CHAPTER 8
UTILIZATION OF TM 5-301

8-1. Planning

The importance of the planning phase of any undertaking cannot be overemphasized. This is certainly true in providing construction support for the Army in a theater of operations. The construction requirements fluctuate because of national policies, contingency plans, escalation or de-escalation of operations, geographical locations and conditions, and availability of resources.

The facilities and installations in the AFCS have been developed to satisfy many of the Army's construction requirements in accordance with criteria contained in JCS Publication No. 3. The requirements for the AFCS components are provided by major Army commands and elements of the DA staff. Approval of requirements is received from proponent elements of the DA staff per AR 415-16. For example, The Surgeon General established the requirements for and approved the medical components in the AFCS.

The AFCS components are continually updated to ensure adherence to current doctrine and actual field requirements. A range of construction materials is used in developing the components so that planners and users have the flexibility to select those components that best meet their requirements and resources. The resources consist of personnel, transportation, construction materials and equipment.

Planning for construction support of an Army operation should include the following steps as a minimum:

a. Provide contingency or operational plans to determine the scope of construction requirements. Coordinate with technical and administrative staff elements to determine their facility and installation requirements in the theater.

b. Evaluate intelligence data and other information to determine the number and type of existing facilities and installations that are required. This evaluation should include the availability of utilities (water, electric power and sewage treatment) and the availability of construction materials within the theater. The base development process is described in FM 31-82.

c. Determine the standards of construction to be used for the facilities and installations based on the operation duration, military objectives and availability of resources.

d. Select the AFCs facilities and installations necessary to satisfy the construction requirements. This selection should exclude the requirements that can be met with indigenous resources. In his selection, the planner should include allowances for facilities that may be damaged, such as blown bridges and railroad tracks. A matrix of damage and repair facilities (Kits) is being added to the next change to TM 5-304. Those repair kits are included in this manual and TM 5-303.

e. Evaluate manpower resources to determine whether U.S. contractors, troop units, local contractors and self-help programs are to be used in the construction work. Review Prepackaged Expendable Contingency Supplies (PECS) as necessary to determine what expendable construction supplies are required by engineer units in support of minor repair requirements that do not warrant a requisitional facility.

f. Determine the real estate requirements and initiate actions for the acquisition of the real estate.

g. Estimate the construction effort, cost of construction materials, and logistical data for transporting the materials. Add the overseas transportation costs to the material costs shown in this manual if the total cost of materials to be delivered to the theater is required. Also add local labor and material costs, if appropriate.

h. Requisition the construction materials and identify long-lead-time procurement items so that construction tasks will not be unnecessarily delayed.

i. Establish a management-control system such as Critical Path Method (CPM) techniques to keep construction tasks on schedule.

8-2. Example Problems

Several example problems demonstrating the use of AFCS to both engineer and non-engineer users is contained in Chapter 4 of TM 5-304.