



FOCUS

newsletter from



Telemetry & RF Products

MARCH 2011

NEW SPACE ACQUISITION STRATEGY KEEPS L-3 TELEMETRY-WEST IN ORBIT

A new procurement approach focusing on a new block buy strategy for space-related purchases (satellites) are estimated to generate at least 10% in savings for the Air Force, and keeping L-3 Telemetry-West (L-3 TW) products in space.

The approach is part of the Pentagon's overall drive to become more efficient and could eventually be used for other satellite programs. Three programs being looked at for potential bulk buys include, Lockheed Martin's Space-Based Infrared System (SBIRS) and Advanced Extremely High Frequency (AEHF) as well as Boeing's Wide-band Global Satcom (WGS) spacecraft. This approach bodes well for L-3 TW who has successfully delivered products for both SBIRS and AEHF, and will be able to ensure cost effective solutions enabled by continued efficiencies through continuous production.

Lockheed Martin (LM) is currently on contract to produce 4 satellites for the AEHF constellation, and the a fourth satellite for the SBIRS constellation. The Air Force is now considering purchasing a fifth and sixth satellite for both the AEHF and SBIRS programs.

“About 60% of every contract dollar for SBIR goes to subcontractors. A buy of two satellites would provide stability for parts suppliers, avoiding production gaps.”

Col Roger Teague, Sbir Program Director at SMC, 12/13/10, AviationWeek.com



SBIRS Satellite

Larry Dobbs, Director of Spacecraft Systems for L-3 TW says, “Multiple buys of follow-on satellites really enables a “Win/Win” situation for both our customers and us. We are able to realize major cost savings for the customer and guard against parts obsolescence with joint material purchases for future needed hardware. Additionally, it helps stabilize our workforce with the proper experience to give us better on-time delivery.”

Savings for these programs would exist on paper for years and not be realized for some time. It will however, set the stage for smarter procurement in the years to come, either for these designs or future programs.

*Butler, Amy. “Bulking Up” Aviation Week & Space Technology 13 December 2010; 30-31
Brinton, Turner. “Pentagon Focused on Steady Satellite Production” Space News 24 January 2011*

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Voice of the Customer

How are we doing?
Please let us know...

L-3COM.COM/TW/VOC

UPCOMING LAUNCHES WITH OUR PRODUCTS ON BOARD



SUNNYVALE, Calif., February 16th, 2011 – The U.S. Air Force/Lockheed-led **Space Based Infrared System (SBIRS)** team has finished final installations on the first geosynchronous (GEO-1) satellite and successfully completed the spacecraft's final factory confidence test in preparation for delivery to the launch site. SBIRS GEO-1, with its highly sophisticated scanning and staring sensors, will provide the nation with significantly improved missile warning capabilities and support other critical missions simultaneously including missile defense, technical intelligence and battle space awareness.

Launch is scheduled for May 2011. For more information, go to Lockheedmartin.com



ORS-1 satellite
Credit: Satnews.com

On **May 20, 2011** The Air Force Minotaur 1 rocket is planned to launch the Operationally Responsive Space 1, or ORS 1, satellite. ORS 1 will support the military's intelligence, surveillance and reconnaissance needs by hosting an innovative sensor system.

The spacecraft is needed to provide a new layer of electro-optical and infrared reconnaissance to airborne collectors, such as unmanned aerial systems and high-altitude aircraft, as well as to the sophisticated national intelligence satellites overhead.

For more information, go to Spaceflightnow.com.

COMPLETE SATELLITE SOLUTIONS

Space-Qualified Onboard Hardware for Any Mission

InControl
Command & Control Software for AI&T and On-Orbit Operations

Earth photo courtesy of NASA

From our high-reliability, flight-proven space products to the world's leading satellite command and control software, L-3 has your space mission solution. To learn more, go to L-3com.com/TW.

Please visit us at Satellite 2011 in Booth 501.

Telemetry-West L-3com.com

Q&A WITH L-3 TELEMETRY-WEST

L-3 Telemetry-West's (L-3 TW) Director of Business Development for Spacecraft Ground System Products is Paul Blanchard out of the Denver, CO office. We asked Mr. Blanchard about the industry.

WHAT ARE THE PRIMARY FOCUS AREAS FOR THE GROUND SPACE PRODUCT LINE AND WHAT DIFFERENTIATES L-3 TW FROM YOUR COMPETITORS?

Answer: Primary focus areas include (1) providing an open system that utilizes well defined API's and non-proprietary protocols and (2) supporting customer deliveries with reduced program timelines.

