By Order of the Secretary of the Army:

GORDON R. SULLIVAN
General, United States Army
Chief of Staff

Official:

MILTON H. HAMILTON
Administrative Assistant to the
Secretary of the Army
03878

DISTRIBUTION:

Active Army, USAR, and ARNG: To be distributed in accordance with DA Form 12-11E, requirements for FM 8-10-19, Dental Service Support in a Theater of Operations (Qty rqr block no. 5231).

*U.S. Government Printing Office: 1993 — 728-027/60138

FOREWORD

A highly trained and well equipped ready dental force is the essential ingredient for successful accomplishment of the dental service support mission.

The dramatic changes in the course of world events of the early 1990's, marked by disintegration of the former Soviet Union and the disappearance of the Iron Curtain, have become the basis for a "New World Order." The primal threat to United States interests posed by massive Warsaw Pact forces arrayed against Western Europe no longer exists; however, the threat posed as a result of regional conflicts throughout the world where United States interests are at stake remains. The defense strategy of the United States has adapted to the changing threat by shifting away from a massive forward-deployed force strategy toward one which relies on rapid projection of United States-based contingency forces in response to regional conflicts.

As part of the overall health service support system, dental service support must be responsive to the needs of the fighting force whenever and wherever they may be employed. To do so, dental units and dental assets must be prepared to support a broad range of contingencies from humanitarian assistance as part of low-intensity conflict to the high-tempo operations of mid- to high-intensity conflict. Today, more so than ever before, flexibility and the capability to adapt to rapidly changing situations will be the catalyst for successful accomplishment of the dental service support mission.

This manual contains the doctrine which will be used into the next century to provide dental service support in the theater of operations. It is the binding element of the dental service support portion of Medical Force 2000 which also includes new dental organizations and modernized dental equipment, all designed and developed as a coordinated package. The doctrine contained herein goes beyond "standard" operations. It also addresses those nonstandard situations which have been the bane of the dental service support system in the past. Most importantly, it provides options and possible solutions to problems which will be posed by a myriad of possible contingency scenarios.

This publication represents the collective input of many individuals from within and outside the Army Dental Care System. It incorporates experience and lessons learned from many exercises and deployments throughout the world. It represents the concerns of the major commands. It also addresses the concerns and experiences of the Reserve Component. It is consistent with the overall health service support doctrine contained in the keystone Field Manual 8-10. It is truly an outstanding product and will enhance dental service support to the fighting force, now and into the future.

Thomas R. Tempel
Major General, Dental Corps
Chief, United States Army Dental Corps

CHAPTER 1

OVERVIEW OF DENTAL SERVICE SUPPORT

Section I. INTRODUCTION

1-1. General

Modernization of Army forces and combat doctrine requires that HSS doctrine evolve to meet changing needs. Medical Force 2000 (MF2K) is the Army Medical Department's (AMEDD) initiative to provide effective HSS to the Army of the twenty-first century. Dental support is one of the ten functional areas which comprise the MF2K HSS organization. Dental support enhances the combat power available to the commander by providing necessary care when and where it is required. This is accomplished through the use of modern, lightweight equipment, echeloned dental care, and flexible dental organizations. Dental support maximizes the return to duty (RTD) of dental casualties and sustains and maintains the dental fitness of deployed troops.

1-2. Tenets of Health Service Support

The MF2K organization offers substantial improvement infield dental support with particular attention to the following tenets of HSS:

a. Prevention. Prevention of disease and injury is the most resource-efficient means of maintaining the health of the soldier. The majority of inflammatory dental emergencies can be prevented with appropriate treatment and continued oral hygiene on the part of the soldier.

b. Return to Duty. A healthy, well trained, and motivated soldier is the most critical resource on the modern battlefield. The primary goal of field dentistry is to attend to the soldier's dental needs and return him to his unit as quickly as possible in a condition that allows him to effectively perform his mission.

c. Modular Medical/Dental Support. Dental units are designed under a modular concept to allow flexibility and ease of augmentation, reinforcement, or reconstitution. Dental elements under the modular support system (Echelon II) are found in the area support squad of division medical companies and corps area support medical companies (ASMCs). The dental modules in these units are identical to the modules found in the forward treatment sections of the medical companies and medical detachments (dental service) and the ASMCs. The dental module is composed of a dental officer, a dental assistant, and compact, high-technology equipment. Chapter 2 provides more detail on dental modules.

d. Enhanced Far Forward Care. Dental support is designed to provide dental care which allows the soldier to be treated as far forward as possible. Far forward care reduces the time and resources needed to evacuate a soldier for dental care.

Section II. CONCEPT FOR DENTAL SERVICE SUPPORT

1-3. General

Dental service support assists in accomplishing the AMEDD's mission to conserve the Army's fighting strength by—

- Preventing oral disease.
- Promoting dental health.
- Providing dental treatment as far forward as possible to eliminate or reduce the effects of dental disease and injury.
- Providing early treatment of severe oral and maxillofacial injuries for casualties that must be evacuated.

1-4. Echelonment of Health Service Support

Health service support is arranged into echelons. Each higher echelon reflects an increase in capability, but can perform the functions of each lower echelon. Dental assets in the TO are found at Echelons II, III, and IV. The glossary provides a description of the HSS Echelons of Medical Care, I—IV. Refer to FM 8-10 for a more detailed description.

1-5. Categories of Dental Care

Dental support in a TO is classified into three categories of care: emergency, sustaining, and maintaining. A fourth category of highly specialized support termed comprehensive care is available only in the continental United States (CONUS). These categories are not absolute in their limits; however, they are the general basis for the definition of dental service capability at the various echelons of HSS. Each category is successively greater in service provided and corresponding resources required to provide that service. Sustaining care is capable of less definitive treatment than maintaining care, but requires less equipment and is more suited to use further forward in the battlefield where weight and mobility are greater concerns. Conversely, maintaining care provides a much wider spectrum of services, but is far more resource dependent and less suited to use in a rapidly moving scenario. Again, categories of dental care are not intended as absolute boundaries. They are better thought of as additive zones with each higher category including the capability of those lower.

a. Emergency Care. Emergency dental care is given for relief of oral pain, elimination of acute infection, control of life threatening oral conditions (hemorrhage, cellulitis, or respiratory difficulties) and treatment of trauma to teeth, jaws, and associated facial structures. Consistent with the HSS tenet of RTD, this care is expeditious and is available throughout the TO. It is the most austere type of care and is even available to soldiers engaged in tactical operations. Common examples of emergency treatments are simple extractions, antibiotics, pain medication, and temporary fillings.

b. Sustaining Care. Sustaining care is dental treatment necessary to intercept potential emergencies. This type of care is essential for prevention of lost duty time and preservation of fighting strength. Soldiers in Dental Class 3 (potential dental emergencies) should be provided sustaining care as the tactical situation permits (see Appendix A for dental classifications). Common examples of sustaining care procedures are basic restorations, extractions, interim pulpal therapy (pulpectomy), treatment of periodontal conditions, and simple prosthetic repairs. Sustaining dental care is consistent with Echelon II HSS. Dental modules organic to divisions, separate brigade-size unit medical companies, ASMCSs, special forces groups (SFGs), and forward treatment sections of area support dental units are equipped to provide sustaining care.

c. Maintaining Care. Maintaining care is intended to maintain the overall oral fitness of soldiers at a level consistent with combat readiness. Soldiers in Dental Class 2 should be provided maintaining care as the tactical situation and availability of dental resources permit. Maintaining care is the highest category of care available in the TO and is provided by area support dental units. The scope of services includes restorative, exodontic, minor oral surgical, periodontics, endodontics, prosthodontic, and preventive procedures.

d. Comprehensive Care. Comprehensive dental care consists of those highly specialized procedures normally accomplished in fixed facilities in CONUS. Examples are reconstructive maxillofacial surgery, maxillofacial prosthodontics, and extensive oral rehabilitation and dental restoration. Though usually not available in the TO, comprehensive care is nevertheless a critical part of the dental continuum of care which extends from forward areas of the combat zone (CZ), through the communications zone (COMMZ), to CONUS base.

CHAPTER 2

ORGANIZATION OF FIELD DENTAL SUPPORT

Section I. INTRODUCTION

2-1. General

Dental service support is an integral part of the theater HSS system and shares in the overall AMEDD mission to conserve the fighting strength. The responsibility of the field dental care system is to maintain the soldiers' oral health by preventing and treating dental disease and injury. To accomplish this, dental support in the TO is organized into a flexible system which can respond to rapidly changing conditions across the continuum of dental care. Approximately two-thirds of the dental assets in the theater are organized into dental units whose primary mission is to provide dental service. The remainder are organic to Echelon II medical companies and Echelons III and IV hospitals.

2-2. Types of Dental Support

There are three types of dental support in the TO—unit, hospital, and area. They are defined primarily by the relationship of the dental assets with the supported patient population. Each type of support is described in this chapter.

Section II. UNIT DENTAL SUPPORT

2-3. General

UNIT dental support is provided by dental personnel organic to Echelon II medical units. Dental modules, briefly described in Chapter 1, are organic to the area support squads in the medical companies of divisions, separate brigades and armored cavalry regiments (ACRs), and the medical element of the SFG. Dental modules are also found in the area support squads of the ASMCs located throughout the CZ and COMMZ. The dental modules which are the basis of unit dental support have the capability to provide sustaining care as discussed in Chapter 1. Their primary objective, however, is to RTD the soldier as rapidly as possible consistent with the tactical situation. At times, circumstances may allow provision of expedient emergency care only, while at other times circumstances may allow the full range of sustaining care.

2-4. Unit Dental Support Organization

a. Dental modules are organic to the area support squad in the medical companies of each division, separate brigade/ACR, SFG, and area support medical battalion (ASMB). Each division has one comprehensive dentist (MAJ 63B) in the dental module of the main support battalion medical company and a general dentist (CPT 63A) in the dental module of each forward support battalion. A dental specialist (91E10) is also assigned as part of each of these modules.

b. The modules in separate brigade/ACR medical companies and SFGs have a CPT (63A) and a SPC (91E10). Similar to the division, the dental modules in separate brigades/ACRs are in the area support squads of the medical company/troop of the support battalion/squadron. The dental module in the SFGs is located in the medical platoon of the service companies.

c. Each unit support dental officer also functions as the dental surgeon for his supported unit–a special staff position. In the division, the 63B comprehensive dentist of the main support medical company is the division dental surgeon. The unit dental surgeon's responsibilities are discussed in greater detail in Section V of this chapter.

2-5. Concept of Operations

a. Unit dental personnel are not present in sufficient numbers to provide dental care to all the members of their supported units on a continuous basis without support from area support dental units. Therefore, depending on the situation, it may be necessary to return personnel to their units with other than definitive treatment (for example, temporary as opposed to permanent restorations).

The primary concern of unit dental personnel is to RTD the soldier as expeditiously as possible in a condition to continue his duties. Unit dental support relies on corps-level area dental support units for provision of higher categories of care (maintaining). Modules of area dental support units also augment or reconstitute unit dental elements when necessary.

b. Dental casualties in maneuver battalions are evacuated from forward areas to the battalion aid station. Here they are evaluated and, if required, are further evacuated to the clearing station of the medical company to be seen by the dental officer assigned to the area support squad. This officer will examine the patient and provide treatment necessary to return him to duty. If the treatment required is beyond the capability available, the patient will be evacuated or referred to the supporting corps area dental support unit or hospital, consistent with the patient's condition and the tactical situation.

Section III. HOSPITAL DENTAL SUPPORT

2-6. General

HOSPITAL dental support is provided by dental personnel organic to the combat support hospital (CSH), table of organization and equipment (TOE) 08705L; the field hospital (FH), TOE 08715L; and the general hospital (GH), TOE 08725L. Under MF2K, the mobile army surgical hospital (MASH), TOE 08765L, has no capability for dental support. Prior to the L-edition TOE, the dental sections organic to the hospitals were different from one type hospital to another. Under the L-edition TOEs, all hospital dental sections are identical.

