Marine Corps Tactical Systems Support Activity
Camp Pendleton, CA

CHARTER

Prepared by:

Captain D. L. Jones
MC Network Design Facility OIC
31 July 2001

Table of Contents

♦ INTRODUCTION

Link-16 is the NATO designation of Tactical Digital Information Link – J (TADIL-J) which was introduced into operations of the United States Navy, the Joint Services, and forces of the North Atlantic Treaty organization (NATO) in 1994. Link-16 provides certain technical and operational improvements to existing tactical data link capabilities. The general purpose of Link-16 is the same as that of Link-11 (TADIL-A) and Link-4A (TADIL-C): the exchange of real-time tactical data among units of force. While Link-16 is identical in purpose to these links, it also provides some data exchange elements which they lack, and it provides significant improvements as well, such as nodelessness, jam resistance, flexibility of communication operations, separate transmission and data security, increased numbers of participants, increased data capacity, network navigation features, and secure voice.

Link-16 uses the Joint Tactical Information Distribution System (JTIDS). The acronym JTIDS refers to the communications component of Link-16. It encompasses the Class 2 terminal software, hardware, RF equipments, and the high-capacity, secure, antijam waveform that they generate.

Link-16, using the JTIDS data terminal, represents major improvements in data link communications over the current Link-11 and current Link-4A. Link-16 will not replace these links entirely, but it will become the preferable alternative when feasible. Because JTIDS uses only the Ultra-High Frequency (UHF) spectrum, Link-16 communications are limited to line of sight unless suitable relay platforms are available. Furthermore, many current Link-11 platforms will not be equipped with JTIDS. It is therefore anticipated that services or data link platforms will employ both Link-11 and Link-16 simultaneously for at least 20 years after Link-16 has been introduced.

Recognizing the need to participate in the joint community for air/ground control and Theater Missile Defense (TMD), as well as being interoperable with other services and NATO nations, Marine Corps Systems Command released message 031204Z November 1998 directing the establishment of the Marine Corps TADIL-J Network Design Facility. In relation to this, all the service NDFs and the Joint Network Design Library (FORSCOM) signed a Memorandum of Understanding (MOU) to cooperate, as partners, in establishing procedures and standards that enhance the operational effectiveness of TADIL-J networks for all services.

Since it's establishment, the Marine Corps Network Design Facility (NDF) has participated in numerous exercises providing TADIL-J network design assistance and delivery of Network Design Loads (NDL) to meet current requirements for the operating forces. Working hand-in-hand with the operating forces and other service NDFs, the Marine Corps NDF provides the voice and direction in addressing Marine Corps specific TADIL-J needs in the joint and multinational community.

♦ MISSION

Marine Corps Tactical Systems Support Activity (MCTSSA) is the designated Tactical Digital Information Link – J (TADIL-J) Network Design Facility for all Marine Corps TADIL-J platforms (reference COMMARCORSYSCOM message 031204Z November 1998). Accordingly, MCTSSA is solely responsible for the development, maintenance, configuration management, distribution, and user support for these TADIL-J networks.

♦ PURPOSE

To ensure Marine Corps JTIDS networks and platform initialization files are designed, validated, published, and maintained for Marine Corps-unique and Joint, Combined, or Coalition operations which include Marine Corps JTIDS/MIDS equipped platforms.

