SAN DIEGO — L-3 Telemetry-West (L-3 TW) recently delivered multiple multifunction telemetry units (MFT1000) to the U.S. Air Force’s 96th Test Wing at Eglin Air Force Base, Fla., in support of its Mission Control Room upgrade program. Delivery included customer training and integration test support. The MFT1000 will assist the 96th Test Wing in validating the performance of mission-critical aircraft and airborne weapon systems for the warfighter.

“Our primary design goal was to address the dynamic needs of modern telemetry test systems, while still supporting legacy interfaces, to help our customers easily transition to enhanced test environments. The MFT1000 addresses these needs,” said Kevin Ireland, director of business development for ground telemetry products at L-3 TW. “We are committed to providing a seamless upgrade path for our customers that ensures flawless performance with existing heritage systems.”

The versatility of the MFT1000 is as ideally suited to the 96th Test Wing’s mission as it is for the mission control room or the flight line. Its high-density footprint provides a compact, yet powerful combination of performance and flexibility. In addition, the MFT1000 assures high accuracy with 1-microsecond time-tagging resolution for both real-time or playback applications.

For more information, please visit L-3com.com/TW.
AIRBORNE FLIGHT TERMINATION RECEIVER (AFTR)
The Advanced Flight Termination Receiver (AFTR) is a miniature, state-of-the-art receiver/decoder featuring three- or four-channel tone logic and redundant fail-safe circuitry. Its small size (4.5 cubic inches) and light weight (5 ounces) is consistent with today’s missile programs that require smaller and lighter weight components.

The AFTR is an evolutionary design based on 33 years of range safety experience and meets the design and test requirements of both IRIG-313-01 and RCC-319-07 documents.

For more information, please visit L-3com.com/TW.

FEATURES
- Suited for missiles, targets and UAV programs
- Digital radio that manages analog tones
- All solid-state design and fail-safe operation
- RCC-319-07 compliant
  - Standard: RCC-319-07 stress and derating
  - Optional: RCC-319-07 parts program compliant

CXS-1000 — NEXT-GENERATION SOFTWARE-DEFINED RADIO
L-3 Telemetry-West (L-3 TW) introduces the next-generation software-defined CXS-1000 transceiver.

This multi-band, multi-waveform telemetry and low-rate mission data transceiver features small size, light weight and excellent thermal design for today’s critical applications.

For more information, please visit L-3com.com/TW.

APPLICATIONS
- Spacecraft communications
- RPV communications
- Missile and flight test

FEATURES
- 5 or 10 W power output; data rate to 20 Mbps
- Multiple waveforms and spread options
- Encoding/decoding
- Multiple-band operation and UHF to Ka-band configurations

HRT-920 — HIGH-RELIABILITY TRANSMITTER
L-3 Telemetry-West (L-3 TW) unveils the next-generation high-reliability miniature S-Band software-defined multi-waveform telemetry transmitter.

It features small size, light weight, EMI shielding and excellent thermal design for airborne applications.

The HRT-920 achieves new breakthroughs in high-reliability performance and price by utilizing simplified internal construction and advanced automated manufacturing techniques.

For more information, please visit L-3com.com/TW.

APPLICATIONS
- Launch vehicles
- Missile defense
- Weapons

FEATURES
- Programmable RF output power to 20W
- Synthesized channel selection
- Size: 2.5” L x 3.5” W x .811” H
- PCM/FM, SOQPSK
- PM/PSK BPSK
- QPSK, Multi-h CPM
- IRIG 106-11
- Tailored MIL-STD-461F EMI
L-3 TE DEVELOPS TWO KEY NETWORK MODULES FOR THE NETDAS PRODUCT LINE

L-3 Telemetry-East (L-3 TE) has developed two key network modules for its NetDAS product line, significantly improving the functionality of networked data acquisition systems.

The NPG-801 Network to PCM Gateway enables networked data acquisition systems to operate within a traditional PCM infrastructure. It does so by collecting specified data from multiple network data streams, organizing, time correlating and merging that data into a single PCM output stream for a transmitter or local recorder. Each NPG module can concurrently generate a Chapter 10 network stream matching its PCM output. The NPG-801 also includes system management capabilities that can be used to set up, control and acquire status from the various devices on the network.