2-7. Organization

a. The primary mission of hospital dental sections is to minimize loss of life and disability resulting from severe oral and maxillofacial injuries and wounds. When casualty care work load permits, dental resources provide dental treatment to hospital patients and staff. In addition, treatment is provided to patients referred by other dental and medical facilities when required oral and maxillofacial care is beyond the capability of the referring facility.

b. All three types of hospitals with organic dental capabilities (CSH, FH, and GH) are organized under the modular concept. Each has a hospital unit, base (HUB) and one or two additional hospital components. A CSH has an additional hospital unit, surgical (HUS). A field hospital has an additional hospital unit, holding (HUH). A general hospital has an additional HUS and an additional hospital unit, medical (HUM).

c. The dental capability of all three hospitals is found in the HUB and consists of four personnel—

- An oral surgeon (MAJ 63N).
- A comprehensive dental officer (CPT 63B).
- A preventive dentistry specialist (SGT 91E20X2).
- A dental specialist (91 E10/91E20).

d. The maxillofacial surgery capability in these hospitals can be augmented by attaching a medical team, head and neck surgery, TOE 08527LA. This team includes an oral surgeon (MAJ 63N). As with other units under the modular concept, the dental sections of the different hospitals are interchangeable. Significant pieces of equipment in the dental section of these Deployable Medical Systems (DEPMEDS) -equipped hospitals include—

- A dental hygiene materiel set.
- Two hospital dentistry materiel sets.
- A dental x-ray set.
- Three chair and stool units with lights.
- Three treatment units and compressors.
- Supporting items of equipment.

Section IV. AREA DENTAL SUPPORT

2-8. General

AREA dental support is provided by dental personnel and equipment organized into dental service units capable of providing all categories of dental care up to and including maintaining care. These units are the medical company (dental service), TOE 08478L; medical detachment (dental service), TOE 08479L; and medical team (prosthodontics), TOE 08588L. They are assigned to and under the command and control of the medical battalion (dental service), TOE 08476L (Figure 2-l).

As the name suggests, area dental support is provided within a designated geographic area of responsibility. However, within this area of responsibility, area dental support units may be tasked to provide direct support (DS) to unit or hospital dental support elements. They may also be tasked to reconstitute unit dental support modules with like modules within their own unit. Area dental support represents a major share of the dental capability within the TO. The remainder of this manual will focus primarily on area dental support and the units which provide it.

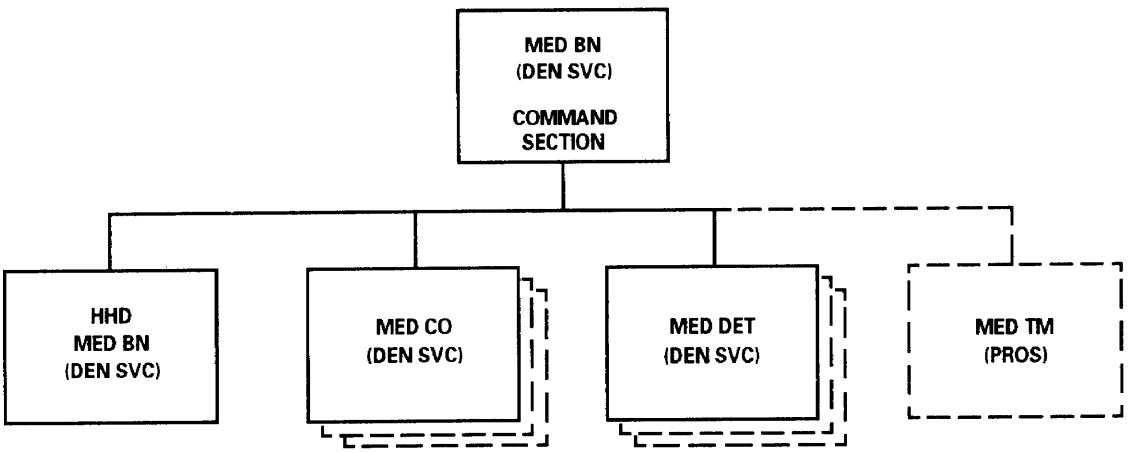


Figure 2-1. Medical battalion (dental service).

2-9. Headquarters and Headquarters Detachment, Medical Battalion (Dental Service) TOE 08476L

The headquarters and headquarters detachment (HHD) of the medical battalion (dental service) is the MF2K equivalent to the H-edition TOE unit, team AI, dental service headquarters. It is almost identical in size and capability.

a. Organization. The HHD is composed of three officers and seven enlisted members organized into two sections (Figure 2-l). The command section (two officers and one enlisted) has the commander (COL 63R), the executive officer (MAJ 67H), and the battalion's senior dental noncommissioned officer (NCO) (SGM 91E). The operations/administration section is composed of the medical operations officer (CPT 67H); the battalion nuclear, biological, and chemical (NBC) NCO (SFC 54B); a medical equipment repairer/supervisor (SSG 35U); the battalion personnel services NCO (SSG 75B); a medical supply sergeant (SGT 76J); the detachment clerk (SPC 75B); and a patient administration specialist (SPC 71G).

b. Mission. The HHD provides command and control to assigned and attached dental organizations. It also provides administrative, logistics, and personnel support to the headquarters and technical guidance to subordinate units on medical equipment maintenance and Class VIII supply.

c. Assignment. This unit is assigned to a medical command, TOE 08611L; medical brigade, TOE 08422L; or medical group, TOE 08432L.

d. Capabilities. This unit provides—

(1) Command and control of three to eight assigned or attached dental units.

(2) Allocation of dental resources (personnel and equipment) to ensure adequacy of dental service to all units within the assigned area of responsibility.

(3) Technical expertise, coordination, and support to subordinate units for accomplishing their medical equipment maintenance and Class VIII supply.

(4) Current information concerning the dental aspects of the combat service support (CSS) situation to higher headquarters.

e. Basis of Allocation. One per three to eight subordinate dental service organizations.

f. Mobility. This unit is capable of transporting 50 percent of its personnel and equipment in a single lift using organic vehicles.

2-10. Medical Company (Dental Service), TOE 08478L

The medical company (dental service) is the MF2K equivalent to the H-edition TOE unit, team HA, dental service detachment. It is almost identical in size and capability.

a. Organization. The medical company (dental service) has 16 officers and 44 enlisted members organized into four sections (Figure 2-2).

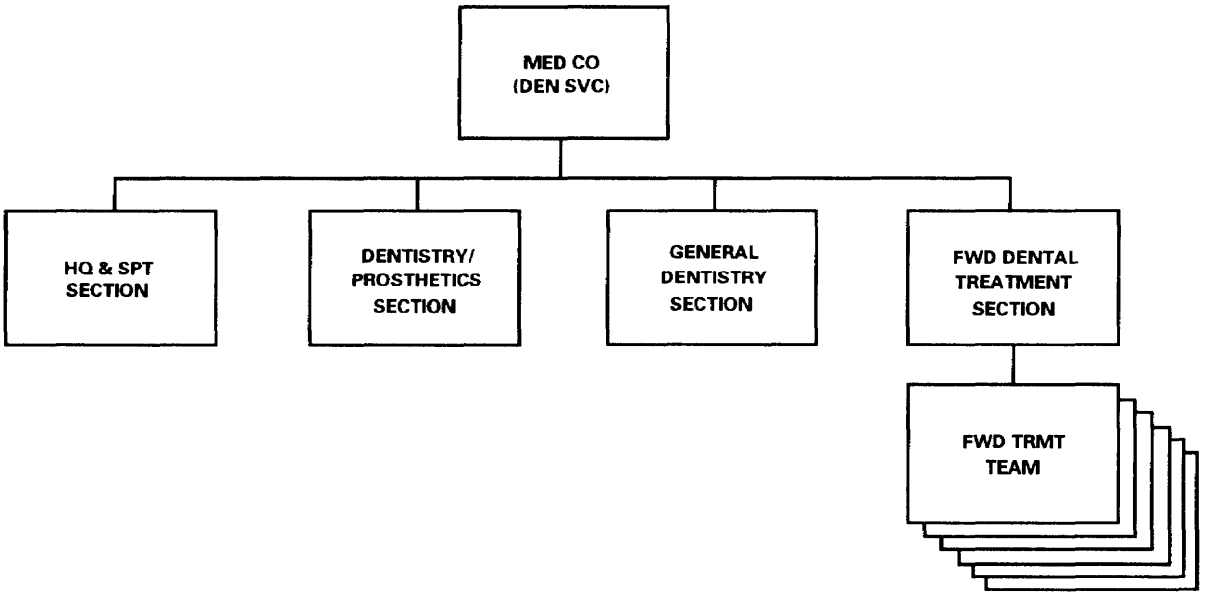


Figure 2-2. Medical company (dental service).

(1) The headquarters and support section (2 officers and 14 enlisted) is composed of the commander (LTC 63R), the executive officer (CPT 67B), and the company's senior NCO (MSG 91E), along with support personnel. These support personnel specialize in NBC operations; unit supply; health service logistics; administration; and automotive, power generation, and medical equipment maintenance. A cook is assigned, but as the company does not have the capability for independent field feeding, the cook is generally attached to the supporting field feeding facility.

(2) The dentistry/prosthetics section has a prosthodontist (63F) and three general dental officers (63A), a dental facility NCO (9lE), preventive dental specialists (91EX2), dental laboratory personnel (42D), and supporting dental specialists (91E). The medical company (dental service) commander also acts as chief of the dentistry/prosthetics section.

(3) The general dentistry section has a comprehensive dental officer as chief, three general dental officers, a dental facility NCO, preventive dental specialists, and supporting dental specialists.

(4) The forward dental treatment section is organized into six independent dental modules with organic power and transportation.

b. Mission. This unit provides emergency, sustaining, and maintaining dental care.

c. Assignment. This unit is assigned to the HHD, medical battalion (dental service), TOE 08476L.

d. Capabilities. This unit provides maintaining care, including prosthodontic specialty care, for 20,000 troops, or sustaining care for 30,000 troops on an area support basis. It is composed of from one to eight field dental treatment facilities (DTFs) consisting of one or two base DTFs providing maintaining care, and up to six dental treatment modules which can reinforce or reconstitute the division dental modules when necessary, or provide sustaining care for small or forward troop concentrations. The unit also provides unit maintenance of organic equipment for the HHD, medical battalion (dental service), TOE 08476L. It is capable of augmenting the advanced trauma management (ATM) capabilities of other medical treatment facilities (MTFs) during mass casualty situations.

e. Basis of Allocation. One per 20,000 troops supported.

f. Mobility. This unit is capable of transporting 50 percent of its personnel and equipment in a single lift using organic vehicles.

2-11. Medical Detachment (Dental Service), TOE 08479L

The medical detachment (dental service) is the MF2K equivalent to the H-edition TOE unit, team HB, dental service augmentation, general dentistry; however, it is larger and has much greater capability.

a. Organization. The medical detachment (dental service) has 6 officers and 22 enlisted members organized into three sections (Figure 2-3).

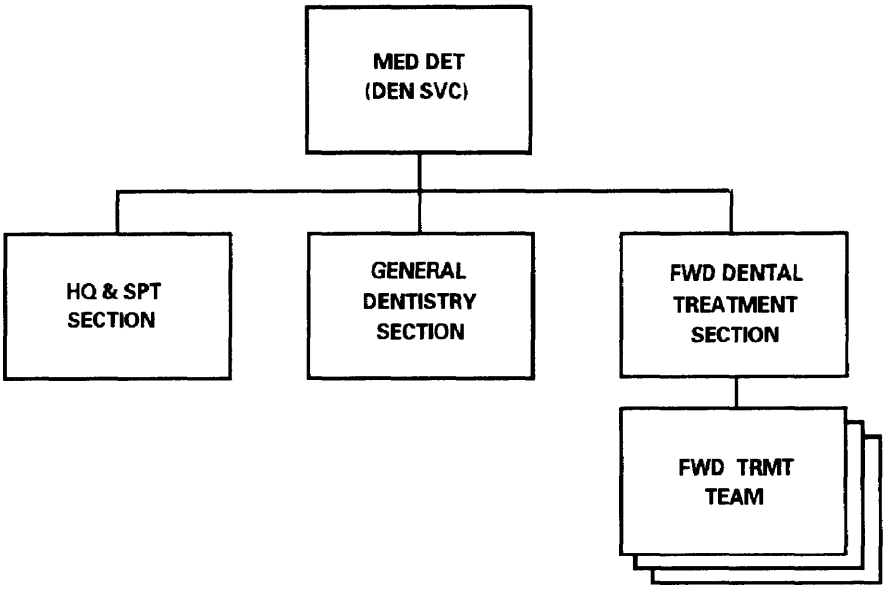


Figure 2-3. Medical detachment (dental service).

