

Tests Demonstrate Key Capabilities of Boeing's Cluster 1 Joint Tactical Radio System and Wideband Networking Waveform

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A series of successful tests this summer demonstrated the advanced capabilities of the Boeing [NYSE: BA] Wideband Networking Waveform (WNW) and Joint Tactical Radio System Cluster 1 (JTRS C1) radios.

"Key elements of the WNW, running on a Cluster 1 radio, are being demonstrated and show the capabilities this technology can bring to the warfighter," said Ralph Moslener, the JTRS C1 program manager. "The WNW has been interoperating with multiple waveforms on JTRS Cluster 1 radios in a field test environment."

The JTRS are radios designed to provide warfighters with network-centric communications capabilities. Pre-engineering and development model radios have existed for more than a year. Forty units are operating in labs and facilities across the country.

The WNW uses common Internet Protocol-based networking concepts, as well as new mobile ad-hoc networking technology to integrate voice, video and data communications. The WNW enables JTRS radios to provide secure, self-forming and self-healing connections to other "nodes" on the network. It will ultimately enable connectivity with the Global Information Grid, or "Internet in the Sky," thereby extending advanced network services and information access to warfighters anywhere in the world.

WNW and JTRS tests were conducted by government personnel and Boeing engineers at Fort Huachuca, Ariz., and in company labs at Anaheim, Calif. The test set-up included mobile and fixed sites with JTRS radios operating with WNW and other waveforms.

Some key JTRS Cluster 1 program achievements include:

- The Wideband Networking Waveform (WNW), increment 1, operating on JTRS radios and interoperating with other waveforms. Initial contractor testing, observed by the government, demonstrated substantial progress in the development of this capability.
- WNW's ability to adapt to ever changing connectivity scenarios as demonstrated in network merging tests.
- The WNW and JTRS functioning at a distance of more than 14 miles during range tests, limited only by test range facilities.
- Relay tests that demonstrated the capability to transmit data between several nodes spread over a large distance.
- Stability tests in which the JTRS and WNW operated in excess of six hours in temperatures exceeding 100-degrees Fahrenheit.

Recent tests also demonstrated simultaneous communications between a JTRS Cluster 1 radio, legacy radios and a prototype of an Airborne and Maritime/Fixed Station (AMF) radio, also developed by Boeing, using the WNW Waveform. JTRS Cluster 1 and AMF JTRS radios will be used by the U.S. Army, Air Force Navy, Marines and Coast Guard.

As it moves forward, the JTRS Cluster 1 program will provide early networking capabilities followed by incremental updates until the government's final requirements are met. Boeing and its teammates BAE Systems, Rockwell Collins, and Northrop Grumman have been working closely with the Joint Program Executive Office to ensure the future success of the program.

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Note: A fact sheet containing technical information about the recent demonstrations of the WNW and JTRS C1 radios is available upon request.

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