♦ ORGANIZATION

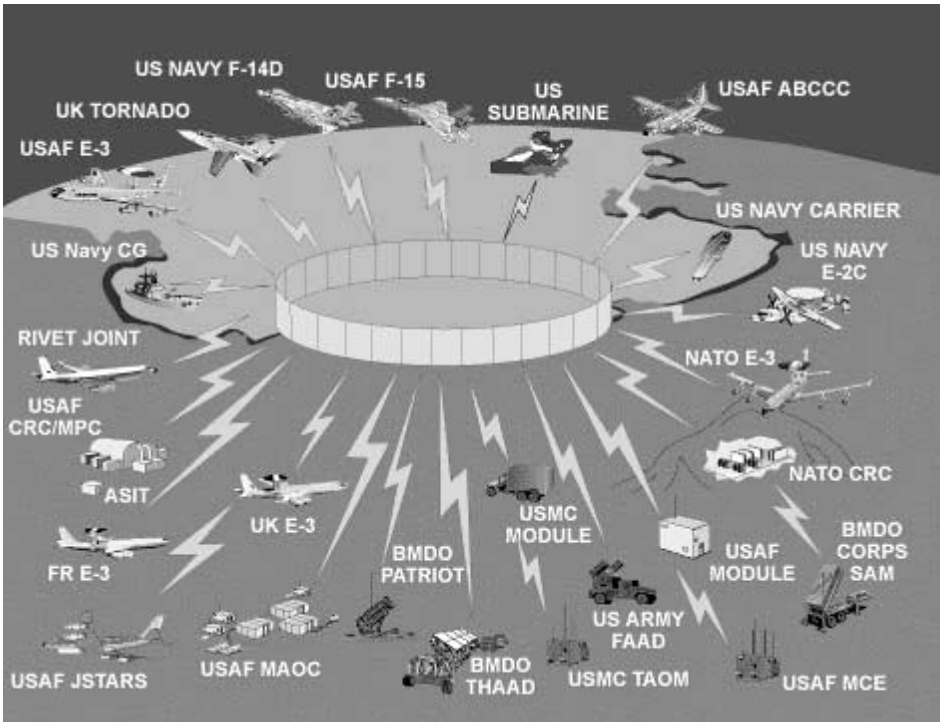
The Marine Corps NDF is a component of the Systems Engineering and Integration Support Division of MCTSSA. It provides the following functions in execution of its duties:

- Design Marine Corps-specific operational and test networks and provide input to Joint, Combined, or Coalition network designs.
- Validate the technical accuracy of Marine Corps networks, as required, using appropriate means.
- Develop and distribute terminal initialization files (NDLs) to Marine Corps JTIDS/MIDS equipped units.
- Develop and maintain the Marine Corps Network Design Library and provide configuration management for all Marine Corps networks.
- Maintain a technical reference library of Marine Corps and system related documentation.
- Provide technical assistance on the JTIDS Class 2/2H and MIDS terminals, TADIL J messages, JTIDS network design, JTIDS network requirements analysis, and other related subjects.
- Provide technical assistance to field units to ensure previously designed operational networks meet the needs of the network participants.
- Assist Project Offices in the review of technical changes (e.g., Interface Change Proposals) to determine their impact on network designs that are resident on the service and joint network libraries.

- Serve as the focal point for addressing TADIL-J training covering LINK-16 architectures.

