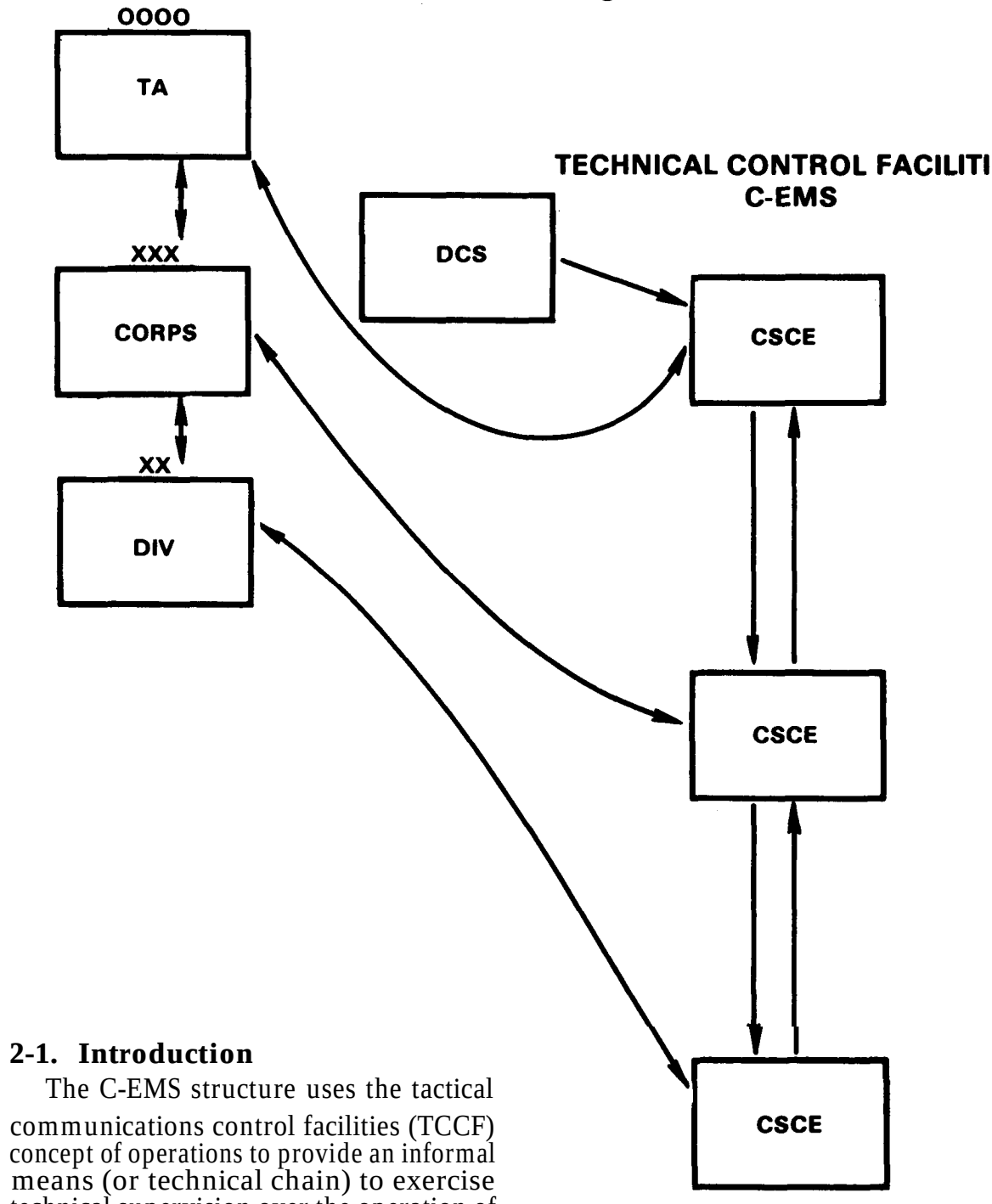
Chapter 2 Management Objectives



2-1. Introduction

The C-EMS structure uses the tactical communications control facilities (TCCF) concept of operations to provide an informal means (or technical chain) to exercise technical supervision over the operation of the communications systems. Elements of this C-E management structure are assigned to various echelons, with formal ties through the normal chain of command (fig 2-1).