The NES-806 Ethernet Switch module is a managed Layer 2+ embedded Gigabit Ethernet switch providing six 10/100/1000 Mbps auto-sensing ports. Multiple NES-806 modules can be placed into a single stack to provide additional network ports, or modules can be distributed throughout the system to provide Ethernet connectivity, where required.

The switch incorporates comprehensive system management functionality, including VLAN and QoS support, allowing time-critical data to be efficiently distributed throughout the network.

For more information, please visit L-3com.com/TE.

CSS-905A — S-BAND TELEMETRY TRANSMITTER

The next-generation software-defined CSS-905A miniature S-Band multi-waveform telemetry transmitter features small size, light weight, and excellent thermal design for today’s critical airborne applications.

The transmitter can be provided with common analog and digital modulation waveforms, as well as user-defined custom implementations. Digital and analog data interfaces are provided, as well as an IRIG serial control and status interface. The transmitter meets IRIG 106-11 and tailored MIL-STD-461F EMI requirements.

For more information, please visit L-3com.com/TW.

FEATURES

- Programmable RF Output Power to 5 or 10W
- Multimode — supports ARTM Tier 0,1,2; PCM/FM; SOQPSK; and Multi-h CPM
- Multiple waveforms
- Size: 3” L x 2” W x .75” H
- Meets IRIG 106-11 & tailored MIL-STD-461F EMI requirements
- Filtered RF output to avoid GPS and FTR desensitizing/jamming — 5 to 10 W selectable

VISTA™ CHAPTER 10 SUPPORT

L-3 Telemetry-West (L-3 TW) now offers the capability to record and play back (archive) data in IRIG 106 Chapter 10 format through its flight test application, Vista™. This capability enables the user to record and play back PCM/time data in IRIG 106 Chapter 10 format and makes the software compatible with L-3 TW’s MFT1000 Networked Multifunction Telemetry Unit. Both the L-3 TW Vista software and MFT1000 PCIe Multifunction Telemetry Module products now provide Chapter 10 archiving.

The MFT1000 provides the capability to decode a PCM stream up to 40 Mbps and natively create Chapter 10 archive files, while playback of the archived Chapter 10 data file is displayed via the Vista Chapter 10 Software Player application.

Data types archived in Chapter 10 format: PCM Packet Unpacked (16-bit alignment mode), PCM Packet Packed (16-bit alignment mode), PCM Packet Throughput (16-bit alignment mode), Time Packet
NEW PRODUCTS

NOVASOURCE G7 — RF SIGNAL SOURCE FROM L-3 SOUTHERN CALIFORNIA MICROWAVE

L-3 Southern California Microwave (L-3 SCM) introduces the NovaSource G7 Series of RF Signal Sources. This new series will provide a wider operating frequency range and higher RF output power than the previous M2 and G6 Series.

The first G7 product offering is the NS4-0800102, covering 800 to 3,000 MHz. It embodies several functional enhancements, such as a USB programming interface and USB power capability, +18 dBm typical RF output power, and internal/external reference auto-detect.

The NovaSource G7 Series of signal generators fills the void in the communications industry for small, low-cost and easy-to-use RF synthesizers with wide tuning range capability. The generators are used in applications where flexibility and accurate frequency generation are required, and they provide a complete turnkey solution for many frequency synthesizer applications.

The NovaSource G7 can replace equipment costing 10 to 20 times more and can be used in a variety of applications, such as Embedded RF Frequency Reference, Product Development, Production Test, General Lab and Training.

Low-priced and available for quick delivery, NovaSource G7 RF Signal Sources are a complete solution for many frequency synthesizer applications.

For more information, please visit L-3com.com/SCM.

APPLICATIONS

- Embedded RF frequency reference
- Product development
- Production test
- General lab
- Training

FEATURES

- PC-controllable (software included)
- Fully programmable via USB or RS-232 interface
- Settings saved in non-volatile memory
- Supports stand-alone operation
- Low phase noise
- Internal/external reference auto-detect

L-3 TELEMETRY-EAST CONTINUES TO EXPAND THE DMTS-4001 TELEMETRY RECEIVER’S Capabilities

L-3 Telemetry-East (L-3 TE) is adding several new capabilities to its state-of-the-art PCI card receiver. Already offered in several configurations and system housings, the DMTS will offer improved dynamic range and tracking performance plus additional I/O, giving users the flexibility to utilize the DMTS in a variety of telemetry applications and tracking stations.