(1) The headquarters and support section (1 officer and 10 enlisted members) is roughly similar to that of the company, but smaller in size. The commander is a MAJ (63B) and the chief dental NCO is an SFC (91E). There is no executive officer. This section includes personnel for administration; health service logistics; and automotive, power generation, and medical equipment maintenance; but no field feeding capability. The detachment has no assigned cook or unit supply NCO.

(2) The general dentistry section has the unit commander as chief, two general dental officers, a facility NCO, preventive dental specialists, and supporting dental specialists.

(3) The forward dental treatment section is organized into three independent dental modules with organic power and transportation.

b. Mission. This unit provides emergency, sustaining, and maintaining dental care.

c. Assignment. This unit is assigned to the HHD, medical battalion (dental service), TOE 08476L.

d. Capabilities. This unit provides maintaining care for 8,000 troops, or sustaining care for 12,000 troops on an area basis. It is composed of from one to four field DTFs. These consist of a base DTF providing maintaining care and up to three dental treatment modules to reinforce or reconstitute the division dental modules when necessary, or provide sustaining care for small or forward troop concentrations. The unit is capable of augmenting the ATM capabilities of other MTFs during mass casualty situations.

e. Basis of Allocation. One per 8,000 troops.

f. Mobility. This unit is capable of transporting 50 percent of its personnel and equipment in a single lift using organic vehicles.

2-12. Medical Team (Prosthodontics), TOE 08588L

The medical team (prosthodontics) is the MF2K equivalent to the H-edition TOE unit, team HC, dental service augmentation, removable prosthodontics; and team HD, dental service augmentation, fixed prosthodontics. It is about the same size and has similar capabilities; however, it incorporates the consolidation of the removable and fixed prosthodontics specialties (63F).

a. Organization. The medical team (prosthodontics) is composed of a commander (prosthodontist) and four enlisted members, including a dental laboratory NCO, two dental laboratory specialists, and one dental specialist.

b. Mission. This unit provides additional prosthodontic dental support when required by augmenting existing dental and hospital organizations.

c. Assignment. This unit is assigned to the medical brigade (CZ) or medical brigade (COMMZ) with further attachment to a medical battalion (dental service).

d. Capabilities. This unit provides additional fixed and removable prosthodontics support for up to 40,000 troops.

e. Basis of Allocation. As required, based on stated capabilities.

f. Mobility. This unit is capable of transporting 33 percent of its personnel and equipment in a single lift using organic vehicles.

Section V. DENTAL STAFF

2-13. General

Coordination of the collective efforts of unit, hospital, and area dental support activities with the overall HSS operation is accomplished through dental representation on appropriate command and control staffs, usually in the form of a command dental surgeon. The dental surgeon is a special staff officer

under the coordinating staff supervision of the Adjutant (Sl)/Assistant Chief of Staff (Personnel) (Gl). In the medical brigade, the dental surgeon is a separate TOE position. In divisions, this position is filled by the comprehensive dental officer assigned to the main support battalion of the division support command (DISCOM). A dental unit commander who also serves as dental surgeon is described as being "dual-hatted." In some cases, the dental surgeon position is not clearly identified and becomes an ad hoc arrangement. In all of these cases, the dental surgeon works closely with the command surgeon to accomplish his mission. Staff advocacy is a critical element in the development of a coordinated dental service support system throughout the TO. Chapter 5—Command, Control, and Communications—discusses staff functions in much greater detail.

2-14. Responsibilities

a. The dental staff officer provides input to the commander on policy, procedures, and plans that concern oral health and dental care. He prepares the dental estimate and assists in preparing the dental portion of the HSS operation plan (refer to FM 8-55 for information concerning the preparation of HSS estimates and plans). He assists in writing the dental support portion of operation orders (OPORDs). He provides technical guidance on dental matters to subordinate dental resources. He monitors the oral health of the supported population, the readiness of unit dental assets, and the tactical and strategic situation of supported units. He also assesses HSS plans to determine dental resource requirements. Specific duties may include surveillance of—

(1) The oral health and dental readiness of supported units.

(2) Severe oral and maxillofacial surgery cases in hospitals.

(3) Status of dental resources in the area of responsibility.

(4) Operational requirements of supported troops (for example, number and types of units supported or in the area of responsibility; number of troops in supported units or area of responsibility; tactical and strategic situation; location and distribution of supported units; and expressed needs of commanders).

(5) The provision of dental services to enemy prisoners of war (EPW), refugees, and others.

b. The dental staff officer also serves as advisor to the commander on dental matters. On the basis of the information from surveillance, he makes recommendations concerning oral health and dental delivery for plans, OPORDs, and policy.

2-15. Dental Staff Officer Positions

a. Division. The senior dental officer in a division is assigned to the main support battalion. In addition to his patient care responsibilities, he acts as the division dental surgeon and exercises technical supervision over the dental assets in the division forward support battalions. Dental officers in the forward support battalions serve as dental surgeon to the supported maneuver brigades.

b. Separate Brigades, Armored Cavalry Regiments, and Special Forces Groups. The dental officer in the medical element of these units also serves as dental surgeon for the parent unit.

c. Medical Brigade (Corps: TOE 08422L1; COMMZ: TOE 08422L2). A dental surgeon (COL 63R) is located in the command section. He exercises technical control over dental assets in hospitals and dental units subordinate to the medical brigade. Dental surgeons of corps medical brigades are dual-hatted as the corps dental surgeon and provide technical supervision for unit-level dental support (in divisions, separate brigades, and ACRs) as well as for dental assets assigned within the brigade. The medical brigade dental surgeon is complemented by a senior dental NCO (MSG 91E50) assigned to the security, plans, and operations section.

d. Medical Command (TOE 08611 L). There are three dental staff officers in the headquarters company.

(1) The medical command (MEDCOM) dental surgeon (BG) establishes and disseminates

Army theater policy on dental matters. He exercises technical control over all dental units in the TO through the medical brigade dental surgeons. He directs the dental service element of the headquarters and provides dental staff support to the MEDCOM commander.

(2) The MEDCOM assistant dental surgeon (COL 63R) is located in the dental service element of the headquarters. He assists the MEDCOM dental surgeon by recommending policies and procedures and providing dental coordination with other staff elements.

(3) The MEDCOM preventive dentistry officer (LTC 63H) supports the MEDCOM dental surgeon and assistant dental surgeon in all staff actions. Specific duties include—

- Providing oral health surveillance information in support of policy and procedure development.
- Developing plans and orders concerning oral fitness and preventive dentistry programs.
- Recommending treatment policies.
- Developing programs for dental support of humanitarian and civic action operations.

CHAPTER 3

FIELD DENTISTRY

Section I. INTRODUCTION

3-1. General

The practice of dentistry in the TO requires employment of the same fundamental skills and standards of practice as would be employed in a garrison clinic. The basic principles learned by dental officers in dental school and graduate education, and by enlisted personnel during the course of their military occupational specialty (MOS) training are applicable in the field environment. The limitations imposed by availability of equipment and the demands of the tactical situation require flexibility and expediency on the part of both the dentist and ancillary personnel. In no case, however, can the basic principles of dentistry be compromised. Dental commanders at all levels must establish a sound quality assurance (QA) plan as described in Appendix B.

3-2. Objective

The primary objective of field dentistry is to RTD the patient as quickly as possible based on the tactical situation, while at the same time attending to his dental needs. In the case of troops in contact, the situation may permit only temporary alleviation of pain and suffering. Under less-demanding circumstances, the situation may permit more definitive treatment. In all cases, the practitioner should endeavor to accomplish as much as possible in a single sitting, thus avoiding return visits and subsequent lost duty time. This requirement places a great emphasis on the professional judgment of the practitioner and a need to reconcile patient needs with the tactical situation. Likewise, field DTFs should be organized to accomplish the task at hand consistent with the mission of the supported organization(s).

3-3. Evacuation Versus Referral of Dental Patients

This FM frequently mentions the need to evacuate a dental casualty with the word "evacuate" being used in a very general sense. In reality, there are times when dental patients will require *evacuation* in the doctrinal sense of the word. At other times, there will be a need, depending on the tactical situation, for expeditious RTD after the accomplishment of emergency treatment and subsequent *referral* for a higher level of treatment (sustaining or maintaining) when the tactical situation permits. When to evacuate, when to RTD, and when to refer are matters of clinical judgment based on patient presentation and beyond the scope of this manual. It is left to the reader, therefore, to make the proper interpretation of the generic term "evacuate" based on the situation to which it might apply.

a. *Evacuation* — transfer of a patient from a lower echelon of care to a higher echelon at either an MTF or a DTF using medical evacuation assets and established evacuation procedures.

b. *Referral* — referral of a patient from a DTF for follow-up treatment when the tactical situation permits. Generally, transportation to a referral DTF is the responsibility of the patient's unit. Use of medical evacuation assets may be feasible, however, when the situation permits transfer of routine or convenience category patients.

c. *Return to Duty* — assumes that a soldier is capable of performing his mission in an austere combat environment. Soldiers who cannot be placed in a fully capable condition, or who require pharmaceutical regimens which impair performance, should be evacuated to the next higher echelon of care rather than RTD.

Section II. FIELD DENTAL EQUIPMENT

3-4. General

Field dental equipment is organized into dental equipment sets (DES) and dental instrument and supply sets (DISS). In the DEPMEDS-equipped hospitals, the dental staff is equipped with DEPMEDS dental materiel sets (DMS) and additional supporting items. Most modernized DES are organized to support

a specific category of dental care (emergency, sustaining, and/or maintaining). Consistent with the earlier definition of these categories, each set has the capability for subordinate categories of care. The DES are assigned to the TOE of medical/dental organizations consistent with their mission.

3-5. Design

Dental sets are designed according to the category of dental care they are expected to support; however, other important factors are also considered. Mobility factors such as weight, volume, and low power demand were important considerations for design of sets intended for use in forward organizations, and a lesser consideration in those units to be employed further to the rear. Standardization of the materiel within the sets is consistent with Army policy and eases Class VIII resupply. Each set provides dental equipment and materials necessary for accomplishment of those dental procedures normally associated with the category of dental care to be supported.

3-6. Description

The unit's TOE shows the type and quantity of dental sets authorized. Current authorized contents for each set are listed in the DA supply catalog for that particular set. Recommended changes to DES and DISS can be submitted through command channels on DA Form 2028 to the Commander, AMEDDC&S, ATTN: HSMC-FCO-S, Fort Sam Houston, Texas 78234-6100.

a. Emergency Care. Every dental officer in a TOE position, with the exception of those in staff positions, is assigned a DISS, emergency treatment, field. This small (13 lb, 1 cu ft), dental emergency kit is contained in a hand-carried medical aid bag. It contains the bare minimum of instruments and materials for simple extractions and expedient temporary restorations. Key in this kit is a battery-operated handpiece which allows the dental officer to open an infected tooth, prepare a cavity for temporary restoration, or section a tooth for extraction. The DISS, emergency treatment, field, is intended for use when the situation does not permit setup of the dental officer's standard equipment.

b. Sustaining Care. The DES, designed to provide sustaining care, is the backbone of the dental module described in Chapters 1 and 2. This equipment is light in weight, compact, rugged, has limited power demand, and is highly mobile. It represents the latest in dental technology. Authorized to units with a unit dental support mission and the forward treatment sections of the medical company (dental service) and medical detachment (dental service), it consists of—

- *Dental support, DES.* This set, found in both maintaining care sections and the dental modules providing sustaining care, provides necessary support items including: sterilizer, sink, laboratory table, oxygen, and an emergency medical resuscitation kit.

