

DOD PROGRAMS

Teleport

The Department of Defense (DoD) Teleport System will provide deployed Satellite Communications (SATCOM) users access to Defense Information System Network (DISN) services and will provide cross banding between different SATCOM systems. The Teleport program was established to satisfy the communications requirements and objectives specified in the DISN Capstone Requirements Document (CRD). The DoD Teleport directly supports the DISN CRD requirements of worldwide coverage and connectivity, interoperability, responsiveness, and technology insertion. The Teleport system will perform its mission from six teleport core facilities, (Northwest, Virginia; Ramstein/Landstuhl, Germany; Lago Patria, Italy; Fort Buckner, Japan; Wahiawa, Hawaii; and Camp Roberts, California), and will be operated by the local operations and maintenance command at each installation or facility.

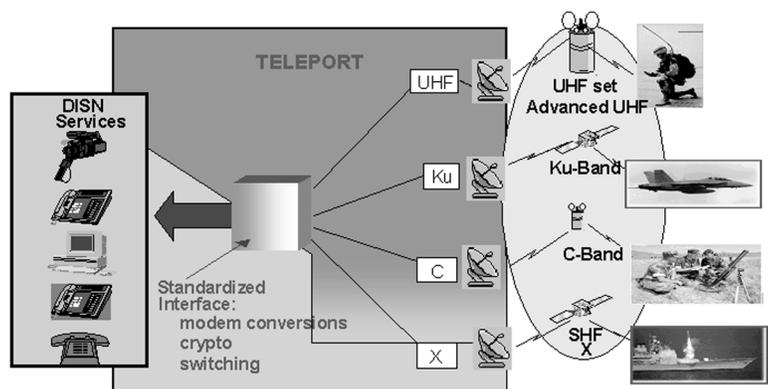
The Teleport fielding plan uses a spiral acquisition process for three Generations of the Teleport System. Generation One IOC1, scheduled for 1QFY04, provides upgraded X-, C-, and Ku-band capabilities and capacities at existing Standardized Tactical Entry Point (STEP) sites. Generation One IOC2, scheduled for 3QFY04, provides Ultra High Frequency (UHF) capabilities. Generation Two, scheduled for completion during 4QFY05, incorporates Extremely High Frequency (EHF), L-, and commercial/military Ka-band SATCOM capabilities, as well as High Frequency (HF) radio capability. Generation Three, Full Operational Capability, scheduled for 4QFY10, incorporates advanced Military SATCOM systems, including Advanced EHF and the Advanced Wideband System, into the Teleport design. The Defense Information Systems Agency (DISA) is the lead agency for system development. The Joint Interoperability Test Command (JITC) is the Operational Test Agency for this program.

TEST & EVALUATION ACTIVITY

The TEMP was initially written to support the Generation One program initiation at Milestone C. The primary focus of this version of the TEMP was the Operational Assessment (OA) supporting Milestone C and the Initial Operational Test & Evaluation (IOT&E) supporting the IOC1 declaration. A TEMP update is in coordination, which will support Generation Two program initiation.

In support of Generation One program initiation, JITC performed an OA at the Northwest Interim Teleport during 2QFY02. The Northwest facility is one of the STEP sites and as such was considered an Engineering Development Model (EDM) for the Teleport. An OA for EHF was conducted in 1QFY03 to support a Generation Two Milestone C Decision for EHF long-lead items and a Milestone B for the remainder of the Generation Two program. The OA consisted of two major parts, a field demonstration using Marine EHF terminals at Camp Le Jeune and Fort Bragg to access DISN services, and observation of operational Navy EHF communications at the Naval Computer and Telecommunications Area Master Station (NCTAMS) Atlantic Area (LANT). Because the Navy was in the process of correcting several problems with the shipboard EHF terminal, the data collection for the OA will continue into the winter of 2003 to verify that these problems have been corrected.

IOT&E will be conducted in 4QFY03 on the first complete site to support the Generation One IOC 1 decision, and Follow-on Test and Evaluation (FOT&E) will be carried out in 3QFY04 to support the Generation One IOC 2 decision. There will then be a subsequent FOT&E to support Generation Two IOC in 4QFY05 and a FOT&E to support Generation Three in FY10.



DoD Teleport System is a telecommunications collection and distribution point providing deployed forces with multiband, multimedia communications system and worldwide reach-back capabilities to the Defense Information System Network.

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TEST & EVALUATION ASSESSMENT

During the OA at Northwest during 2QFY02, JITC determined that the Northwest STEP site represented approximately 83 percent of the full functionality of the target Teleport sites and thus was sufficiently representative for the test. The Northwest Interim Teleport successfully met current user requirements according to the capabilities assessed. The site had adequate satellite coverage, demonstrated DISN services and interoperability over multiple satellite bands, provided bulk encryption for SATCOM links and limited automated technical control, and maintained greater than 95 percent operational availability for circuits, trunks, and links. The level of functionality and the system performance demonstrated during the OA was sufficient for DOT&E to support the Milestone C decision and initiation of contracts for the Generation One Teleport sites.

The JITC conducted an OA of the proposed DoD Teleport's Generation Two capabilities in October 2002. The OA focused on providing DISN service access to deployed users over a MILSTAR EHF connection. During the field demonstration, deployed Marines at Camp Le Jeune used a SMART-T EHF satellite link with a SMART-T at Fort Bragg to place Defense Switched Network (DSN) phone calls and send Unclassified-but-Sensitive Internet Protocol Router Network (NIPRNET) and Secret Internet Protocol Router Network (SIPRNET) messages. The exchanges successfully provided proof of concept for accessing DISN services via EHF using the general architecture proposed for DoD Teleport. A similar exchange of DSN phone calls and electronic mail messages demonstrated the feasibility of cross-banding from Super High Frequency to EHF. To complement the field demonstration, JITC also observed operational NIPRNET and SIPRNET traffic at NCTAMS LANT. This confirmed that deployed users are already using EHF satellite links to access DISN services and provided an assessment of the Navy Medium Data Rate (MDR) appliqué terminal.

The Teleport program is actually purchasing the MDR Follow-On Terminal (FOT), which was not accessible during the OA at any shore locations. Therefore, to supplement the data collected at NCTAMS LANT, during 2QFY03 JITC will collect FOT data from a deployed battle group. This will also verify if all major problems have been corrected before purchasing the majority of the EHF terminals for the Teleport program.