Teleport

Executive Summary
- Follow-on testing is required to evaluate the operational effectiveness and suitability of the full Initial Operations Capability (IOC) 2 functionality. Defense Information System Network (DISN) services for IOC 2 were deferred until 2007 by the Joint Requirements Oversight Council.
- A detailed concept of operations guide for Teleport is required in order to establish a common baseline for the operation of tactical terminals connected to Teleport facilities.
- Additional encryption, switching, multiplexing, and routing functions for connecting data streams to the DISN services must be resolved prior to follow-on testing of IOC 3 capability.

System
- The DoD Teleport sites are globally distributed satellite communications (SATCOM) facilities. The Teleport sites consist of four segments:
  - Teleport earth terminals are SATCOM terminals that operate in X, C, Ku, Ultra High Frequency (UHF), Extremely High Frequency, and Ka frequency bands. The terminals provide the radio frequency links between the Teleport site, the satellite, and the deployed warfighter SATCOM terminal via commercial or military satellites.
  - The base-band segment includes all 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 and mission 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 from six core teleport facilities. The facilities are located at:
  - Chesapeake, Virginia
  - Ramstein and Landstuhl, Germany
  - Lago Patria, Italy
  - Fort Buckner, Japan
  - Wahiawa, Hawaii
  - Camp Roberts, California

Mission
- Combatant Commanders, Services, and deployed operational forces will use the Teleport systems in all phases of conflict to gain worldwide military and commercial SATCOM services.
- Teleport provides deployed forces with standard fixed gateways from anywhere in the world for all six DISN services:
  - Secret Internet Protocol Router Network (SIPRNET)
  - Unclassified-but-Sensitive Internet Protocol Router Network (NIPRNET)
  - Defense Red Switch Network (DRSN)
  - Defense Switched Network (DSN)
  - Video Teleconferences (VTC)
  - Joint Worldwide Intelligence Communications System (JWICS)
- Teleport will expand the Standard Tactical Entry Point (tactical systems) concept to supply warfighters with standard fixed gateways into DISN services.

Activity
- In April 2006, the Joint Interoperability Test Command conducted a Generation One, IOC 2 operational test for the UHF Satellite Communication System at the Teleport site in Wahiawa, Hawaii. Tactical Commands included the 293rd Combat Communication Squadron and the 56th Air Communication at Hickam AFB, Hawaii; the 729th Air Control Squadron at Hill AFB, Utah; the 354th Communication Squadron at Eielson AFB, Alaska; the 305th Communications Squadron at McGuire AFB, New Jersey; Pacific Command Headquarters at Camp Smith, Hawaii; the USS *Comstock* (LSD 45); and the USS *McClusky* (FFG 41).

- Deployed users performed multiple-hops, which are multiple connections over UHF satellite communication terminals, at Wahiawa Teleport facility.
- The test network used three satellite communication circuits (C, X, and Ku bands) to assess the UHF capability to communicate over different frequency bands.
- In July 2006, the Joint Interoperability Test Command conducted a Generation One, IOC 3 operational test for the Extremely High Frequency Satellite Communication System at the Northwest Teleport site, Chesapeake, Virginia. Tactical users included the 612th Air Communications Squadron at Davis-Monthan AFB, Arizona; the 609th Air Mobility Operations Squadron at Shaw AFB, South Carolina; the 83rd Communications Squadron at Langley AFB, Virginia; Central Command J6 at MacDill AFB, Florida; the Joint Communications Support Element at MacDill AFB, Florida; the 60th Communications Squadron at Travis AFB, California; the 21st Air Mobility Operations Squadron at McGuire AFB, New Jersey; the 305th Communications Squadron at McGuire AFB, New Jersey; and the 53rd Communications Squadron at Robins AFB, Georgia.

Assessment
- The operational tests were conducted in accordance with a DOT&E-approved Test and Evaluation Master Plan and test plans.

- The IOC 2 UHF equipment functions as intended and provides a useful multiple-hop capability. The full IOC 2 functionality will not be realized until UHF users can access DISN services, a capability deferred until 2007 by the Joint Requirements Oversight Council.
- A detailed concept of operations guide for Teleport is required in order to establish a common baseline for the operation of tactical terminals connected to Teleport facilities.
- Reporting on IOC 3 testing is being deferred until additional testing is completed at Wahiawa, Hawaii, and Fort Buckner, Okinawa, Japan.
- Tactical users successfully accessed DISN services and demonstrated multiple-hop and cross-banded voice and data exchanges during the IOC 3 test event.

Recommendations
- Status of Previous Recommendations. The Teleport Program Office effectively resolved DOT&E's FY05 recommendation.
- FY06 Recommendation.
  1. The Defense Information System Agency and Teleport Program Office should place a high priority on user development and implementation of a detailed concept of operations guide for Teleport.