Lockheed Martin Completes Live Fly Demonstration Of Airborne, Maritime And Fixed Station JTRS Prototype

Operational Demo Showcases Maturity and Advanced Capabilities of AMF JTRS

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Lockheed Martin has successfully completed a live fly demonstration of the Airborne, Maritime and Fixed Station (AMF) component of the military's Joint Tactical Radio Systems (JTRS) program. The demonstration featured airborne, ground-based and simulated maritime units collaborating in real time across an integrated airborne IP network to rapidly find, identify and strike a time- sensitive target.

Lockheed Martin's AMF JTRS team funded and executed the demonstration as a risk reduction effort to evaluate and improve the technical maturity of the team's solution. The demonstration follows a successful Preliminary Design Review, held in August, which showcased numerous components of the team's AMF JTRS solution. The latest demonstration brought those components together in a live fly exercise, proving that the team's solution is capable of creating an airborne IP network that can link aircraft, ships and ground units in real time. The demo also validated the Lockheed Martin team's approach to integrating AMF JTRS radios into current Air Force and Navy platforms. The Lockheed Martin team includes BAE SYSTEMS, General Dynamics, Raytheon and Northrop Grumman.

The AMF JTRS program will deliver a suite of software defined, multi- function radios for use in all three services of the Department of Defense, as well as potential use in the Department of Homeland Security. Because the radio's functions are defined in reusable software rather than hardware, the systems will be capable of meeting the diverse multi-mission roles facing the military and homeland security commanders in the future. A single radio will be capable of operating on highly secure, high performance military tactical networks in future net-centric operations. In addition, AMF JTRS radios will interoperate with legacy data and voice circuits used by the U.S., allied or NATO military forces, as well as communicating with civilian first-responder voice and data systems used in disaster relief and other national emergencies.

The demonstration, held the week of September 19-23, featured two Saberliner jets serving as surrogates for an F-16 fighter and a Predator unmanned aerial vehicle. A third node represented a Combat Direction Center (CDC), a sea-based command center, and a fourth node represented a Tactical Air Control Party utilizing an Enhanced Position Location Reporting System (EPLRS) legacy radio. All four nodes were able to exchange data and imagery using both prototype AMF JTRS and legacy radios over a dynamic ad hoc airborne network, demonstrating the power of net-centric communications enabled by the Lockheed Martin team's AMF JTRS prototype.

"With this demonstration, our team is showing that not only can we make the AMF JTRS system a reality, we can make it an enabler for faster, more collaborative and more effective warfighting operations," said John Mengucci, Lockheed Martin's vice president and general manager for DoD Systems. "Our AMF JTRS technology is mature, integrated and now proven in a live fly exercise. The Lockheed Martin team is ready to deliver an AMF JTRS solution that will revolutionize airborne and maritime communications."

The Lockheed Martin team has leveraged its extensive experience in communications and networking technologies to develop alternative solutions to many of the technical challenges faced by the overall JTRS program. The team has developed, tested and integrated waveforms that provide the capabilities of the JTRS Wideband Networking Waveform (WNW), and continues to research and develop proposed waveform enhancements to meet the needs of fast-moving Navy and Air Force jets. The team has focused its unmatched capabilities in airborne and maritime platforms and communications systems to meet the unique integration challenge of network-enabling the more than 160 varied platforms that will carry AMF JTRS radios. This solution delivers on the promise of the AMF JTRS program, a suite of hardware and software components all built upon a common design to lower over-all cost across the military's platform base.

"In just 12 months, we've gone from an initial architecture and system design to an integrated suite of hardware and software that has proven its ability to enable net-centric communications," said Dom Costa, Lockheed Martin's vice president for AMF JTRS. "The entire team has made outstanding progress throughout this competitive phase of the contract, and we've combined advanced and proven technology from across the industry to create a powerful, highly capable AMF JTRS solution that will deliver on its promises. We're ready to make AMF JTRS a

reality for our nation's warfighters."

Lockheed Martin is one of two teams competing for the AMF JTRS system design and development contract award, which is anticipated in 2006.

Headquartered in Bethesda, MD., Lockheed Martin employs about 135,000 people worldwide and is principally engaged in the research, design, development, manufacture and integration of advanced technology systems, products and services. The corporation reported 2004 sales of $35.5 billion.

Website: http://www.lockheedmartin.com

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