- *Lightweight operating and treatment unit.* This unit has a self-contained compressor and suction unit and is supported by a lightweight field dental chair and operating light. It replaces the heavier operating and treatment unit and separate compressor currently authorized in the dental modules.

- *Operatory, field, lightweight, DES.* This set contains instruments and materials to accomplish basic restorative dental procedures, extractions, cleanings, and stabilization of minor oral and maxillofacial injuries. It replaces the heavier DES, general dentistry, currently authorized in the dental modules.

- *Hand-held dental x-ray.* This high-technology device supported by self-developing dental film replaces the much heavier DES, x-ray, and x-ray apparatus currently authorized in the dental modules.

- *Emergency denture repair, DISS.* This small set provides basic materials for expedient denture repairs.

c. Maintaining Care. Maintaining care basically provides for the full range of dental service normally associated with general dentistry including operative dentistry, oral surgery, endodontics, periodontics, prosthodontics, and dental prophylaxis. Units with a maintaining care mission are equipped accordingly. The major equipment items of the maintaining care DES are much the same as were authorized in the old H-edition TOES; however, the

sets have been significantly upgraded and modernized. Capability consistent with maintaining care requirements, sometimes at the expense of mobility, was a major consideration in the design of the maintaining care sets. Maintaining care DES are assigned to the dentistry/prosthetics and general dentistry sections of the medical company (dental service) and to the general dentistry section of the medical detachment (dental service). The DMS found in the DEPMEDS-equipped hospitals are much the same as the maintaining care DES. Maintaining care DES include-

- *Dental support, DES.* This set, described in paragraph *3-6b* above, provides necessary support items.

- *General dentistry, DES.* This set includes the basic instruments and materials to accomplish most restorative dental procedures. Associated with this set are a dental chair and stool unit, an ADEC operating and treatment unit, a separate compressor, and a conventional dental light.

- *Dental hygiene, field, DES.* This set includes those instruments and materials necessary for the provision of preventive dentistry services by the preventive dental specialist, 91EX2. It has the same associated items of equipment as described above for the general dentistry, DES.

- *Maintaining care, augmentation, DES.* This set contains instruments and materials necessary to augment the general dentistry, DES for the provision of endodontics, periodontics, and oral surgical treatment. It is authorized on the basis of one each for the dentistry/prosthetics and general dentistry sections of the medical company (dental service) and one each for the general dentistry section of the medical detachment (dental service).

- *Dental x-ray, field, DES.* This modernized set, along with its associated 70 kilovolt (kv), 7 milliampere (ma) x-ray apparatus provides standard dental x-ray capability to the dentistry/prosthetics and general dentistry sections of dental units.

- *Prosthodontics, DES.* This set provides clinical and laboratory items necessary to support fixed and removable prosthodontic procedures in the dentistry/prosthetics section of the medical company (dental service) and the medical team (prosthodontics). It will be described in detail in a later discussion of prosthodontics in the TO. The prosthodontics DES must be used in conjunction with the general dentistry, DES.

3-7. Deployable Medical Systems/Hospital Dentistry

The DEPMEDS initiative is ajoint-service response to a congressional mandate to standardize Echelons III and IV hospital medical equipment throughout the theater. The DEPMEDS is managed by the Defense Medical Standardization Board under the direction of a joint-service committee made up of a general officer representing each service. Dental interests are represented at the joint-service colonel level.

a. Patient-Condition Based. The configuration of both DEPMEDS medical materiel sets (MMS) and DMS is based on a listing of patient conditions determined from sophisticated modeling. Medical materiel sets and DMS were designed based on treatment protocols (codes) developed by panels of consultants representing each service to treat the above patient conditions. Medical materiel sets and DMS are designed only to treat specific patient conditions based on these standardized treatment protocols.

b. Dental Materiel Sets. The DEPMEDS DMS, hospital dentistry and dental x-ray, along with other supporting DMS and equipment found in the hospital dental module, provide a maintaining care capability for the dental offcers assigned to the module. With the exception of greater oral and maxillofacial capability, there is little difference in the DES, general dentistry, and the DEPMEDS hospital dentistry set. The same is true for the x-ray set. The major supporting items of equipment (compressors, chair, x-ray, and so forth) are exactly the same for each.

c. *Oral and Maxillofacial Surgery.* Current DEPMEDS configuration requires the hospital oral surgeon to access any or all of three MMS and the DMS, hospital dentistry, to treat maxillofacial patients. The three MMS are

- Operating Room.
- Ear, Nose, and Throat Augmentation.
- Central Materiel Service COMMZ Augmentation.

Section III. DENTAL TREATMENT FACILITY ORGANIZATION

3-8. General

Dental treatment assets are organized into DTFs for the provision of dental service. The DTF may consist of a single dental treatment module, or a collection of dental assets collocated in a single facility. In most cases the organization of the DTF closely follows the TOE; however, DTFs may also be task-organized by the commander consistent with the mission. The dentistry/prosthetics and general dentistry sections, though originally designed to function as a collocated DTF, may be further split into self-sufficient DTFs using organic equipment.

3-9. Site Selection for the Dental Treatment Facility

Site selection is based on the geographic location, unit to be supported, and guidance from the base cluster commander and/or the base cluster operations center (BCOC). Other operational considerations for the DTF are the responsibility of the unit commander based on his mission and the tactical situation. These operational considerations are discussed in Chapter 4. Actual site selection is the responsibility of the officer in charge (OIC) of the DTF, determined in concert with the supporting unit. The best host unit for a DTF is a self-sustaining medical unit or MTF. Site selection considerations for the DTF are the same as those for MTF and include—

- Space required.
- Availability of power source if organic generators are not to be used.
- Terrain suitability.
- Accessibility to patients.
- Access to water supply, fuel, and food service facilities.
- Field sanitation and waste disposal.
- Security arrangements and camouflage requirements.
- Availability of medical support.

3-10. Shelter

The practice of dentistry and consideration for its associated materiel requires shelter from the elements and some degree of environmental control. The requirement for concealment of the dental shelter is a matter of unit standing operating procedure (SOP) and may be required by the supporting unit. It is an important consideration in both site selection and the type of shelter used. Selection of the appropriate shelter to fit the situation requires a great deal of flexibility and resourcefulness on the part of the DTF OIC. Dental units and Echelon II medical units with organic dental assets are equipped with tentage and associated environmental support items in accordance with (IAW) the common table of allowances (CTA) of the particular unit. Tentage, however, is not the best form of shelter for the DTF. Possibilities for shelter of the DTF are shown below in their order of desirability.

a. Established Dental Clinic. Some current TO plans call for the use of established dental clinics. Though the most desirable shelter option, it is the least likely.

b. Semipermanent Construction. Circumstances, particularly in long-term peacekeeping operations, may permit semipermanent DTF construction.

c. Deployable Medical Systems Hospital. The dental assets assigned to the DEPMEDS-equipped hospitals have allocated space; however, the tactical situation may permit occupation of unused space within the hospital by a supporting or collocated DTF. This option is also highly desirable, but not very likely, particularly during periods of high-tempo operations.

d. Buildings of Opportunity. Whenever possible, DTFs should be located in suitable buildings of opportunity. Though this may present a challenge in the DTF layout, buildings of opportunity offer obvious advantages as opposed to using tentage.

e. Tentage. Tentage, thoughtless desirable, is the most likely shelter option available for DTF location, particularly for forward deployed DTFs and during high-tempo operations. Tentage is the option most amenable to camouflage and concealment and offers the most flexibility in site selection.

f. Expedient Shelter. Expedient shelter is the most likely location for the provision of emergency care—

- While on the move between locations and dental equipment is not available.
- During humanitarian assistance and civic action operations.

It maybe as simple as a shaded area or the tailgate of a truck.

3-11. Power Generation and Distribution

Layout of a DTF is largely determined by the availability of electrical power and power-distribution equipment. Dental resources assigned to Echelon II medical units and Echelons III and IV hospitals are incorporated into the power-distribution plan of their unit. Dental units are equipped with power generation and distribution equipment. Tents are easily arranged to satisfy the constraints placed on the DTF by length of power cables; however, an effective power-distribution scheme when using buildings of opportunity can often challenge the ingenuity of the DTF staff. The use of nonorganic power sources is a desirable economy; however, care must be taken when using other power sources, particularly with the maintaining care equipment which has high-amperage (amp) requirements. As always, safety is a paramount concern and alternative power sources should be carefully evaluated before using them. The power-generation equipment repairer (52D) assigned to the dental unit is the best source of advice on this matter.

a. Power-Generation Equipment. The dentistry/prosthetics and general dentistry sections of the medical company (dental service) and the general dentistry section of the medical detachment (dental service) are each equipped with two 15 kilowatt (kw), trailer-mounted, diesel generators. The forward treatment teams of the forward treatment sections each have an organic 5 kw, skid-mounted, diesel generator. These generators provide adequate electrical power for each section. Power requirements for the dental modules in the forward treatment sections will be reduced considerably upon completion of fielding of the lightweight treatment unit and hand-held x-ray, thus allowing assignment of a smaller, lighter generator in the future.

b. Power Distribution. Power distribution and lighting capability, which has long been a serious deficiency in dental units, will be greatly enhanced with the completed fielding of the Distribution Illumination System, Electrical (DISE). The DISE configuration for dental units consists of 60 amp distribution boxes and feeder cables along with an appropriate number of utility receptacles and lighting systems for each section.

c. Power Operations in the Dental Treatment Facilities. Dental units have no dedicated power-generation equipment operators; therefore, operator responsibilities must be assigned to selected personnel as an additional duty. Army regulations require licensure of power-generation equipment operators. In dental units, responsibility for licensure is delegated to the unit's power-generation equipment repairer who, along with the unit's medical equipment repairer, is also a source of technical advice. Technical manuals on the power generation and dental equipment used in the DTF provide mandatory guidelines for operation and operator care and maintenance, and must be readily available. Electrical power usage represents a significant safety hazard in the DTF and must be covered in both the DTF clinical standing operating procedure (CSOP) and the unit's tactical standing operating procedure (TSOP).

3-12. Dental Treatment Facilities Internal Design and Layout

Once a site and type of shelter have been selected for the DTF, actual layout of the facility and internal

design are largely determined by the number of shelters to be used, power-distribution capability and equipment, and staff assigned. Within these constraints, layout and internal design become a matter of preference and DTF staff ingenuity, consistent with operational considerations and unit TSOP. Shown below are suggested layouts and internal designs for DTFs. Illustrations use the organic resources and authorized CTA tentage of the dentistry/prosthetics section, the general dentistry sections, and a forward treatment team of the forward treatment section of the medical company (dental service) and medical detachment (dental service). A suggested power-distribution scheme is shown in each diagram. Refer to Technical Manual (TM) 5-6150-226-13&P for detailed guidance on electrical power-distribution systems, maintenance procedures, and parts.

a. Dentistry/Prosthetics Section, Medical Company (Dental Service). Figure 3-1 illustrates a proposed layout and internal design for the dentistry/prosthetics section of the medical company (dental service). Unique to this section is the prosthetics laboratory. Note in this illustration, as in others, the isolated location of the dental x-ray which is another significant safety hazard in the DTF. X-ray operation is covered later in this chapter and again in Appendix C.

b. General Dentistry Section, Medical Company (Dental Service). Figure 3-2 illustrates a proposed layout and internal design for the general dentistry section of the medical company (dental service).

c. General Dentistry Section, Medical Detachment (Dental Service). Figure 3-3 illustrates a proposed layout and internal design for the general dentistry section of the medical detachment (dental service). It is similar to the layout and design of the medical company (dental service), but smaller in terms of staffing size.

d. Forward Treatment Team, Forward Treatment Section. Figure 3-4 illustrates a proposed layout and internal design for a forward treatment team organic to both the medical company (dental service) and medical detachment (dental service). The illustration shows the soon to be fielded hand-held dental x-ray, not the DES x-ray currently authorized in these teams.

e. Echelon II and Echelons III and IV Hospital Dental Treatment Facilities. Layout and design of the DTFs in hospitals and medical companies are dependent upon the overall plan of the parent unit.