L-3 TE will display the DMTS-4001 at the upcoming International Telemetering Conference in San Diego, CA, October 21—23.

The display will include two configurations:

- Integrated into a ruggedized 2U rackmount PC
- Packaged as a complete portable ground station using L-3’s Vista™ software

For more information, please visit L-3com.com/TE.

L-3 TELEMETRY & RF PRODUCTS
L-3 is a worldwide leader in missile defense, munitions and launch vehicle support, with end-to-end, high-reliability products and capabilities, including complete systems, subsystems and turnkey solutions.

Please visit us in the Golden Ballroom, Booth 317.

L-3com.com
Iridium Passes Two Major Iridium NEXT Milestones with Completion of System Control Segment, Launch and Early Operations Center

THE BOEING COMPANY, L-3 TELEMETRY-WEST FULFILL SATELLITE READINESS REQUIREMENTS, IRI DIUM NEXT SATELLITES OPERATIONALLY READY FOR LAUNCH

MCLEAN, Va., Aug. 27, 2014 (GLOBE NEWSWIRE) — Iridium Communications Inc. (Nasdaq:IRDM) today announced the successful upgrade of its System Control Segment (SCS) and completion of its Launch and Early Operations (LEOP) control center for Iridium NEXT, the largest new commercial satellite constellation in the world.

Iridium NEXT Mission Team partner L-3 Telemetry-West (L-3 TW) played a key role in the upgrade project with their InControl™ software suite. InControl is providing the core satellite command and control functions allowing Iridium NEXT satellites to be efficiently controlled through automation, an extensive application programming interface (API), and a user-centric fleet management design.

The overall development of the SCS is performed by The Boeing Company, which is a long-time Iridium operations partner. Boeing will continue operating the constellation through its transition to Iridium NEXT and beyond as the company’s operations and maintenance provider.

“Our team has been working side by side with Iridium and Boeing to develop the technical capabilities to support Iridium NEXT,” said Jim Presnell vice president of engineering at L-3 TW. “This is a significant accomplishment on the road to launch Iridium NEXT, and we’re proud to be a part of the continued success.”

The completion of the buildout for the LEOP control center marks another significant milestone toward the launch of Iridium NEXT. In the LEOP facility, the Iridium NEXT satellites will be managed after separation from the launch vehicle, tested to ensure on-orbit functionality, and then maneuvered and monitored while they are transferred into the mission constellation.

The new facility was strategically co-located with the Iridium Mission Control Center to create a cohesive site for operations, enabling greater efficiencies and providing synergy across the teams for a seamless transition to the core Iridium mission.

“With the SCS upgrade and completion of the LEOP control facility, we’ve passed two huge launch milestones and are now operationally ready for the launch of Iridium NEXT,” said Scott Smith, chief operating officer, Iridium Communications Inc. “L-3 TW and Boeing have done an outstanding job making this possible. Together, we’ve built the infrastructure that will be operating the satellites from launch through the entire Iridium NEXT mission.”

The Iridium NEXT satellite network will consist of 66 in-orbit satellites and a number of in-orbit spares. The constellation is expected to begin launching in 2015 and will offer greater bandwidth and data speeds when fully operational in 2017.

For more information on Iridium NEXT, go to www.Iridium.com.
WASHINGTON, DC August 13, 2014 — A NASA satellite launched in early July to track carbon dioxide in Earth’s atmosphere has reached its operational orbit of 705 kilometers, according to an Aug. 12 press release from Orbital Sciences Corp., the Dulles, Virginia-based builder of the Orbiting Carbon Observatory (OCO)-2. From its final, near-polar, sun-synchronous orbit, OCO-2 will map sources of carbon dioxide emissions, as well as the locations of so-called carbon sinks where reservoirs of the greenhouse gas form. Including spacecraft design, launch and its two-year primary mission, OCO-2 is costing NASA $467.7 million. Credit: Dan Leone, SpaceNews.com

