# Boeing Successfully Demonstrates Anti-Jam Capability for U.S. Department of Defense Satellites

### - The Protected Tactical Enterprise Service (PTES) operational demonstration integrates all major capabilities across the program for the first time.

### - Milestone marks successful end-to-end test of all components, proving operational capabilities for the U.S. Space Force's pathfinder program.

**ABERDEEN PROVING GROUND, Md., March 7, 2023** –Boeing [NYSE:BA] engineers successfully demonstrated the company's Protected Tactical Enterprise Service (PTES) over an on-orbit operational satellite, validating the design for the U.S. Space Force's ground-based anti-jamming satellite communications (SATCOM) capability. The demonstration was the first time the PTES program integrated all of the end-to-end capabilities and tested them over the air using a commercial satellite.

The event, which took place at the Joint Satellite Engineering Center, closely represented scenarios of users accessing field-deployed equipment via a Protected Tactical Waveform (PTW) user terminal interface. The demonstration validated integration of software and hardware with the current U.S. Department of Defense (DoD) SATCOM architecture and exercised PTW anti-jam capability. Actual initial deployment of this capability for operational use will be over the government's Wideband Global SATCOM (WGS) fleet, taking advantage of its military features for high levels of jamming resistance and connectivity assurance.

"This is a significant step forward in demonstrating the initial capabilities and nearing delivery of these critical communication tools to our servicemembers," said Charlotte Gerhart, Space Systems Command's Tactical SATCOM Acquisition Delta Chief. "The ability to augment the current wideband constellation combined with the potential to introduce resilience, will greatly enhance our ability to stay connected in contested environments."

During the demonstration, the Boeing-developed Key Management System validated its ability to interface with both the PTW ground user terminal and PTES's end cryptographic unit and network management software within the Joint Hub. This provided the mechanism for enhanced protection of end-to-end communication over a satellite.

"We're moving fast, iterating, demonstrating and continually improving our solution at every junction. We're rapidly delivering new technology to provide protected tactical communication to U.S. and allied servicemembers around the world," said Troy Dawson, Boeing's vice president of Government Satellite Systems. "By augmenting current systems with PTES, which is designed to be forward and backward compatible with government and commercial systems, the U.S. DoD and its allies are able to meet the challenges of an evolving battlefield."

PTES ground systems will provide PTW processing over Boeing-built WGS satellites, as well as other transponder commercial satellites, without spacecraft modification. Initial operational capability is expected to be fielded in 2024. In addition to PTES, Boeing is the prime contractor for the WGS system, as well as the Mitigation and Anti-Jam Enhancement (MAJE) geolocation and adaptive nulling upgrade to the WGS fleet. Boeing is also developing a space-based PTW hub, the Protected Tactical SATCOM Prototype.

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