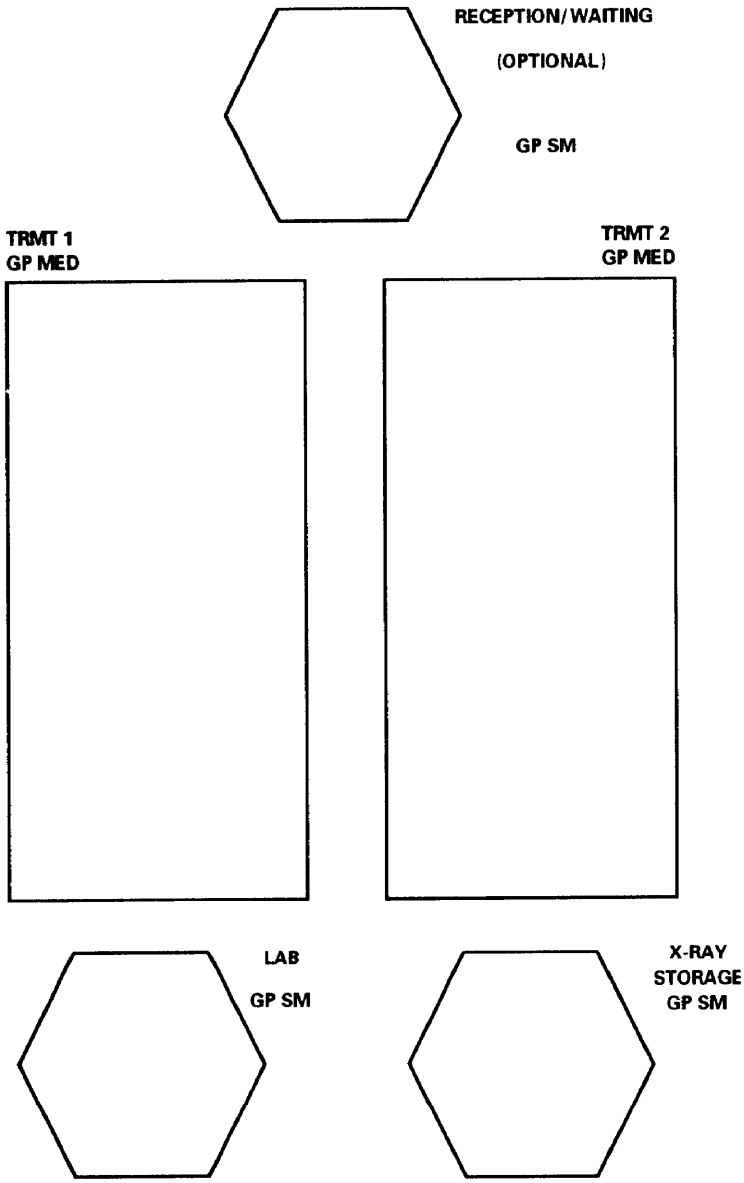


Figure 3-1. Suggested design for dentistry/prosthetics section of the medical company (dental service).

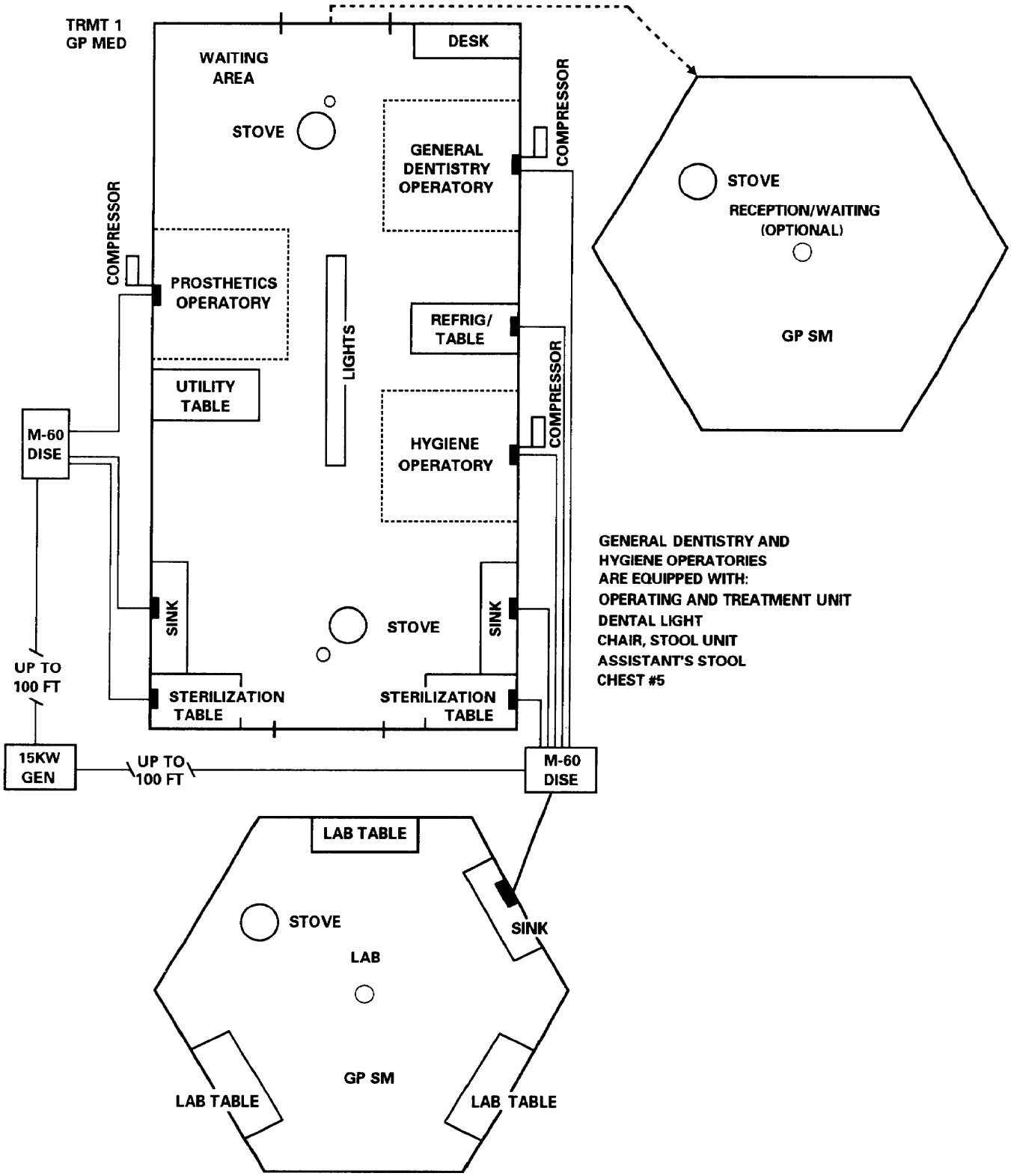


Figure 3-1. Suggested design for dentistry/prosthetics section of the medical company (dental service) (continued).

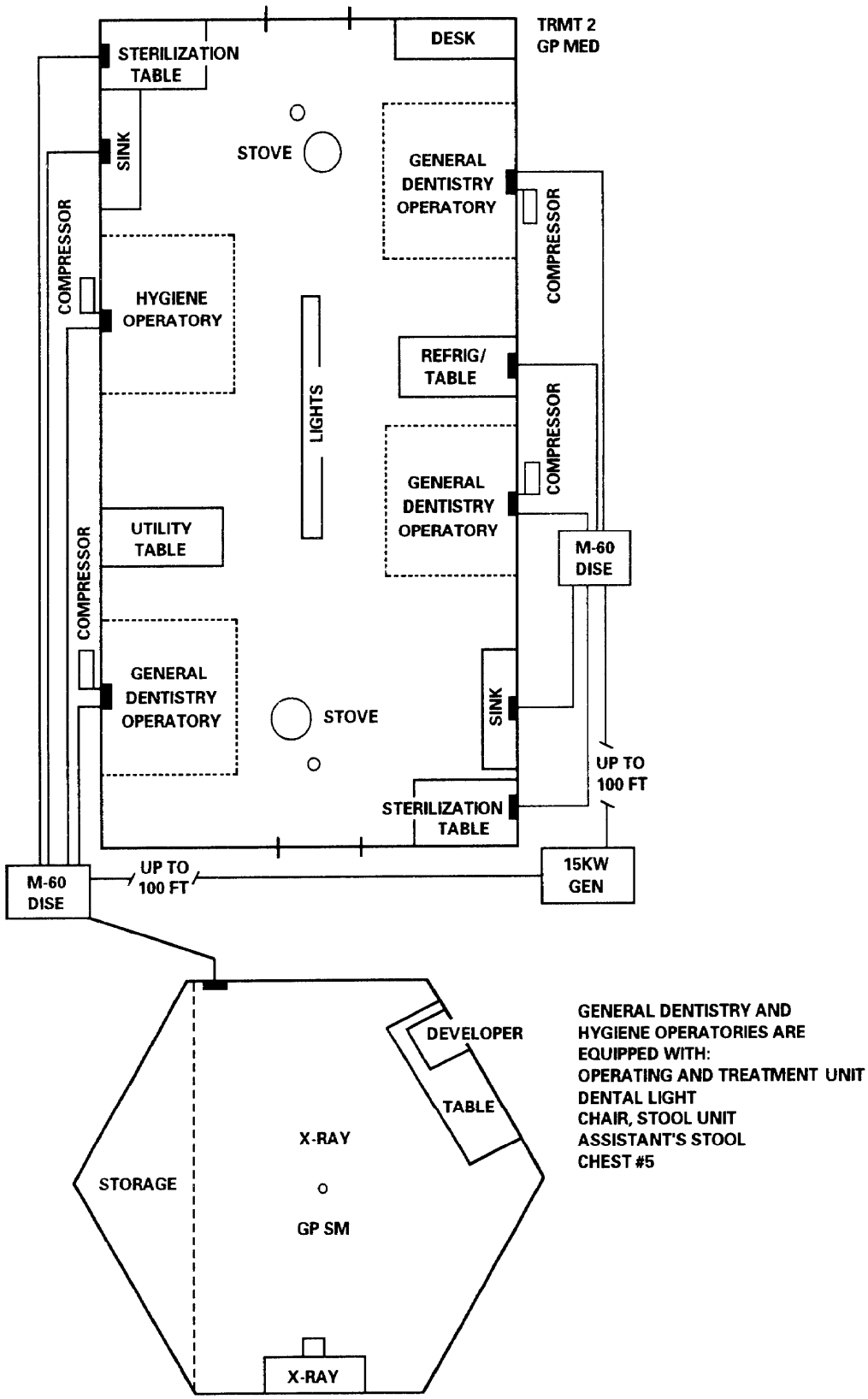


Figure 3-1. Suggested design for dentistry/prosthetics section of the medical company (dental service) (continued).

