Boeing FAB-T Demonstrates Communications with On-orbit AEHF Satellite

Satellite communications test proves Internet-like functionality and improved speed

Success allows program to progress toward system functional qualification testing

HUNTINGTON BEACH, Calif., June 19, 2012 -- Boeing [NYSE: BA] has successfully demonstrated end-to-end communication using a terminal from the Family of Advanced Beyond Line-of-Sight Terminals (FAB-T) system and the Advanced Extremely High Frequency (AEHF) satellite. This first on-orbit test with the AEHF SV-1 satellite accomplished both extended-data-rate (XDR) and low-data-rate (LDR) communications using the FAB-T system.

"This critical test used an on-orbit satellite, proving the integrity of our FAB-T system and moving us closer to delivering this extremely important capability to our U.S. Air Force customer," said Paul Geery, Boeing vice president and FAB-T program manager. "We have conducted additional successful high-speed data tests as we work to complete the remaining software integration and prepare for functional qualification tests."

When operational, FAB-T will provide the Air Force with protected and secure wideband satellite communications to support command and control of U.S. nuclear forces. The system's advanced XDR capability offers Internet-like functionality and improved speed compared with earlier systems and software.

The on-orbit testing, conducted late last year through February at Boeing's Systems Integration Lab in Huntington Beach, involved a Block 8 FAB-T and the on-orbit AEHF SV-1 satellite. As part of the testing, FAB-T acquired backward compatible LDR and XDR uplinks and downlinks. The terminal then logged onto the AEHF satellite and exchanged backward compatible LDR and XDR data with the Single Channel Anti-jam Man Portable and Secure Mobile Anti-jam Reliable Tactical Terminal used by the U.S. Army, the U.S. Navy Multiband Terminal and Follow On Terminal, and the Air Force Minuteman Minimum Essential Emergency Communications Network Program Upgrade terminal.

The demonstration also included AEHF Calibration Facility-Interim Command and Control terminal testing, during which FAB-T successfully transmitted and received data at 8 Mbps. The FAB-T system also demonstrated terminal rekey and rekey requests via crosslink, as well as Air Force report-back capability.

Since the initial test with the on-orbit AEHF satellite, the FAB-T program has demonstrated, via a satellite simulator, 24 Mbps receive capability, Navy report-back functionality, and XDR Air Force report-back functionality.

The series of tests has thoroughly demonstrated the key interfaces and functionalities used in FAB-T operations. FAB-T's success demonstrates progress toward functional qualification testing.

"Boeing is working to provide the Air Force with a fully capable, affordable system that supports the existing Milstar satellite constellation, its ground and airborne command-and-control terminals, and the new AEHF satellite constellation," said Geery. "The program continues to make measurable progress against its planned baseline."

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