Figure 2-1. Chain of Command and Technical Control Facilities Parallel Structure

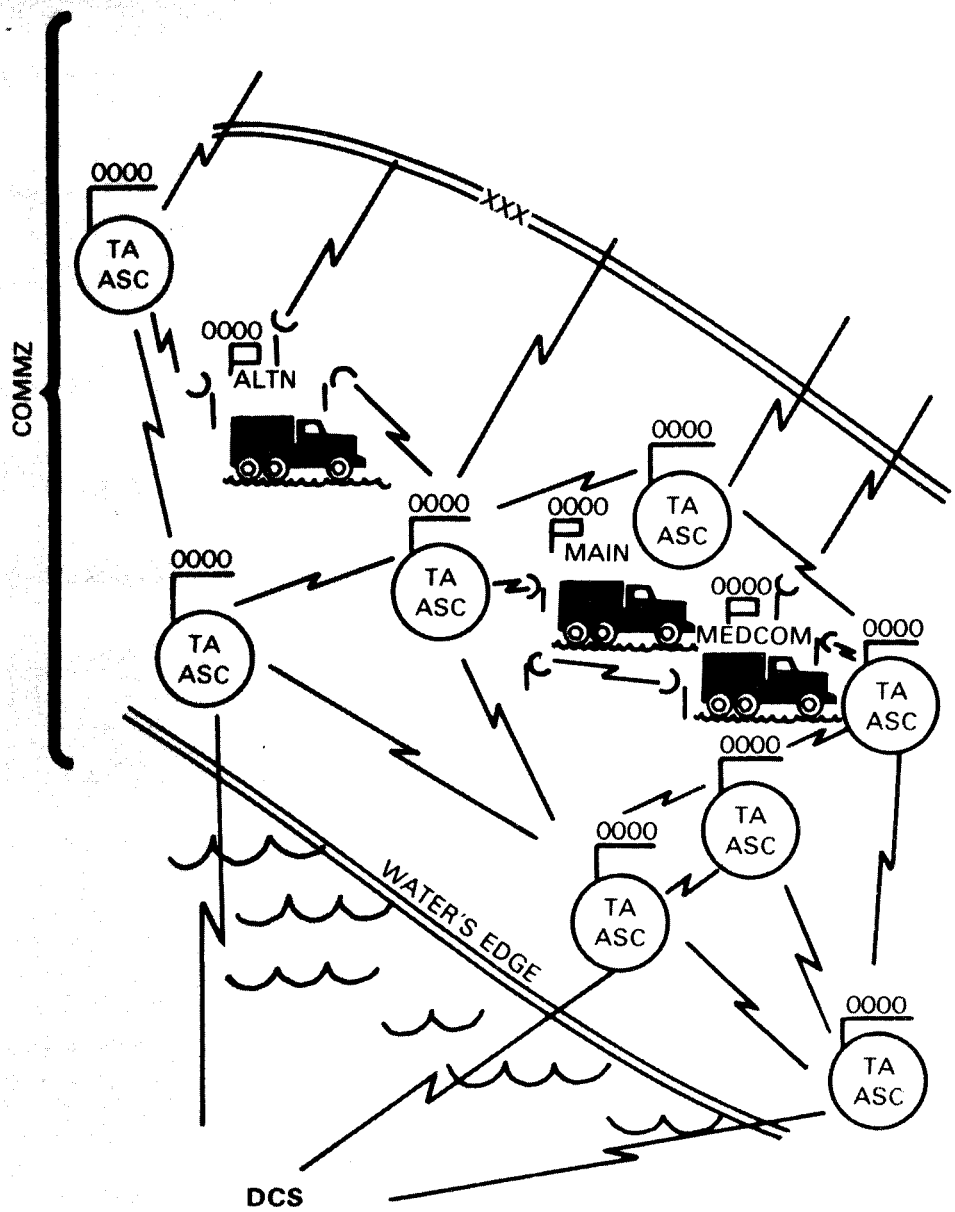


Figure 2-2. Communications in the COMMZ

a. C-EMS begins at the highest Army echelon within a theater of operations and extends down the chain to the operating elements located at each signal node, center, or site. The elements that actually exercise managerial and technical control at each echelon (i.e., theater army, corps, division) are described throughout this manual.