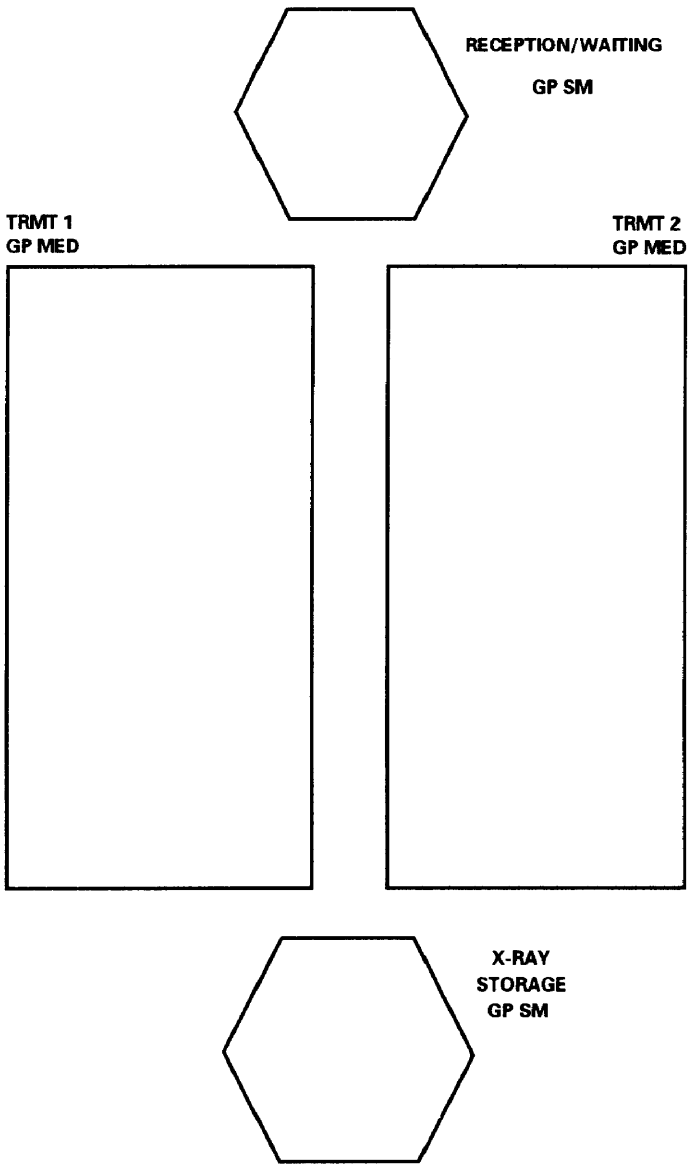


Figure 3-2. Suggested design for general dentistry section of the medical company (dental service).

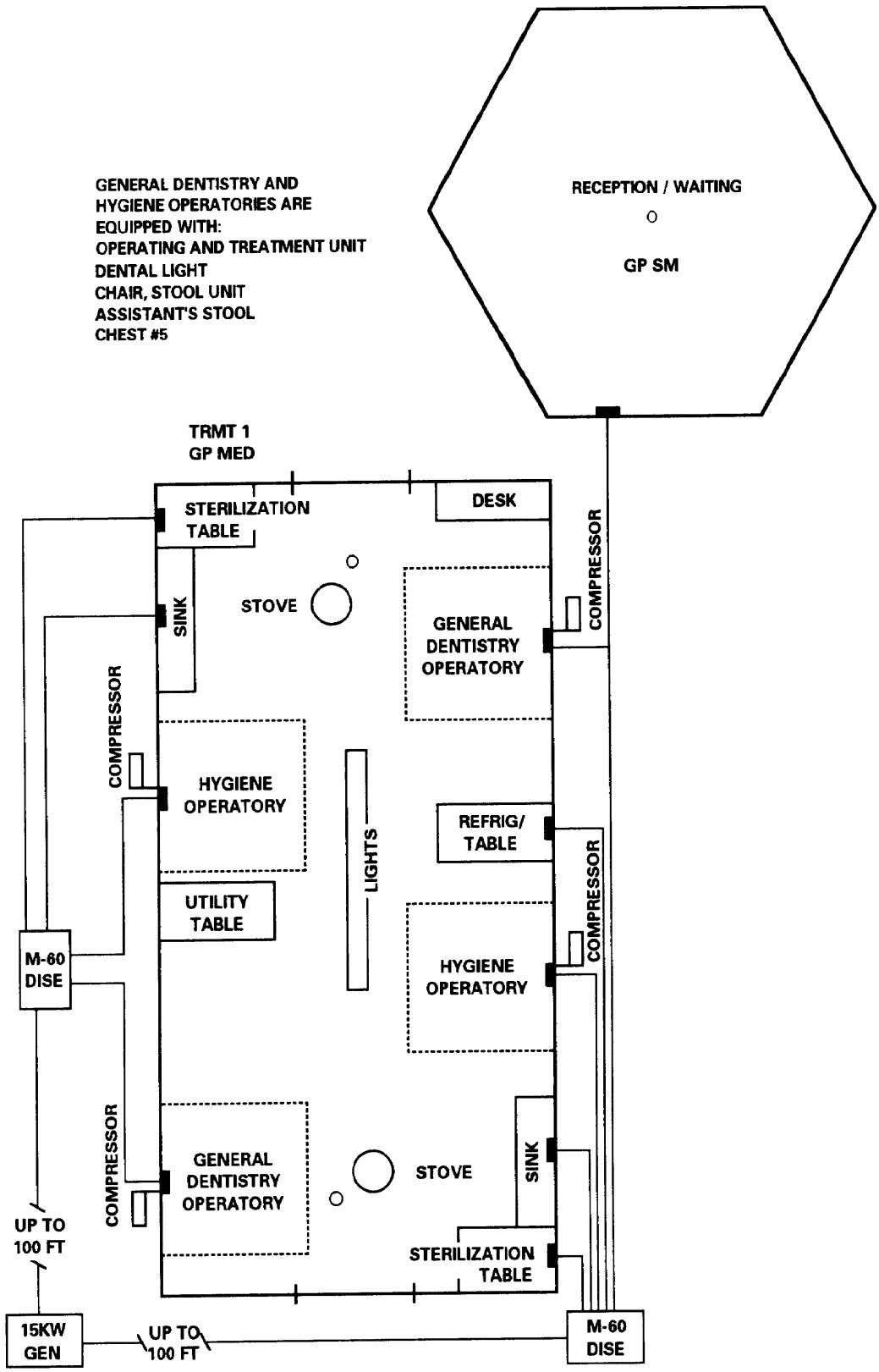


Figure 3-2. Suggested design for general dentistry section of the medical company (dental service) (continued).

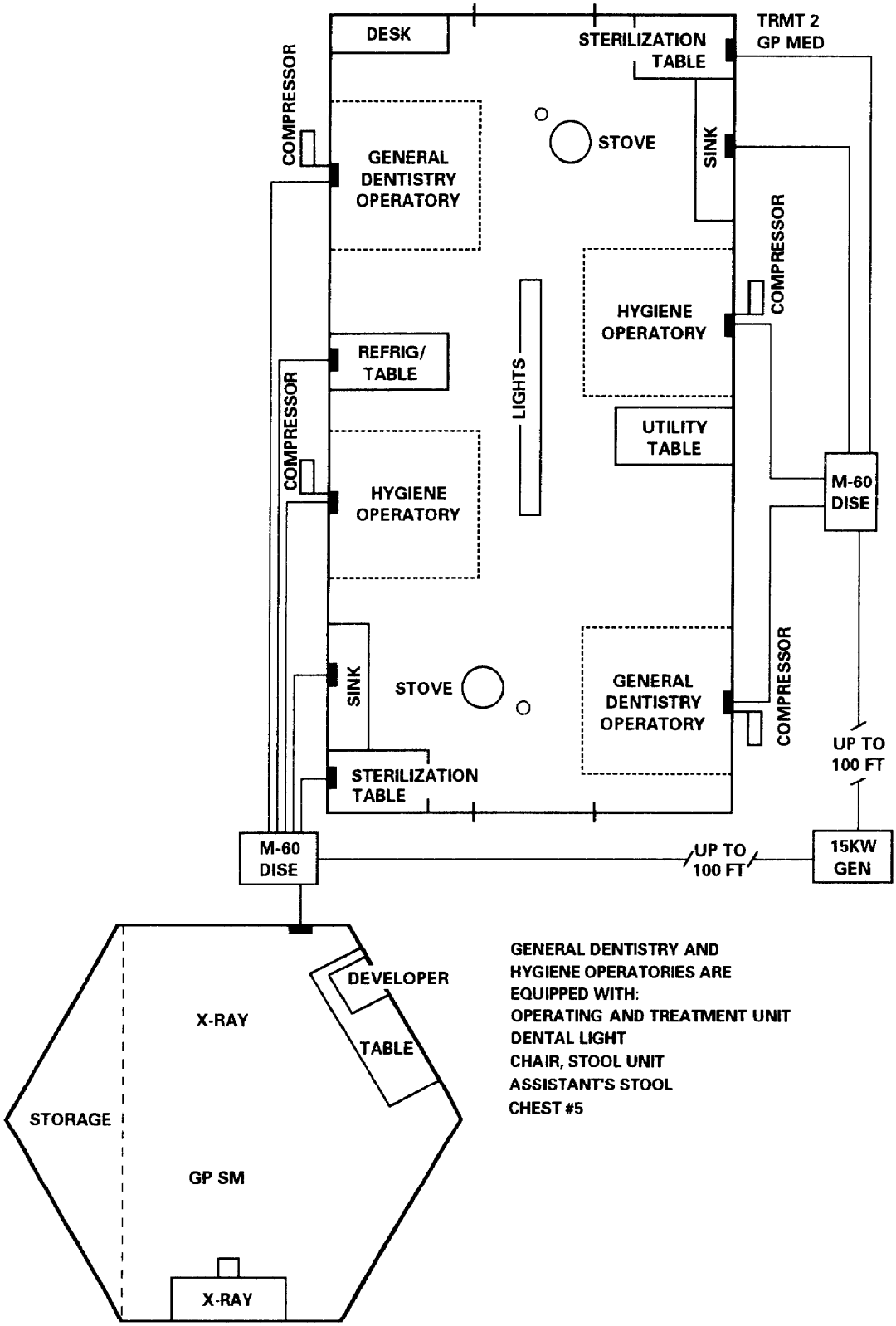


Figure 3-2. Suggested design for general dentistry section of the medical company (dental service) (continued).

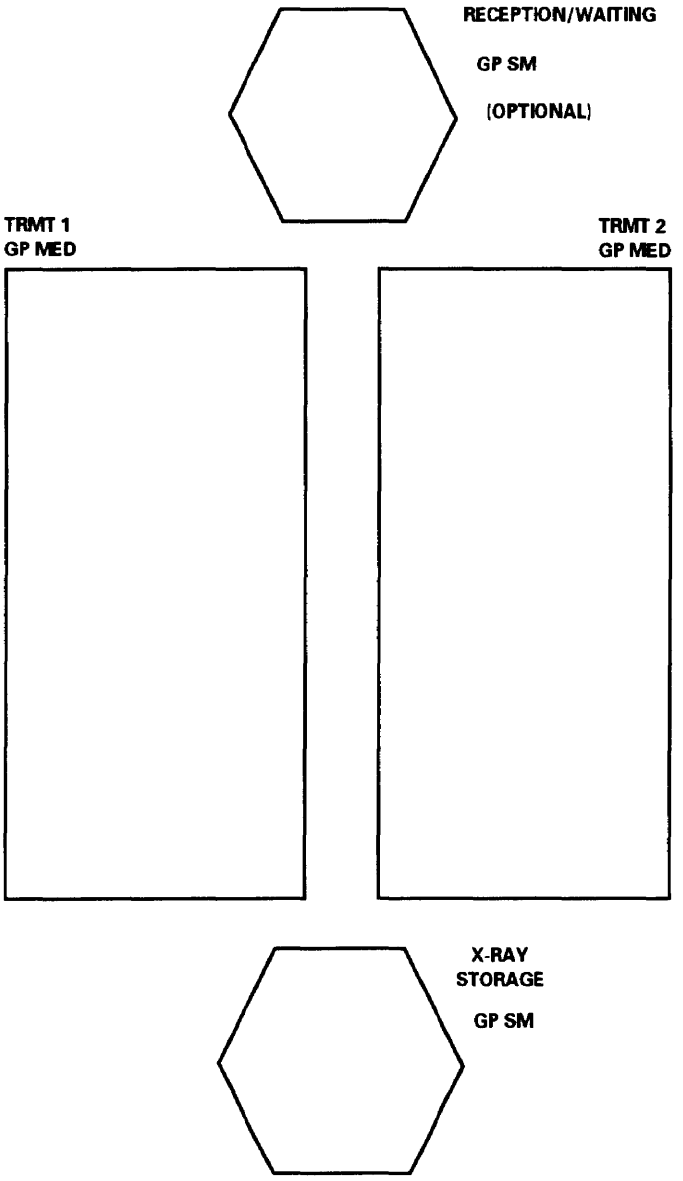


Figure 3-3. Suggested design for general dentistry section of the medical detachment (dental service).