InControl™ stores command and telemetry database formats in XML files while providing a well defined Application Programming Interface (API). This allows for easy integration into existing operations while providing for custom written user functions. This gives customers greater control over their system. In the area of program timelines, there is an industry belief that a Satellite Command and Control System takes a minimum of 18 months to complete, and more commonly can take upwards of 2-3 years. We've been very successful at reducing these timelines thus reducing overall program cost.

WHAT ARE SOME OF THE MAIN TRENDS YOU SEE AND WHAT ARE YOU DOING TO PREPARE FOR THEM?

Answer: As with many industries, the satellite operators of the world continue to strive to do more with less. In the world of satellite operations this means primarily using fewer operators to control new and existing fleets. InControl™ continues to add automation capabilities to its core feature set that allow for fewer operators in the control center.

Another trend is customers asking for the ability to continually upgrade hardware and software platforms in order to take advantage of improving technologies. They are also looking to take advantage of emerging computing environments, such as virtualization and shared resources.

To meet this need, InControl™ continues to provide a platform independent system that is tested on the latest hardware/software platforms, ensuring customers the ability to upgrade in a timely manner.

WHAT ACCOMPLISHMENTS OVER THE LAST YEAR ARE YOU MOST PROUD OF WITHIN YOUR ORGANIZATION?

Answer: We are currently working with ORBCOMM to transition their on-orbit fleet of 28 satellites to the newly delivered InControl™ system. This contract was awarded in March of 2010, and now, barely a year later, we are prepared to take over operating their fleet. On this program, InControl™ will support one of the largest satellite fleets worldwide.

In the near future, ORBCOMM will be adding 18 ORBCOMM Generation 2 (OG2) satellites to this system and InControl™ is fully capable of supporting even a larger fleet.



Paul Blanchard
Director, Business
Development Spacecraft
Ground Systems
L-3 Telemetry-West

ADDING TO YOUR FLEET?

YOU NEED InControl

Let L-3's InControl™ support your new satellite as well as the operations of your on-orbit fleet. Upgrade now!
To learn more, go to L-3com.com/TW/InControl.

Telemetry-West  L-3com.com

AIRBORNE TELEMETRY



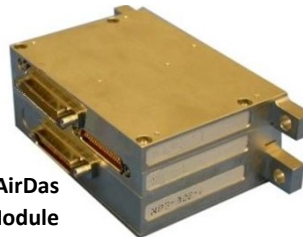
L-3 TELEMETRY-EAST ADDS NEW DATA STORAGE MODULE TO NETDAS/AIRDAS

L-3 Telemetry-East (L-3 TE) is adding a compact, lightweight and high-capacity data storage capability to its popular NetDAS and AirDAS product lines. The new Data Storage Module (DSM) can be employed either as a miniature stand-alone recorder, or as a simple add-on to a fully functional Data Acquisition Unit (DAU) or Data Acquisition System (DAS).

The new DSM utilizes rugged off-the-shelf, 1.8-inch, Solid State Drive (SSD), removable storage media, providing up to 256 Gigabytes of storage capacity per module. Multiple SSDs may be used within a single system, further expanding capacity up to 1 Terabyte and delivering very low cost-per-Gigabyte.

The new module may be used with L-3 TE's full suite of NetDAS/AirDAS data acquisition modules, including A429, A664, MIL-STD-1553, Video/Audio Compression, and various analog modules, to create a fully integrated data acquisition and recording system. The new DSM also allows data to be stored and retrieved over a standard 10/100/1000 Ethernet bus.

A NetDAS-based version of the device has been selected by the U.S. Government's integrated Network Enhanced Telemetry (iNET) program as a "Latency/Throughput Critical Recorder" (LTC Recorder), which will communicate and interact on a network as prescribed in the emergent iNET standards. Deliveries begin mid-2011.



NetDas/AirDas
Data Storage Module

L-3 TELEMETRY-WEST WINS CRITICAL WEAPONS PROGRAM CONTRACTS

L-3 Telemetry-West (L-3 TW) recently won significant telemetry hardware content on two US Department of Defense weapons programs. Both programs will utilize the PCM330E encoder.

The PCM330E is a 4th generation, sub-miniature programmable data acquisition system, especially suited to today's small weapons and UAS tactical and flight test applications. Driven by customer demands for increased functionality, performance and channel density, the PCM330E is the encoder customers are choosing when they need a small size, high data rate, high performance tolerances and successful in-flight performance product.

With the PCM330E's flight heritage based on the highly successful PCM300 & 600 families of data acquisition products (thousands have been provided for smart weapons, UAS and launch vehicle programs), the PCM330E brings unparalleled acquisition capabilities while continuing to set new standards for size, weight and power constrained applications.