b. The doctrine of a command system superimposed on an area system provides the optimum communications system for a COMMZ (fig 2-2). The command system provides the theater army commander with the means to exercise command and control of combat operations; the area system serves the needs of the combat support and the combat service support elements. The two systems are again complementary because the signal centers at the major commands and major subordinate command headquarters have

access to both systems. Thus, when command headquarters move or when portions of either system become inoperative, high precedence traffic being passed over the affected system may be rerouted through operating portions of the other system. Interface points are provided to the DCS to provide worldwide access.

c. This manual establishes C-EMS procedures and techniques for the current and future C-E systems. The C-EMS provides management and control guidelines and C-E system standardization for commanders and staff elements who plan, engineer, and/or control these systems. The management and control doctrine established by C-EMS is based on the Department of Defense/Joint Tactical Communications Office (TRI-TAC) philosophy of joint services and the merger into a common C-E system. The joint service concept requires that certain conditions be made. These are—

(1) Management policies, in both the planning and operating stages, must be harmonious, if not identical.

(2) Technical parameters must be standardized.

(3) Equipment must be compatible.

(4) Terminology must be universal.

2-2 Management Policies

Conditions will be established through an intensive standardization program that permeates the entire spectrum of C-E management. The conditions will be discussed in perspective to their impact on C-EMS throughout the manual.

a. C-EMS directs such functions as the determination of equipment status, disposition and allocations of communications resources, determination of precedence, levels of security access, and equipment interface. It also exercises direction of control functions (monitoring, testing, restoration, and reporting). The C-EMS organizational structure uses the TCCF concept to provide an operational chain that exercises technical supervision of communications system operation.

b. The individual parts of the control chain are assigned at the various echelons but operate the C-E systems under a "master plan" that specifies procedures and standards. The normal chain of command provides implementing supervision, insures adherence to directives, and identifies communications requirements to upgrade or improve support for combat operations.

c. The objective of immediate response to user needs dictates total understanding between C-E elements. C-EMS is dedicated to developing universal standards and procedures that achieve this. Planning, engineering, and installation operation will be understandable at all levels and by all members of the C-E community. C-E doctrine is a composite of DOD policy, Defense Communications Agency (DCA) technological direction, the concepts of TRI-TAC, and operational mission requirements.

2-3 Standardization of Technical Parameters

DCA has systematically researched the problems encountered in the area of technical communications. This research has resulted in a usable data bank of technical communications standards (parameters). These standards (as set forth by DOD) apply to all services. Stringent application of these parameters to all circuitry will enhance interface capability and insure quality service to the subscriber.

Application of the exacting (and sometimes complex) parameters demands well-trained operators and supervisors. A comprehensive training

program is an absolute necessity to enable technical control, operator, and maintenance personnel to employ equipment properly.

2-4 Equipment Compatibility

The TRI-TAC development program is directing the use of like equipment throughout DOD. The separate services are tasked for designing, testing, and procuring the new items (for instance, the Army is responsible for the tactical automatic switching (TAS) system; the Air Force is developing the TCCF). When the new family of equipment is fielded, inherent compatibility will be achieved. In the interim, use of current inventory equipment demands constant attention to interface problems.