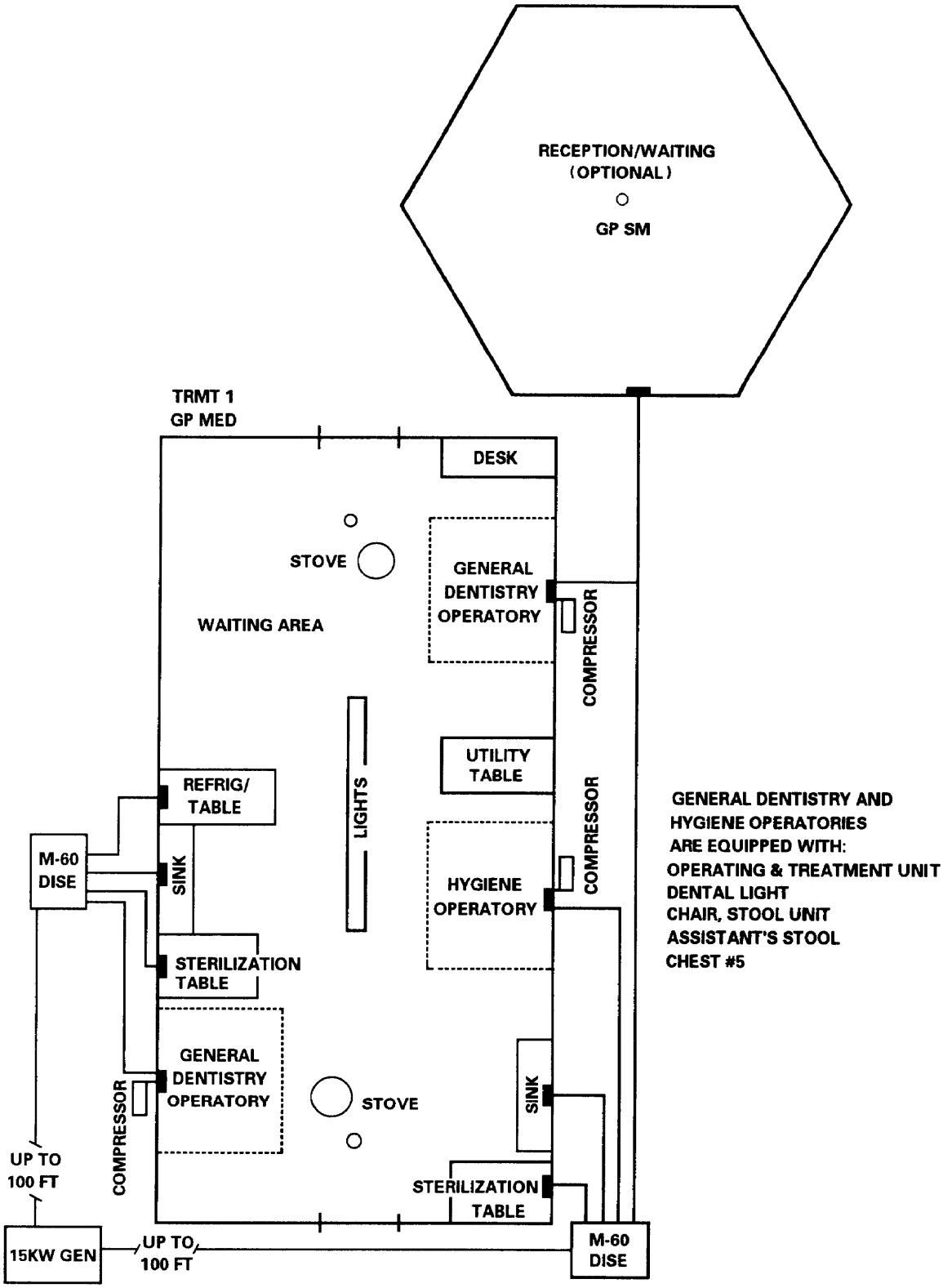


Figure 3-3. Suggested design for general dentistry section of the medical detachment (dental service) (continued).

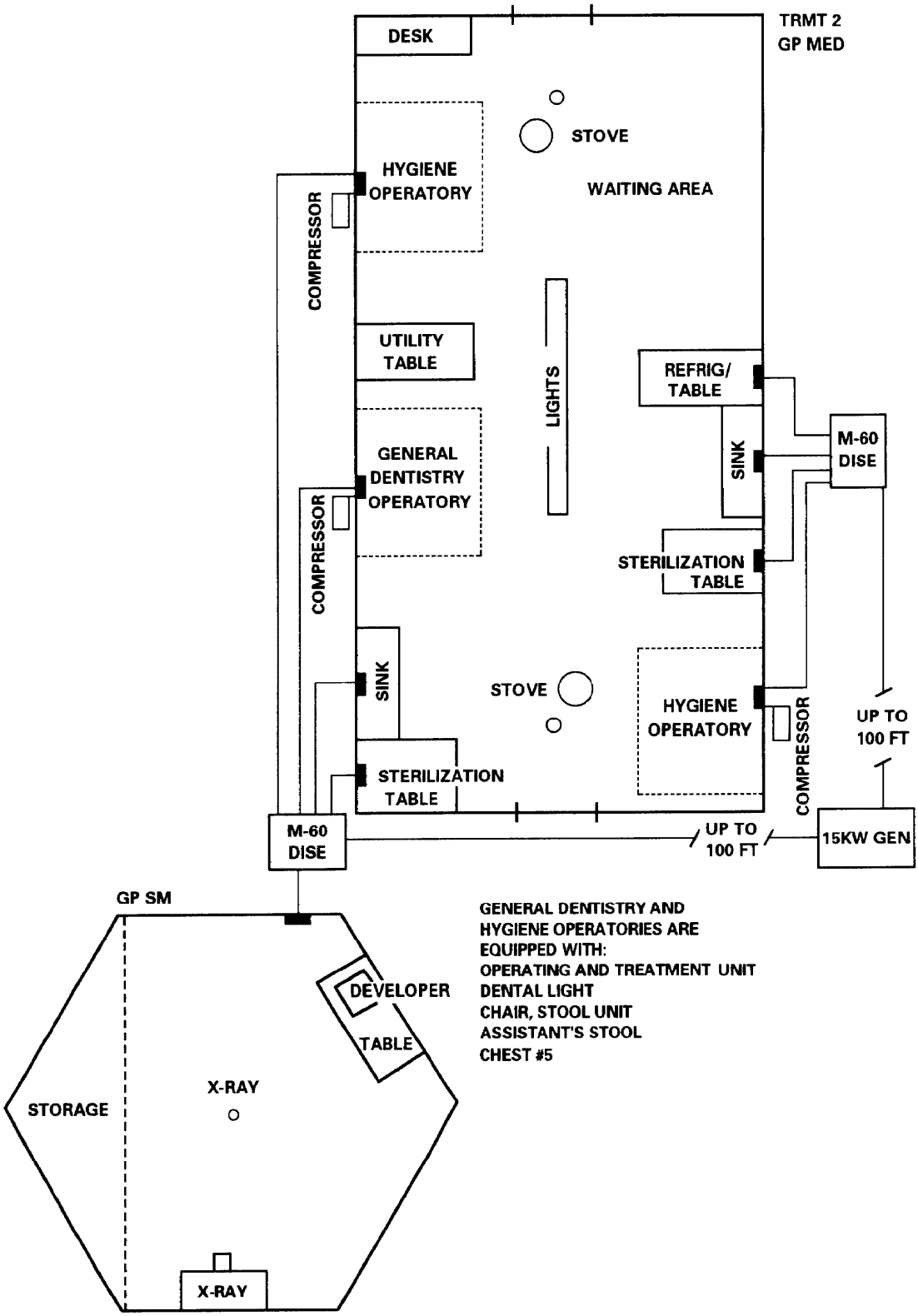


Figure 3-3. Suggested design for general dentistry section of the medical detachment (dental service) (continued).

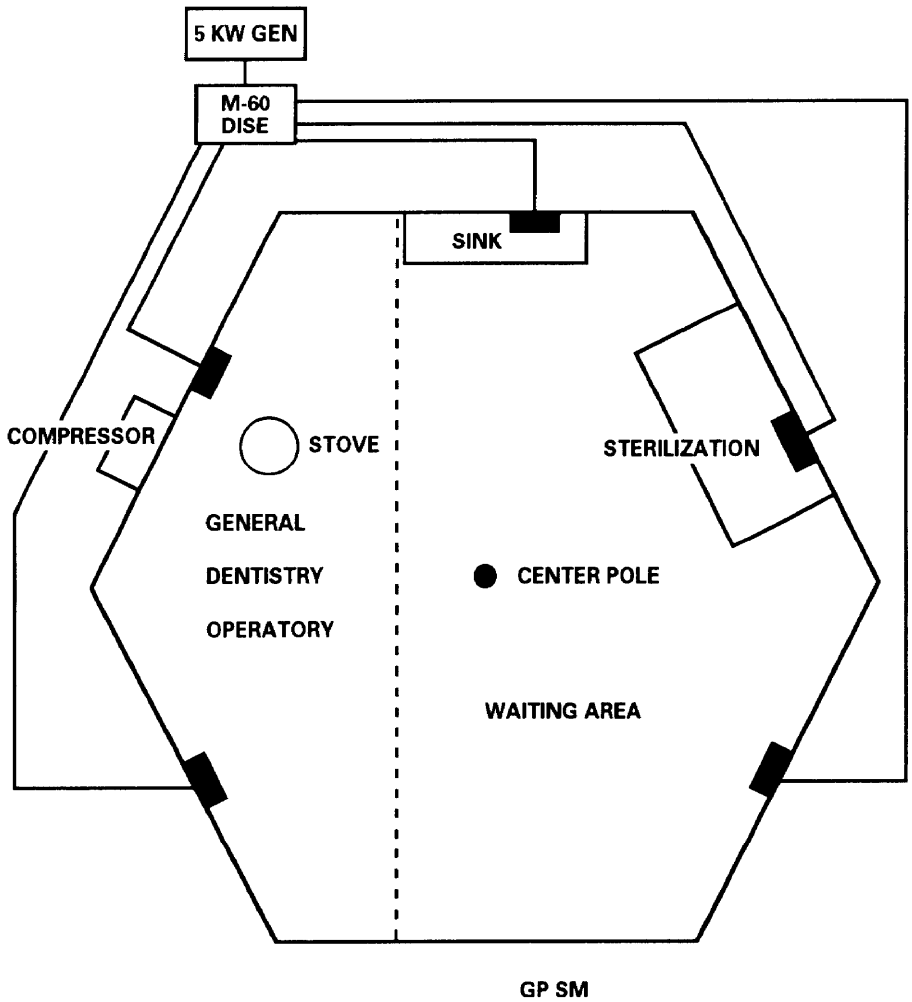


Figure 3-4. Suggested design for forward treatment team for the medical company and medical detachment (dental service).

Section IV. PATIENT CARE OPERATIONS

3-13. General

Once the DTF has been established, patient care operations are accomplished in much the same fashion as they would be in a garrison dental clinic. However, special considerations must be taken into account, based on the environment and tactical situation. The overall objective, as stated earlier in the chapter, is to RTD the soldier as expeditiously as possible while at the same time attending to his dental needs. Efficient patient flow through the DTF will help achieve this objective.

3-14. Clinical Standing Operating Procedure

Each established DTF should develop a CSOP, separate from the unit's TSOP, which establishes policy on such matters as patient flow, responsibilities, equipment operation and maintenance, safety directives, and other pertinent matters. The unit's TSOP

will provide specific guidance on operational matters. Suggested outlines for a CSOP and a TSOP are shown in Appendixes D and E.