Calvin Washington, L-3 TW Airborne Product Line Director says, "These contract wins display proven market acceptance for L-3 TW in delivering advanced capabilities to acquire, convert and process today's high data rate signals. The PCM330E provides a flexible, high performance platform, supported by state-of-the-art signal conditioning for the most demanding applications."

These products have a huge range of proven applications, are highly flexible and have competitive performance/price points that enhance operations, whether replacing legacy equipment, expanding existing capabilities or researching new horizons for the first time.

For more information, see L-3com.com/tw/products/airborne



PCM330E
Data Acquisition
System

REP FOCUS



VIC MYERS ASSOCIATES, INC.
Instrumentation & Communication Solutions

ARIZONA | COLORADO | IDAHO (SOUTH) | MONTANA | NEVADA (SOUTH) | NEW MEXICO | TEXAS (EL PASO) | UTAH | WYOMING

Vic Myers Association, Inc., (VMA) headquartered in Albuquerque, New Mexico was formed to provide quality representation of instrumentation products representing the Rocky Mountain States.

VMA signed its first contract with L-3 Telemetry & RF Products (L-3 T&RF Products (which includes Telemetry-West, Telemetry-East and Southern California Microwave)) previously Loral T&I in March of 1994. A formal rep agreement was signed in February of 2003 and they have represented L-3 T&RF Products ever since. Additional L-3 divisions represented include: L-3 Datron, L-3 Narda-West, L-3 Nova Engineering and L-3 Space and Navigation.

Mark Myers, President of VMA says, "We have been successful selling airborne products including Transmitters, Encoders, Flight Termination Receivers and Video Compression Systems from L-3 TW and TE. On the ground we have done well with 550/Avalon, board based MFT products and telemetry receivers. We also have new opportunities for ADAS."

He continues to say the sales of L-3 T&RF Products space qualified communication products has been very good and the Satellite Command and Control software, Incontrol™, outlook is positive.

For over 30 years VMA has had a successful track record with their key accounts. vicmyers.com

L-3 T&RF PRODUCTS REPRESENTED BY VMA

Airborne & Ground Products Transmitters, Transponders, Power Amplifiers, PCM Encoders, Secure Products, High-Rate Space Data Receivers/Transmitters, Modulators/Demodulators, Bit Syncs, Data Acquisition Systems, Imaging/Remote Sensing Space Data Reception, Microdyne RF & Telemetry Receivers, Tracking Receivers, QPSK, SQPSK, SGLS Modulators/Demodulators, Combiners, Signal Simulators, Integrated Systems, Encoders, Video Compression Systems, Terrestrial HF & Microwave Radios

Space Products T&C Satellite Transponders and Transmitters, Telemetry Receivers, High-Power Amplifiers, Turnkey Satellite TT&C Systems, Automated Satellite Command & Control Software and Turnkey Control Center Systems Integration

MEMBER OF THE ELECTRONICS REPRESENTATIVES ASSOCIATION



L-3 GIVES BACK

L-3 TELEMETRY-WEST (TW) & SOUTHERN CALIFORNIA MICROWAVE (SCM) DONATE GOODS DURING HOLIDAY SEASON

L-3 TW and SCM donated goods & money to various local charity's throughout the 2010 holiday season including:

Hand Up Youth Food Pantry— HANDUP Youth Food Pantry at Jewish Family Service is an innovative project run by a committee comprised of dynamic San Diego teenagers. The food pantry distributes over 850 food bags per month. Weekly distributions are made at Ohr Shalom and once per month at Camp Pendleton and Murphy Canyon military housing areas, where the Hand Up youth also provide activities for military children. handupfoodpantry.com

Rady Children's Hospital — Rady Children's Hospital is the San Diego region's only designated pediatric trauma center and the only area hospital dedicated solely to pediatric care. L-3 donated \$4,700 to this fine institution. The funds were received from the 2010 Holiday Party silent auction and the generous donations of our employees. L-3 TW/SCM are part of the 150 contributors that make up the Rady Miracle Maker program. chsd.org



Toys for Tots — Marine Toys for Tots Foundation assists the U. S. Marine Corps in providing a tangible sign of hope to economically disadvantaged children at Christmas. This assistance includes supporting the U. S. Marine Corps Reserve Toys for Tots Program by raising funds to provide toys to supplement the collections of local Toys for Tots campaigns, to provide promotional and support material and defray the costs of conducting annual Toys for Tots campaigns. toysfortots.org



RECENT ACTIVITIES

L-3 AT THE INTERNATIONAL TELEMETERING CONFERENCE 2010...

