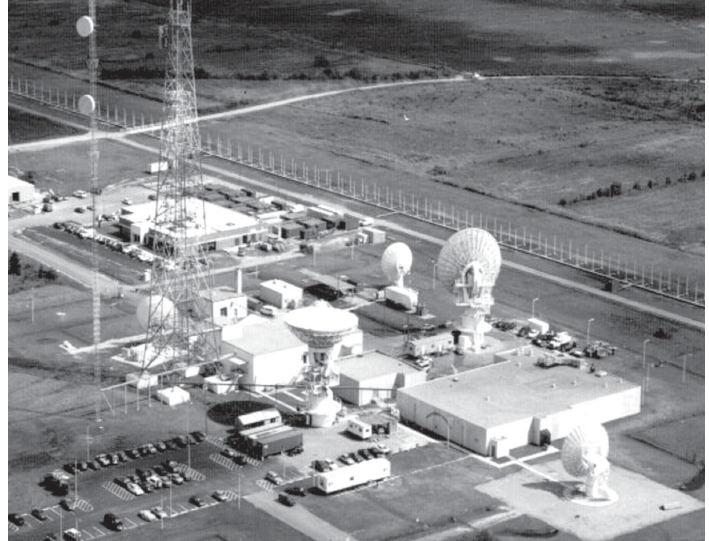


DOD PROGRAMS

Teleport

SUMMARY

- Initial Operations Capabilities (IOC) 1 demonstrated X-band, Ku-band, and C-band connectivity at the Northwest Teleport site.
- Operational demonstrations provided data to evaluate IOC 1 at remaining Teleport sites.
- Limitations of legacy ultra high frequency radios for voice services and security issues accessing data services delayed IOC 2 testing.
- DOT&E approved the Test and Evaluation Master Plan for IOC 1 and Initial IOC 2 in July 2003. The Test and Evaluation Master Plan will be updated to address Generation 1-IOCs 3 and 4.



DoD Teleport system provides deployed satellite communications users access to defense information system network services and provides cross banding between different satellite communication systems.

SYSTEM DESCRIPTION AND MISSION

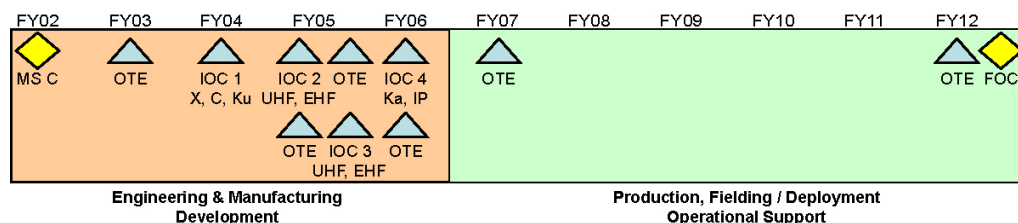
The DoD Teleport system provides deployed satellite communications users access to defense information system network services and provides cross banding between different satellite communication systems.

DoD established the Teleport program to satisfy the communications requirements and objectives specified in the Defense Information Service Network (DISN) Capstone Requirements Document. The Teleport directly supports the user requirements of worldwide coverage and connectivity, interoperability, responsiveness, and technology insertion. The Teleport system performs its mission from six core Teleport sites (Northwest, Virginia; Ramstein/Landstuhl, Germany; Lago Patria, Italy; Fort Buckner, Japan; Wahiawa, Hawaii; and Camp Roberts, California). The major command at each location operates and maintains the Teleport facilities.

The Teleport fielding plan uses a spiral acquisition process for three generations of the Teleport system.

- Generation One - IOC 1 provides upgraded X-band, C-band, and Ku-band capabilities and access to existing Standardized Tactical Entry Point sites in support of Army, Air Force, Marine, and Navy tactical and theatre level users. Generation One - IOC 2 provides ultra high frequency capabilities. Generation One - IOC 3 incorporates extremely high frequency. Generation One-IOC 4 provides limited military Ka-band satellite communications and internet protocol capabilities.
- The Generation Two Operational Requirements Document, approved July 2004, significantly redefined the fielding schedule. Generation Two expands military Ka-band and converged internet protocol capabilities.
- Generation Three provides full operational capability and incorporates future advanced military satellite communications.

TEST AND EVALUATION ACTIVITY



DOD PROGRAMS

The Defense Information Systems Agency is the lead agency for system development and Joint Interoperability Test Command (JITC) is the operational test agency for the Teleport program. During 4QFY03, JITC and the operational test agencies conducted the Initial Operation Test and Evaluation (IOT&E) at the Northwest Teleport site in Virginia. The deployed users that participated in the IOT&E at the Northwest Teleport site included one ship, five Air Force terminals, one Marine Corps terminal, and two terminals at JITC. During the three-week event, the deployed users exchanged five of the six DISN services over X-band, C-band, and Ku-band and demonstrated operational utility over multiple hop, cross-banding, and hub-spoke configurations.

There is a standardized design for Teleport global network, but due to geographical location, relationship to combat commands, and personnel staffing, JITC will conduct an operational demonstration at each of the remaining five Teleport locations. The purpose of the operational demonstration is to test the site's ability to perform its mission once the new component is installed and to identify site-specific issues. During each of these limited tests, deployed users are required to access the various DISN services over various satellite configurations. The table below shows dates and locations deployed users accessed the Teleport network. During the tests, the message and call completion rates over the various configuration met user requirements.

Dates	Teleport Location	Deployed Users
27 Sept – 10 Oct 2003	Fort Buckner, Okinawa, Japan	Third Marine Expeditionary Force
13-22 Oct 2003	Wahiawa, Hawaii	U.S. Army Pacific Command
20-31 Oct 2003	Camp Roberts, California	McConnell Air Force Base, Kansas U.S. Army Pacific Command
13-24 Nov 2003	Ramstein Air Force Base, Germany	Sullivan Barracks, Germany
15-23 Mar 2004	Lago Patria, Italy	Ramstein Air Force Base, Germany Aviano Air Force Base, Italy

Developmental testing in support of the Generation One - IOC 2 identified problems that limit the degree to which deployed users can use Teleport ultra high frequency capabilities. Currently, when deploying ultra high frequencies, the multiple hop capability is the only Teleport configuration that users can access. The Teleport office is modifying the operational test schedule to address interim solutions for accessing data services through the Teleport ultra high frequency link.

TEST AND EVALUATION ASSESSMENT

Generation One - IOC 1 capabilities are operationally effective and suitable, but fall short of the user's requirements. Future system testing will follow an evolutionary strategy for acquisition and fielding. The Teleport configurations demonstrated effectiveness in coverage, quality of service, and the ability to connect to five of the six DISN services. There were no operational suites available to test the connectivity into the Joint Worldwide Intelligence Communications System, which would account for the sixth service. The Joint Worldwide Intelligence Communications System has not been tested and will be demonstrated during future operational tests.

Testers were unable to observe all of the required management and control functions. Management and control functions will test in a follow-on test scheduled for 2QFY05. The National Security Agency's Red Team performed an information assurance assessment and concluded that the Defense Information Systems Agency Teleport system security posture is satisfactory. With the exception of interoperability using the Joint Worldwide Intelligence Communications System, there were several safety issues. The Generation One - IOC 1 system met all other suitability requirements.

The operational demonstrations conducted in FY04 at the five remaining Teleport sites confirmed the results observed during IOT&E at the Northwest Teleport site. Similar safety issues found at Northwest were observed at Fort Buckner and Wahiawa. Wahiawa and Fort Buckner personnel are correcting the safety shortfalls.