-based IP packet recorder and file server
- o Up to 1800 MBps sustained, 10G acquisition and recording at full line rate
- Leading data format support including DARv3, Chapter 10, iNET-X, IENA, PCAP, etc.

#### NSW-16GT Rugged 16-Port Airborne Ethernet Switch

- 4 x 10 Gigabit Ethernet (10 GbE), 12 x Gigabit Ethernet (GbE)
- Supports IEEE-1588v2 and IEEE-1588v1 time synchronization protocols
- Time synchronizes all nodes of the network including future, current, and legacy equipment

#### TTC nDAU

- Compatible with next generation AXON ADAU
- Support for TmNS data format
- Wide range of modules and capabilities

#### Network IP Camera

H.264 or H.265 encoded video is captured directly onto the network

#### Multiband Transmitter

- o L, S & C-Band in one unit
- Ultra-high efficiency and LDPC and Space Time Configuration available (including a combined configuration)

## Network Gateway

- Combines CH7 and CH4 data for maximum bitrate efficiency when combing asynchronous and synchronous data.
- o Can "cherry-pick" data from all generations of Curtiss-Wright's Ethernet DAUs

#### TmNS and Control

- TmNS compatible Bi-directional Ethernet link
- Control and reconfigure hardware e.g. Change frequency of transmitters, Switch video streams, recorder control

#### Ground Station Receiver

- Pairs with the Multiband Transmitter
- Diversity Branch Selector

### • Configuration Software

One software to configure entire system

#### Ground Station Software

Ground system to view Ethernet, CH4 and CH7 data

#### The Benefits of Complete DAU System Solutions

Axon systems are easy to integrate and expand. Multiple Axon modules can be integrated into a single Axon chassis. The Axon chassis, Axon user modules, and Axonite remote housing are designed to work with Curtiss-Wright's TTC nDAU, TTC MnACQ, TTC MnHSD and KAM-500 DAU family of products, including high-speed cameras, data recorders, and switches. Axon DAUs provide the most powerful and modern solution on the market by combining unprecedented flexibility with outstanding reliability for demanding applications. Axon modules and chassis, now available in 6, 9, and 16-slot configurations, enable FTI engineers to quickly configure and deploy the vast amounts of data acquisition required to support demanding flight test, missile test, and space developmental/operation flight instrumentation programs. Axon systems are ideal for use in flight test, system monitoring, power system upgrades, or life extension programs.

# **About the Curtiss-Wright Aerospace Instrumentation Group**

In 2017, Curtiss-Wright integrated its Dublin (Ireland) business unit (formally Acra Control Ltd.) with its Newtown (Pennsylvania, USA) business unit (formally Teletronics Technology Corporation), to form the Aerospace Instrumentation group. This integration created the industry's broadest and most experienced single source for customers of commercial and defense aerospace instrumentation system solutions. With the merger of the two business units, Curtiss-Wright now supports more aerospace flight test customers, platforms, and programs than any other competitor around the world. What's more, with its increased resources and global reach, the company is able to significantly expand the availability of its unmatched quality and customer support, while bringing even larger system-level solutions to market.

Sales inquiries: Please forward all Sales and reader service inquiries to ds@curtisswright.com. For more information about the Curtiss-Wrights 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 9,000 people worldwide. For more information, visit www.curtisswright.com.

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