JOE SULEWSKI OF L-3 TELEMETRY-EAST WINS BEST PAPER AWARD AT ITC 2010

Congratulations to Joe Sulewski of L-3 Telemetry-East (L-3 TE) on winning the Lawrence Rauch Award at the 2010 International Telemetry Conference (ITC) last October in San Diego, CA.

Joe and his co-authors John Hamilton of Knowledge Based Systems, Inc. (KBSI); Timothy Darr of KBSI; Dr. Ronald Fernandes of KBSI; and Dr. Charles Jones of Edwards Air Force Base; wrote the award-winning paper titled, *"Instrumentation Hardware Abstraction Language (IHAL) and Web Service Interfaces to Vendor Configuration Engines"*.

The Lawrence Rauch Award recognizes the best paper on telemetry standards, as determined by the Telemetry Standards Coordination Committee. Mr. Sulewski, who has been with L-3 TE for four years, is an active member of the iNET Standards Working Group and the Vehicular Instrumentation/Transducer Committee of the Range Commanders Council Telemetry Group.

For more information, go to telemetry.org/pages/achievements/2010_awards.php



L-3 RAISES AWARENESS FOR HEART DISEASE

SAN DIEGO, CA., February 4, 2011 – L-3 Telemetry-West (L-3 TW) employees wore red during heart disease month bringing awareness to the national campaign for cardiovascular disease in women.

In 2004, Cardiovascular disease claimed the lives of nearly 500,000 American women each year, yet women were not paying attention.

To dispel the myths and raise awareness of heart disease as the number one killer of women, the American Heart Association created *Go Red For Women* – a passionate, emotional, social initiative designed to empower women to take charge of their heart health. goredforwomen.org



UPCOMING EVENTS

L-3 Telemetry & RF Products
Trade Show Schedule | Spring 2011

European Telemetry & Test Conference
June 13-16 | Toulouse, France

Satellite

Booth #501
March 15-17 | Washington, D.C.

Reinventing Space

Booth #20
May 2-5 | El Segundo, CA

National Space Symposium

Booth #108
April 11-14 | Colorado Springs, CO

ITEA Test Instrumentation Workshop

Booth #204
May 9-12 | Las Vegas, NV

Army Aviation Association of America (AAAA)

Booth #126
April 17-20 | Nashville, TN

Special Operation Forces Industry Conference (SOFIC)

Booth #1404
May 16-18 | Tampa, FL

ITEA Test Week

Booth #134
June 13-16 | Huntsville, AL





MARCH 2011

L-3 TELEMETRY & RF PRODUCTS GROUP CONSISTS OF THE FOLLOWING COMPANIES



L-3 Advanced Technology & Systems

355 Ravendale Drive | Mountain View, CA 94043

Phone: 650-961-9400 | Website: L-3com.com/ATS

L-3 Advanced Technology & Systems is a provider of SIGINT Systems Engineering, Specific Emitter Identification, Novel Geolocation Techniques, RF Polarimeter Processing, Technical Studies & Analyses, Software Development, and Rapid Prototyping.



L-3 Southern California Microwave

2732 Via Orange Way, Suite E | Spring Valley, CA 91978

Phone: 619-670-3414 | Website: L-3com.com/SCM

L-3 Southern California Microwave is a leading manufacturer of microwave transmitters, receivers, power amplifiers, repeaters and antennas for military test ranges, UAVs, RPVs, UGVs, robots and law enforcement agencies. Additionally, L-3 SCM provides standard FM PCM telemetry systems.



L-3 Telemetry-East

1515 Grundy's Lane | Bristol, PA 19007

Phone: 267-545-7000 | Website: L-3com.com/TE

L-3 Telemetry-East 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 worldwide supplier and integrator of



L-3 Telemetry-West

9020 Balboa Ave | San Diego, CA 92123

Phone: 858-694-7500 | Website: L-3com.com/TW

L-3 Telemetry-West is a premier provider of tailored flight hardware and systems solutions for missile, UAV and spacecraft telemetry, tracking and control (TT&C); software & HPAs for satellite command & control; COTS telemetry ground system solutions; tactical intelligence receivers; and terrestrial HF and microwave radios.

FOCUS - MARCH 2011 Published for customers of L-3 Communications, Telemetry & RF Products Group which consists of Telemetry-West, Telemetry-East, Southern California Microwave and Advanced Technology & Systems.

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COMMENTS, SUGGESTIONS OR REQUESTS ARE WELCOMED AT FOCUS.TW@L-3COM.COM