

Teleport

Executive Summary

- The DoD Teleport Generation One, Initial Operational Capability 3 (IOC3) system is operationally effective and suitable. Testing revealed critical maintenance failures that exceeded the 2-hour mean time to repair. The program took action to correct these and other issues.
- In order to maximize the full potential of IOC3 capability, the Teleport program should exercise additional efforts to improve maintainability, training, documentation, Defense Information Systems Network (DISN) circuit activation, and assist U.S. Strategic Command in publishing approved operational procedures.

System

- DoD Teleport sites are globally distributed satellite communications (SATCOM) facilities. Teleport sites consist of four segments:
 - Teleport SATCOM earth terminals operate in X, C, Ku, Ultra High Frequency (UHF), and Extremely High Frequency (EHF) frequency bands. The terminals provide the radio frequency links between the Teleport site and the deployed warfighter SATCOM terminal via commercial or military satellites.
 - The base-band segment includes encryption, switching, multiplexing, and routing functions for connecting data streams or packeted data to the DISN.
 - Network services provide connectivity to the DISN long-haul networks and other interworking functions necessary to meet the warfighter's requirements.
 - Management control provides integrated and automated control and monitoring of Teleport base-band hardware, earth terminal hardware, electronic matrix switch, transmission security, and test equipment.
- The system is globally distributed across six Teleport facilities located at:
 - Chesapeake, Virginia
 - Ramstein/Landstuhl, Germany
 - Lago Patria, Italy
 - Fort Buckner, Japan
 - Wahiawa, Hawaii
 - Camp Roberts, California



- Teleport IOC3 implementation added EHF capabilities at the above-listed Teleport facilities and Bahrain.

Mission

- Combatant Commands, Services, and deployed operational forces use the Teleport system in all phases of military operations to gain worldwide access to voice, video, and data services via military and commercial SATCOM.
- Commanders use Teleport to provide deployed forces with access to standardized fixed gateways from anywhere in the world for use of the six DISN services:
 - Secret Internet Protocol Router Network
 - Unclassified-but-Sensitive Internet Protocol Router Network
 - Defense Red Switch Network
 - Defense Switched Network
 - Video Teleconferences
 - Joint Worldwide Intelligence Communications System
- Units use Teleport to provide worldwide, interoperable communications between users by enabling multiple relays within a SATCOM band and cross-banding between different SATCOM bands.

Activity

- In FY07, Joint Interoperability Test Command (JITC), Air Force Operational Test and Evaluation Center, and Commander Operational Test and Evaluation Force conducted two-week, concurrent operational tests at the Wahiawa, Hawaii, and Fort Buckner, Japan, Teleport sites. This completed operational testing started during OT&E at the Northwest Virginia Teleport site in July 2006.
- The test effort achieved broad Service participation, including nine Air Force units, two Navy ships, one Marine Corps unit, and three joint units.

- In August 2007, JITC conducted an Operational Assessment of commercial open standard Internet Protocol (IP) modem capabilities planned for Teleport fielding.

Assessment

- JITC conducted testing in accordance with the DOT&E-approved Test and Evaluation Master Plan.
- Operational testing was adequate to demonstrate that the DoD Teleport IOC 3 system is operationally effective.
- Testing was adequate to demonstrate that the IOC3 system is operationally suitable, but revealed some maintenance issues. The Wahiawa and Fort Buckner Teleport sites experienced three critical failures that exceeded the 2-hour Mean Time to Repair standard. The Teleport program addressed identified maintenance issues (associated with the critical failures) with an EHF system software upgrade.
- The IOC3 system provides enhanced capability to the warfighter and is ready to support operations.
- The Operational Assessment of commercial open standard IP modems concluded that procurement of subject modems

is a low risk endeavor due to their widespread successful use within the commercial sector.

Recommendations

- Status of Previous Recommendations. The Teleport program continues to mature the Teleport Concepts of Operation for each new capability and is creating a library of operational procedure documents (FY06).
- FY07 Recommendation.
 1. In order to maximize the full potential of the IOC3 capability, the Defense Information Systems Agency and the Teleport program should continue efforts to improve maintainability, establish baseline standards for training across the Teleport system, correct documentation deficiencies, ensure all DISN circuits are activated, and assist U.S. Strategic Command in publishing approved operational procedures.