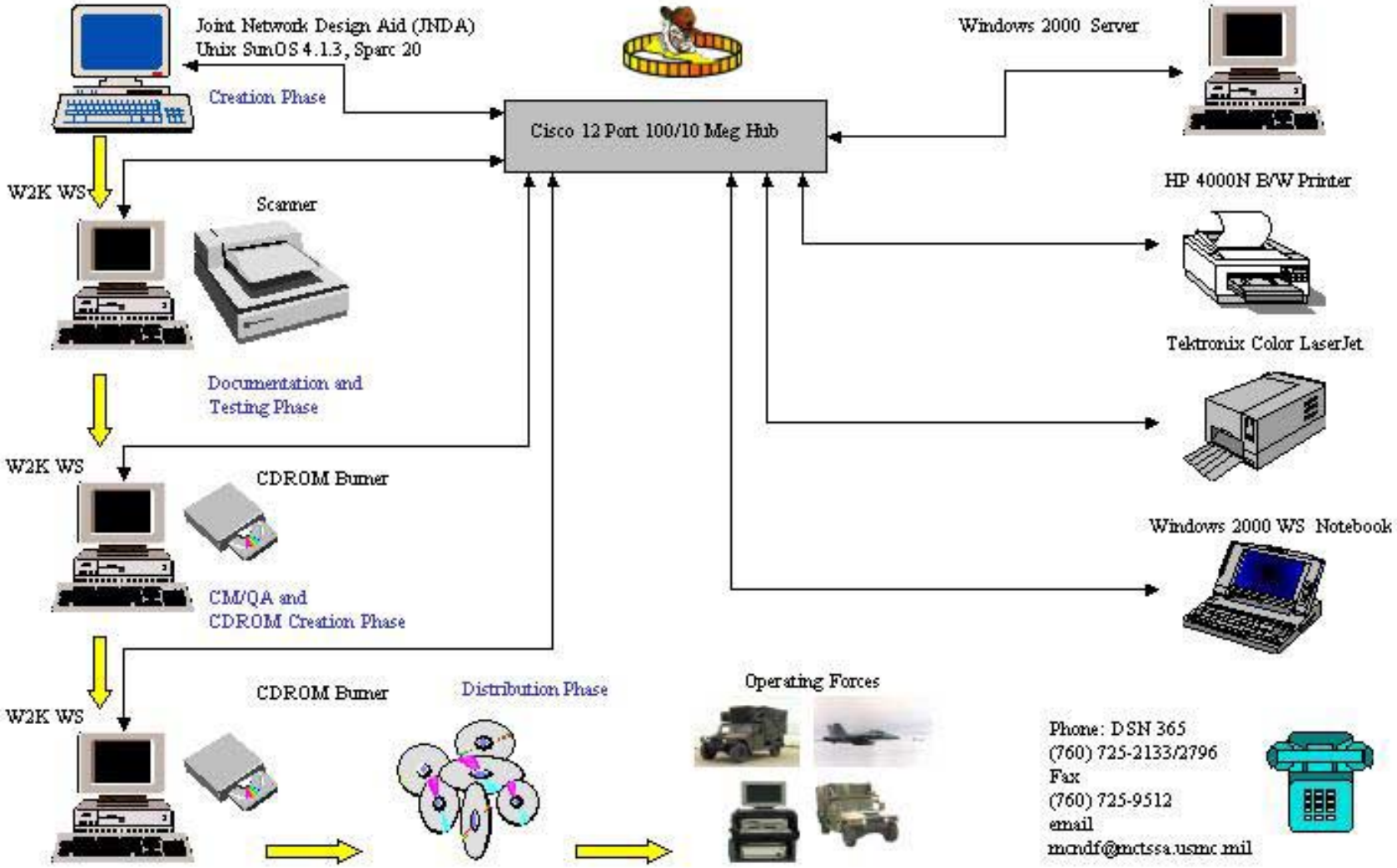
- Represent the Marine Corps during exercise planning conferences and TADIL-J network design meetings at Joint and Combined forums, as necessary, to ensure Marine Corps requirements are addressed.

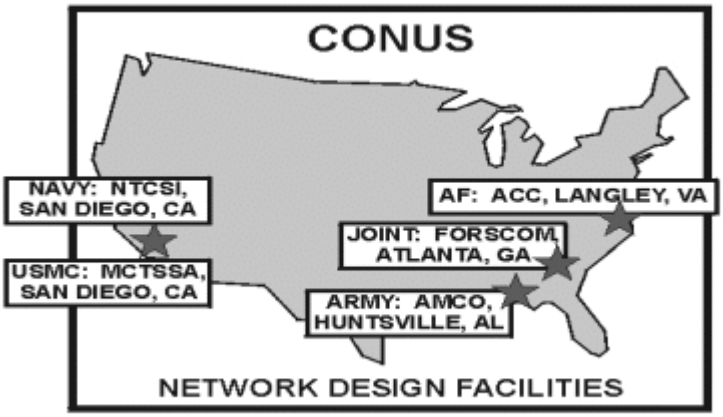
- Work with FORSCOM and other service NDFs in establishing procedures and standards that enhance the operational effectiveness of TADIL-J networks.



MC Network Design Facility

Functional Diagram





♦ NETWORK DESIGN FACILITIES LISTING

- HQ FORSCOM/AFOP-JTS
  Attn: JNDL
  1283 Anderson Way SW
  Fort McPherson GA 30330-1062
  DSN: 367-3146/4744

- Commanding Officer
  MCTSSA
  Attn: SE&ISD NDF
  Box 555171
  Camp Pendleton CA 92055-5171
  DSN: 365-2133/2796

- Navy Network Design Facility
  NCTSI
  53690 Tomahawk Drive
  Suite A125
  San Diego CA 92147-5082
  DSN: 553-9115/9276

- Commander USAAMCOM
  Attn: Army NDF
  AMSAM-RD-BA-C3I
  Bldg: 6260
  Huntsville AL 35898-5260
  DSN: 746-0752/6683

- Headquarters ACC/DISG
  Attn: JTIDS NDF
  205 Dodd Blvd
  Suite 101
  Langley AFB VA 23665-2789
  DSN: 574-8328/8329