ULTRA ATLAS 5 ROCKET SUCCESSFULLY LAUNCHES GPS IIF-7 SATELLITE

August 1, 2014 — The third GPS launch of 2014 took place August 1, with the United Launch Alliance (ULA) Atlas V lofting the GPS IIF-7 satellite into space. Liftoff took place from Cape Canaveral Air Force Station’s Space Launch Complex 41 (SLC-41). GPS IIF-7 forms part of the U.S. Air Force’s Global Positioning System (GPS); a program aimed at providing worldwide navigational data which began in the 1970s. Credit: Chris Bergin, NASASpaceflight.com

NASA’S OCO-2 SATELLITE REACHES OPERATIONAL ORBIT

WASHINGTON, DC August 13, 2014 — A NASA satellite launched in early July to track carbon dioxide in Earth’s atmosphere has reached its operational orbit of 705 kilometers, according to an Aug. 12 press release from Orbital Sciences Corp., the Dulles, Virginia-based builder of the Orbiting Carbon Observatory (OCO)-2. From its final, near-polar, sun-synchronous orbit, OCO-2 will map sources of carbon dioxide emissions, as well as the locations of so-called carbon sinks where reservoirs of the greenhouse gas form. Including spacecraft design, launch and its two-year primary mission, OCO-2 is costing NASA $467.7 million. Credit: Dan Leone, SpaceNews.com

ULA DELTA IV SUCCESSFULLY LAUNCHES AFSPC-4 MISSION

July 28, 2014 — United Launch Alliance’s Delta IV rocket successfully deployed a pair of space surveillance satellites and a technology demonstrator for the U.S. Air Force. The Air Force Space Command 4 (AFSPC-4) mission comprises two Geosynchronous Space Situational Awareness Program (GSSAP) spacecraft and the Air Force Research Lab’s Automated Navigation and Guidance Experiment for Local Space (ANGELS). GSSAP is a four-satellite constellation being developed by the U.S. Air Force to conduct visual monitoring of geosynchronous satellites. The first two spacecraft are being carried by today’s launch, with the remaining two expected to ride an Atlas V into orbit next year. Credit: William Graham, NASASpaceflight.com

L-3 TELEMETRY-WEST ACHIEVES DEFENSE SECURITY SERVICE’S HIGHEST INSPECTION RATING

San Diego, CA — L-3 Telemetry-West (L-3 TW) achieved the highest rating attainable during an annual Defense Security Service (DSS) inspection in August. L-3 TW achieved a new milestone in being awarded its first “Superior” rating, the highest possible rating category. Only 8.3% of cleared defense contractors achieve this rating. The Defense Security Service (DSS) is an agency of the Department of Defense (DoD) located in Quantico, Virginia, with field offices throughout the United States. The Under Secretary of Defense for Intelligence provides authority, direction and control over DSS. DSS provides the military services, defense agencies, 27 federal agencies and approximately 13,500 cleared contractor facilities with security support services and contributes to national security by serving as an interface between the government and cleared industry businesses. For more information on the DSS, please visit www.DSS.mil.
L-3 TELEMETRY & RF PRODUCTS

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L-3 Advanced Technology & Systems (L-3 AT&S) is a provider of SIGINT systems engineering, specific emitter identification, novel geolocation techniques, RF polarimeter processing, technical studies and analyses, software development and rapid prototyping.

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L-3 Telemetry-East (L-3 TE) is a preeminent supplier of airborne telemetry products and systems for the aircraft and missile flight test, airborne telemetry and ground receiver markets. Additionally, L-3 TE is a supplier/integrator of quality telecommunications products and end-to-end communications systems.

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L-3 Telemetry-West (L-3 TW) is a premier provider of flight hardware and systems solutions for telemetry, tracking, command & control; flight termination; and secure mission data transmission in the satellite, launch vehicle, weapons, aircraft and UAV markets.
L-3 Southern California Microwave (L-3 SCM) is a manufacturer of microwave transmitters, receivers, power amplifiers, repeaters and antennas for military test ranges, UAVs, RPVs, UGVs, robots and law enforcement agencies.

FOCUS | OCTOBER 2014  Published for customers of L-3 Telemetry & RF Products, which consists of: Advanced Technology & Systems, Southern California Microwave, Telemetry-East and Telemetry-West.
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