2-5 Terminology

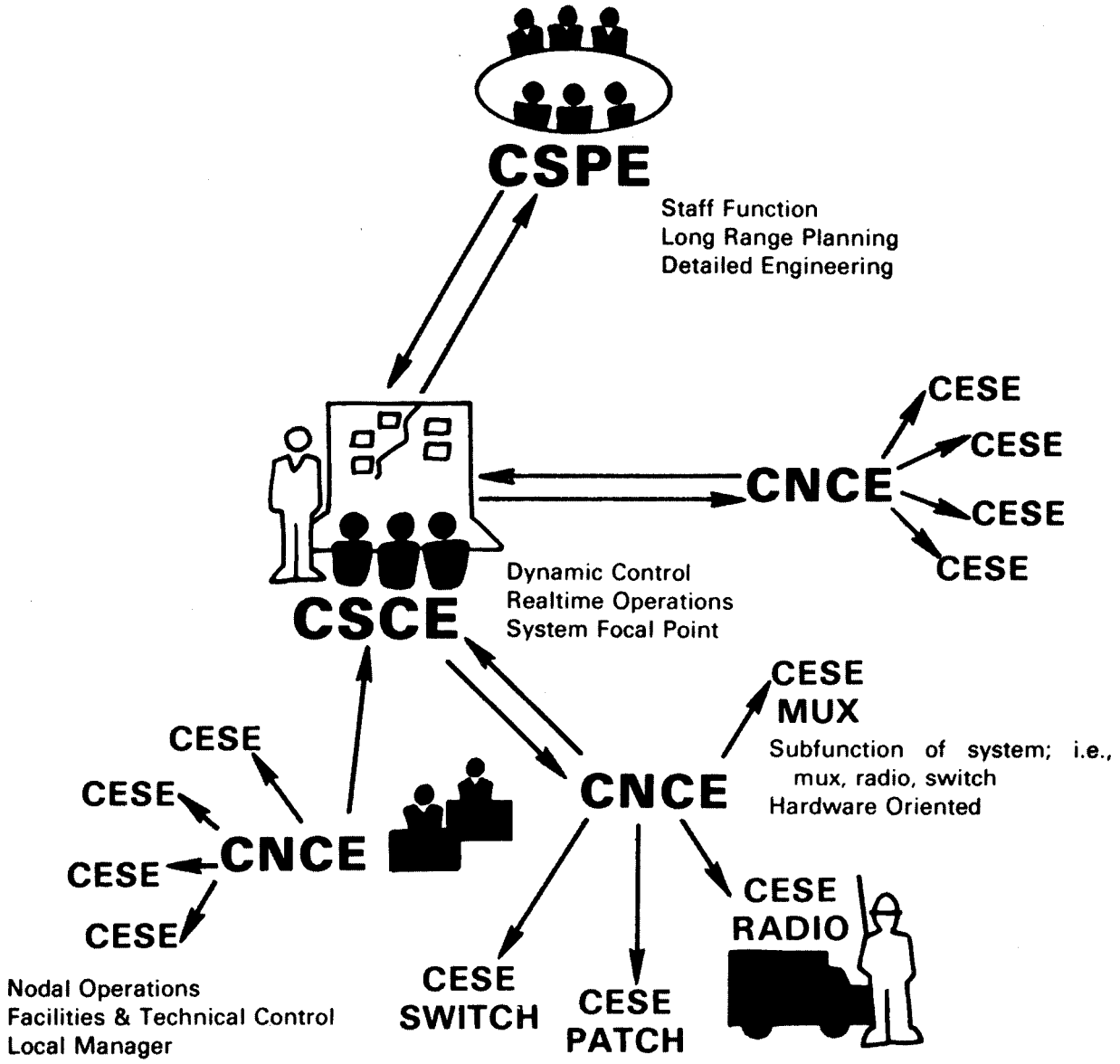
To understand the C-EMS management structure, a common terminology is being introduced into the Army's C-E management system. The terminology used in this manual has been developed for use by all DOD services under the Joint Tactical Communications System Program (TRI-TAC). It is consistent with current developments for the Army's tactical C-E systems and developmental equipment that will be introduced into the signal community through the 1980's. It is approved by the Joint Chiefs of Staff for use with the TCCF.

Terminology must be universal. As new systems and techniques evolve, new descriptive terms will be used to describe both equipment and functions. New developments cannot be described in old terms with precision; so new terms have evolved for use throughout DOD. Generally, technical terms have been promulgated by DCA and are published in DCAC 310-70-1, Volume IV.

2-6 C-E Management

Under the C-E management system, the management structure is divided into the four elements listed below and described in figure 2-3.

Element	Function
CSPE	Planning/Engineering
CSCE	Overall Control
CNCE	Local/Nodal Control
CESE	Operating Facility



Note: C-E Management is divided into four sub groups

CSPE	Planning/Engineering
CSCE	Overall Control
CNCE	Local/Nodal Control
CESE	Operating Facility

Figure 2-3. C-E Management