

CTC's Transportation Capacity Planning Tool – a USMC “Bridge Technology” Success!

The Transportation Capacity Planning Tool (TCPT), designed and developed by Concurrent Technologies Corporation (CTC), has grown into an approved Global Combat Support System-Marine Corps (GCSS-MC) “bridge technology.” TCPT is successfully used by the Marine Corps to provide near-term transportation planning, management, and execution capabilities to supply its operating forces. As a Web-based application, TCPT replaces a time-consuming, paper-based system and provides decision makers with a common operational environment and real-time visibility of resources to enable faster reactions to a dynamic wartime environment.

TCPT works across time zones and allows Marine Corps personnel to see essential information regarding a Marine unit's requests for resources, the supporting units with the capacity to fulfill those requests, and the availability of all equipment and personnel resources needed for the mission, including drivers with certified licensing. Previously, a dispatcher would have to search through stacks of paper files to find drivers licensed to operate particular vehicles and then attempt to determine if the drives were available for the mission's timeframe. With TCPT, what used to take hours now takes only seconds; with a few keystrokes or clicks of the mouse, the dispatcher can directly access the records and availability status of all personnel and equipment. High priority events such as medical evacuations are instantly recognizable in the application as MEDEVAC alerts, allowing for an immediate response of resources. Users of TCPT, from unit personnel who submit the requests (known as Transportation Movement Requests [TMRs]) to those at the Command decision level, can see these details in a “dashboard” view unique to their access level. This dashboard view consists of:

- A five-day forecast “snapshot” of the transportation capacity of a unit and a rollup of subordinate units, which is automatically recalculated every five minutes to maintain information in near real-time
- The Unit Run Roster showing the status and total count for a unit's TMRs, missions, and resource assignments
- A 24 Hour Watchlog containing manual entries made by users, as well as automatically event-triggered entries
- The Graphic Mission Tracker, which displays mission status in graph form and includes the mission identification number, destination, and contact information, as well as the current status for all missions associated with the user's unit and subordinate units.

A key element of TCPT is the Master Log module, which uses information from the TMR and the resulting mission to automatically populate the unit's master log and produce a trip ticket for mission execution. The master log contains all details of the mission such as vehicle serial number, driver information, destination, number of passengers, cargo weight (fuel cargo and water cargo in gallons), departure time, and expected time of return. Upon mission completion and return of the trip ticket, information is updated and added to the master log, which is used in preparing monthly status reports.

An example of how TCPT is used: A Marine infantry unit needing a resupply of meals-ready-to-eat (MREs) and water would enter the TMR into TCPT and submit it to the supporting unit. The supporting unit personnel assigns the TMR to a mission and forwards it to the motor pool, which supplies the resources to support the infantry unit's request. Using TCPT, the motor pool personnel selects both the equipment (by model number and/or serial number) and licensed driver(s). The motor pool affirms the cargo load of MREs and water for the mission, and the supporting unit gives the final approval. The pending mission resides on the Graphic Mission Tracker awaiting actual execution. The dispatcher provides the driver with the trip ticket from the unit's master log, and the supporting unit personnel enters the start date, time, and current status of the mission into TCPT. The supporting unit personnel will continue to periodically update status throughout the mission. Upon completion of the mission, the supporting unit personnel adds the necessary information into TCPT. The driver returns the completed trip ticket to the dispatcher, who then completes the master log entry. At this point, TCPT will show that the equipment and personnel are now available to support future missions.

Deployed in March 2008, TCPT is hosted at Marine Corps Base, Quantico, Virginia, on the Non-secure Internet Protocol Network (NIPR – nonclassified) and is being used in garrison (at Marine home bases) by I, II, and III Marine Expeditionary Forces (MEFs) and the Marine Forces Reserve. As of December 2010, more than 6,400 Marine Corps users have entered over 106,000 TMRs and 100,000 missions into the application. TCPT currently holds information on 1,450 units, 16,744 personnel profiles, and 26,310 equipment profiles. Because of the high degree of success with which the application has been used by our Marine Corps client, TCPT was deployed to the Secure Internet Protocol Router (SIPR – classified) network in May 2010 at I MEF (FWD) in Afghanistan. At this point, the entire Marine Corps enterprise is utilizing TCPT – truly a success story for CTC's Enterprise Logistics Operations Center!

For additional information on TCPT, contact Joe Stevenson, 814-269-6594, stevenson@ctc.com.