

## **Boeing-Built, On-Orbit Commercial Satellite Proves Technology Proposed for Future Military Satellite System**

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Boeing [NYSE: BA], in conjunction with Hughes Network Systems, LLC [HUGHES], has successfully demonstrated the space-based delivery of MP-3 files, a streaming video multi-cast and voice over Internet protocol services to a government audience, validating key elements of the Boeing communications approach for the Transformational Satellite Communications Space Segment (TSAT SS) program.

Boeing and Hughes demonstrated to the TSAT customer the system's functionality using the digital processor on the Hughes SPACEWAY™ satellite during a series of live, over-the-air tests at Hughes headquarters in Germantown, Md.

"SPACEWAY is the pathfinder for TSAT," said John Peterson, Boeing TSAT SS program director. "The demonstrated functionality shows the network services TSAT will build upon, proves the maturity of several technologies and provides an operational model of the TSAT user experience. Our TSAT technology test proves it can be done in the real world, not just on a test bench."

Boeing currently leads a team that is pursuing the space segment of the TSAT program. TSAT is a major element of a secure, high-capacity global communications network that will serve the U.S. Department of Defense (DOD). Hughes provides the Boeing TSAT team with demonstrated network expertise based on years of satellite system development on the VSAT, Thuraya Mobile Sat and SPACEWAY systems.

"Our military customers are requesting the ability to 'fight jointly,' which means that information is accessible to the warfighter, regardless of worldwide location, branch of military, platform or network being used," Peterson said. "A system's ability to recognize relevant data and route it automatically, while remaining compliant with information security, is the most important aspect of network-centric operations."

Boeing's fourth generation digital processor has the processing power of 10,000 Pentium III chips and is already in use on SPACEWAY, a high-power Boeing 702 spacecraft. The processor is designed to field and manage large amounts of data as a part of a broader network. It also has the inherent capability to efficiently multicast data to other terminals that have joined a multicast group.

Supported by a constellation of satellites in geosynchronous orbit, TSAT SS will provide the backbone for the Defense Department's high-bandwidth networked communications system. Boeing received the Risk Reduction and System Definition contract in January 2004, and the DOD is expected to select the ultimate system provider in 2008.

Hughes Network Systems, LLC [HUGHES] is the global leader in providing broadband satellite networks and services for enterprises, governments, small businesses and consumers. HughesNet™ encompasses all broadband solutions and managed services from Hughes, bridging the best of satellite and terrestrial technologies. To date, Hughes has shipped more than one million systems to customers in over 100 countries. Its broadband satellite products are based on the IPoS (IP over Satellite) and RSM-A global standards, approved by the TIA, ETSI and ITU standards organizations. Headquartered outside Washington, D.C., in Germantown, Md., USA, Hughes maintains sales and support offices worldwide. Hughes is a wholly owned subsidiary of Hughes Communications, Inc. [OTCBB: HGCM]. For additional information, visit [www.hughes.com](http://www.hughes.com).

A unit of The Boeing Company, Boeing Integrated Defense Systems is one of the world's largest space and defense businesses. Headquartered in St. Louis, Boeing Integrated Defense Systems is a \$30.8 billion business. It provides network-centric system solutions to its global military, government and commercial customers. It is a leading provider of intelligence, surveillance and reconnaissance systems; the world's largest military aircraft manufacturer; the world's largest satellite manufacturer; a foremost developer of advanced concepts and technologies; a leading provider of space-based communications; the primary systems integrator for U.S. missile defense; NASA's largest contractor; and a global leader in sustainment solutions and launch services.

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