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The Boeing Company [NYSE: BA] successfully completed a series of live tests demonstrating the interoperability of the Transformational Satellite Communications (TSAT) Next-Generation Processor Router (NGPR) with a government reference ground terminal, marking another achievement for the TSAT Space Segment development program.

The tests, conducted at the Massachusetts Institute of Technology's Lincoln Laboratory (MIT/LL) through the government's TSAT Radio Frequency Universal System Test Terminal, verified Boeing's initial compliance and compatibility with the XDR+ anti-jamming waveform, developed for TSAT ground-to-satellite connections. The tests also demonstrated a first step toward ensuring the delivery of "communications on the move" for TSAT military users.

"The flawless execution of the tests at MIT validates the technology readiness of key elements in the team's processor-router design," said Michael Gianelli, Boeing vice president of Navigation and Communications Systems. "Since the team finished the planned testing three days early, we completed additional functionality and performance demonstrations, such as the communications waveform and resource control protocols in key risk reduction areas. Harris Corporation and the rest of the NGPR team played a key role in the tests' success."

The NGPR is designed to provide high-speed Internet protocol-based capabilities to meet the communication requirements of today's agile warfighter. Prior to the tests at MIT/LL, the team demonstrated functional performance of the NGPR at Harris Corporation on a high-fidelity test bed.

Sheldon J. Fox, Harris vice president and general manager of U.S. Department of Defense Programs, said, "It's no surprise the demonstration went so well. We utilized our high-fidelity computer simulations and hardware test bed to simulate every test, so we knew the system would work as required. The success of the planned tests at MIT reflects the team's hard work and engineering rigor."

The NGPR demonstration follows other recent program accomplishments, including an on-orbit test of similar digital processing technology on a commercial satellite and a laser communications laboratory test.

"Our continued success in these extensive demonstrations confirms the technologies are mature and ready for operational use," said Gianelli. "These tests provide a solid foundation for more comprehensive tests planned later this year."

The Boeing team is working under a \$514 million U.S. Air Force contract for the risk reduction and system definition phase of the TSAT Space Segment program. The Air Force plans to select a primary TSAT Space Segment contractor in fiscal year 2008.

The NGPR team includes Boeing; Harris Corporation, Melbourne, Fla.; and Innovative Communications Engineering, Inc. (ICE), North Chelmsford, Mass. Harris' Government Communications Systems Division conducts advanced research studies, develops prototypes, and produces and supports state-of-the-art, assured communications™ solutions and information systems that solve the mission-critical challenges of its military and government customers. ICE, winner of the 2005 Boeing Air Force Space Systems Small Business Supplier of the Year Award, offers its government, military and commercial customers terrestrial and space-based Internet protocol and optical networking solutions. ICE delivers superior system engineering services as well as innovative hardware and software product realizations across a wide range of advanced communications technologies.

The Boeing TSAT team includes Raytheon, Ball Aerospace, General Dynamics, IBM, L-3 Communications, Cisco Systems, BBN Technologies, Hughes Network Systems, Lucent Technologies, Harris, EMS Technologies, ICE and Alpha Informatics.

The results contained in this submission were generated in whole, or in part through work supporting the Military Satellite Communications Joint Program Office.

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