3-15. Dental Records and Reports

Maintaining complete and accurate patient treatment records and producing dental program reports are as necessary for quality dental care and resource management in the TO as they are in garrison. Technical Bulletin Medical (TB MED) 250 provides specific guidance on completing dental records. Dental personnel will follow procedures for dental records and reports prescribed by higher headquarters policy. In the absence of established policy unique to the operation, the procedures outlined in this manual will serve as guidance.

a. Dental Treatment Facility Dental Log. A logbook will be maintained for each treatment facility. It will include the name, rank, and unit of the patient and the date and approximate time of the visit. It will also include a brief description of the reason for the visit—whether it was an emergency, sustaining, or maintaining type of care, and whether the condition was for disease and nonbattle injury (DNBI) or battle injury (BI). This log is retained for the clinic record.

b. Dental Treatment Facility Daily Dental Treatment Log. A daily dental treatment log will be maintained by the dental officer to record procedures performed and other pertinent information regarding the patient. This log provides a valuable source of data for statistical reporting.

c. Patient Record. The Treatment Record, Health-Dental (maintained in DA Form 3444-series) will not be deployed with the unit. It will be retained and maintained at the home station IAW AR 40-66 and TB MED 250. For medicolegal reasons, complete patient records in the TO remain essential. Each patient's diagnosis/treatment, regardless of service or country, will be accurately and completely recorded on a Standard Form (SF) 603-A as a temporary record.

(1) To ensure that these temporary records are eventually combined with the permanent dental record, take special care to provide full name, social security number, service, home station, and organization unit. Organization unit should include company, battalion, and major unit—for example, "Company D/2 Battalion, 64th Infantry Division."

(2) A complete description of the diagnosis/treatment will include an indication of the category of care—emergency, sustaining, or maintaining—as described in Chapter 1. As noted in paragraph *3-15a* above, this description will also reflect the nature of the condition and whether DNBI or BI.

(3) If, for logistics reasons, SF603-A is temporarily not available, ensure that all information usually provided on the SF 603-A is included on the alternative paper or form used. There should be a separate SF 603-A, or alternative, for each patient.

(4) All SF 603-A's or alternate forms will be submitted monthly and at the completion of the operation or exercise. If a record must be retained beyond the end of the month for continuity of care, it will be forwarded with the following month's submission.

(5) The SF603-A's (or other temporary patient records) are not to be returned directly to the home installation. They will be transferred to the theater, area, exercise, or task force dental surgeon. The dental surgeon will arrange for transfer to permanent dental records at the home station after data are collected from them.

d. Daily Dental Unit Status Report. A brief summary of the current dental situation will be submitted daily through command and dental technical channels. The report will serve to keep command and control channels up to date on the status of dental operations and problems concerning personnel, equipment, supply, facilities, and other activities. See also Section IV of Chapter 5.

e. Quarterly Dental Activities Report. A summary of dental facility or dental unit activities will be submitted by the 15th of the month following each fiscal quarter of the year. For example, by 15 October each hospital DTF, unit-support (divisional, and so forth) DTF, and each area-support dental unit will submit a report covering the period 1 July through 30 September. If participation in the operation or

exercise ends before the end of a quarter, the final Dental Activities Report will be due 15 days after return to the home installation. The Dental Activities Report will include—

(1) Dates of report period.

(2) Name and location of unit or facility.

• Description of facilities.

• Dental unit/facility movement during report period.

(3) Personnel: Name, rank, and area of concentration (or MOS) of all personnel.

• Identify OIC and noncommissioned officer in charge (NCOIC).

• Date of arrival and departure of all personnel.

• Awards, honors, and achievements.

(4) Dental and organizational equipment. Deficiencies/excesses/problems/recommendations.

(5) Supply and maintenance. Deficiencies/excesses/problems/recommendations.

(6) Name of units supported. Date of beginning and termination of units supported.

(7) Activities and programs. For example—civic action, preventive programs, professional and unit training, and distinguished visitors.

(8) Suggestions for improvement.

The Dental Activities Report is intended to keep higher levels informed of the status of dental resources and activities. It is also an opportunity for dental providers to let problems and solutions be known. After a complete initial report is submitted, subsequent reports need not repeat information that has not changed. Unless changes are indicated on subsequent reports, it will be assumed that data in the previous reports are still valid and serve as a cumulative record of dental service for that unit.

f. Health Record-Dental, Daily Dental Unit Status Report, and Quarterly Dental Activities Report. These reports are submitted through the command and through the next higher dental surgeon to the Army area or theater dental surgeon. The DTF Dental Log is retained at the dental facility and is available for audit if needed. Each command and dental surgeon will extract data and information needed for their immediate resource management and professional policy needs before forwarding to the next higher level. Summarizing statistics for the Daily Dental Activities Report is the only numerical manipulation required at the DTF level. Dental surgeons and dental commanders will extract further information they require from the Health Record-Dental and the Quarterly Dental Activities Report.

g. Patient Administration Specialist. The patient administration specialist (MOS 7lG) assigned to the headquarters section of the medical company (dental service) and medical detachment (dental service) is responsible for dental records and report management including statistical summaries required by the commander.

3-16. Preventive Dentistry

Military preventive dentistry incorporates primary, secondary, and tertiary preventive measures taken to reduce or eliminate oral conditions that decrease a soldier's fitness to perform his mission and cause absence from duty. A combination of measures are described under the umbrella of the Dental Combat Effectiveness Program (DCEP). Before operational deployment, these measures include the Basic Combat Training (BCT)/Advanced Individual Training (AIT) Dental Program (a program to treat Class 3 patients during AIT), the Soldier Readiness Program (described in AR 600-8-101), and preventive dentistry programs described in AR 40-35. During dental service support to military operations, the DCEP measures include—

• Field management of the category of dental care (see paragraph 1-5).

• Commander information on the Dental Fitness Profile of his unit (see AR 40-35 and Appendix A of this manual).

- The Field Oral Hygiene Information Program (see paragraph *3-16a* below).

- The Dental Combat Effectiveness Monitoring Program (see paragraph *3-16d* below).

a. Field Oral Hygiene Information Program. All processing locations for deployment of troops to a TO will provide oral health information specific to the geographic area and conditions of operations. It is vitally important to provide oral health information in the TO at every opportunity. When appropriate, both group and individual counseling should be used. Concepts to be covered include—the importance of oral hygiene to combat fitness; the use of fluoridated toothpaste; alternative methods of hygiene in the absence of garrison-type facilities; and procedures to seek dental services in the TO. Soldiers should also be informed that dental floss, toothbrush, and fluoridated toothpaste are available in the Ration Supplement, Sundries Pack, Type I. These and other oral hygiene aids are also available in the post exchange.

b. Role of the Preventive Dental Specialist. Though trained in expanded dental assistant duties, the primary role of the preventive dental specialist is to support the unit's preventive dentistry mission. The dental hygiene DES contains a limited supply of education aids, toothbrushes, and personal care kits, in addition to materials and supplies to accomplish standard prophylaxis treatment.

c. Prophylaxis Treatment. Instruments and materials for dental prophylaxis treatment are stocked at both the maintaining and sustaining care levels. A sonic prophylaxis handpiece which connects to the dental treatment unit is found in the sustaining-level dental set and the maintaining-level dental hygiene set, in addition to an assortment of scalers and polishing materials.

d. Dental Combat Effectiveness Monitoring Program. The effectiveness of the DCEP depends on all elements described above (paragraph 3-16). The desired outcome is to reduce the degradation of combat effectiveness from dental discomfort and absence from duty station. The outcome measurement of DCEP is the unit or area dental emergency rate. For it to be meaningful, there are three elements to consider in calculating the emergency rate—number of emergencies, number of troops supported, and length of time supported. The emergency rate is normally expressed as—

Dental Emergencies/1000 Troops/Year

If the period covered by the calculation is a month, the emergencies can be multiplied by 12 to get the yearly rate. If the period is "per day," the emergencies can be multiplied by 365 to get the yearly rate. The preferred measure of troop strength is the "average daily troop strength," but if not available, the "end-strength" for the period can be used. The "end-strength" is particularly undesirable when the troop strength is changing dramatically during the report period. When the number of troops being supported is available, the dental emergency rate should be calculated and reported to supported unit commanders, as well as forwarded along with records and reports to the next higher level of dental technical supervision. For the purposes of managing the operational fitness of their troops, unit commanders have a need to know the dental emergency rate and a need for dental surgeon advice on corrective actions indicated. Based on studies of previous military operations by ground forces, the following can be used for reference purposes in discussing emergency rates:

- Units with optimal oral health—75/1000/year.

- Units with adequate oral health—150/1000/year.

- Units with oral health that may degrade operational effectiveness-300/1000/year.

3-17. Infection Control

Infection control is a critical requirement in a field environment; however, basic principles are often compromised in the interest of expediency. The demands for infection control in the field are even greater than in garrison due to undesirable environmental conditions. Expediency and compromise do not justify potential iatrogenic inoculation with a disease such as hepatitis, which can make a soldier combat ineffective for a long period of time. Field sanitation in the DTF area is an important adjunct to infection control and is covered in Chapter 4. Technical Bullet in MED 266 provides specific guidance on infection control.

3-18. Patient and Care Provider Protection

Capability for barrier protection for prevention of cross-contamination is included to varying degrees in each treatment DES. In the DISS, emergency treatment, barrier protection is limited to gloves and masks with no capability for patient protection. The larger sets have much greater capability, to include gloves, masks, eye protection, clinical gowns, and plastic aprons for the care providers. Rubber dam armamentarium eye protection, and towels/napkins are provided for the patient. A variety of disinfection and cold sterilization capability is also included in the larger sets to supplement the steam sterilizer in the DES, support.

3-19. Infectious Waste Management

The accumulation and disposal of waste of all types is a major problem on the battlefield. Proper handling and disposal of waste is required to protect the force and the environment and to fulfill agreements with the host nation (HN). In general terms, the unit generating the waste is responsible for its collection and disposal. Assistance is normally available, however, through the supporting engineer unit, the preventive medicine team, or the local MTF. The types of waste generated by dental treatment teams are general, hazardous, and medical waste.

a. General Waste. General waste may be buried or burned. In either event, the disposal of large amounts of waste should be coordinated through supporting engineer units.

b. Hazardous Waste. An insignificant amount of hazardous waste is generated by dental units in the field environment. Organic solvents and chemicals used in the fabrication of dental appliances fall into this category. Small quantities of hazardous waste should be disposed of in a manner which minimizes the environmental impact. Preventive medicine and engineer personnel can advise the unit on disposal of large quantities of waste.

c. Medical Waste. Medical waste such as blood and blood products and surgical waste will be produced during dental procedures. The medical waste produced in dental modules may be sterilized and disposed of along with general waste. This method may be used by units, regardless of size, until the volume of medical waste becomes unmanageable. Fluid wastes collected through oral evacuation apparatus should be disposed of along with human wastes (such as feces and urine). Contaminated needles and other sharp items require special handling and should be stored in a clearly marked, puncture-proof container with a tight-fitting lid until disposal can be arranged. Larger quantities of medical waste should be gathered in impervious containers, if available. Otherwise, double plastic bags are used. Containers must be clearly marked with the universal biological hazard symbol, or otherwise labeled consistent with the unit TSOP.

d. Methods of Disposal. Disposal of hazardous or infectious waste by burying is the last resort if the tactical situation or HN regulations prevent the incineration of waste. Engineer support is required for design and construction of the disposal site. In all cases involving the handling and disposal of waste, command guidance, TSOPs, and HN regulations must be thoroughly researched.

3-20. X-ray Operations

X-ray operations are an integral part of dental treatment. Capability for dental radiography is found in both the sustaining and maintaining care sets discussed earlier. X-ray operations pose a significant safety hazard and are rigidly regulated. Safety is the greatest consideration in both the operation and location of the x-ray within the DTF. Specific safety guidelines and regulations are covered in Appendix C.

a. Capabilities. Radiographs are an important tool in diagnosis. The standard dental x-ray machine is currently found in both sustaining and maintaining care sets. It has a tube voltage of 70 kv and a tube current of 7 ma. Used with the developer found in the parent DES, x-ray, the unit is capable of producing a full range of intraoral radiographs. In addition, the dental x-ray can also be used to expose medical films, provided developing capability is available.

b. Clinical Operation. Tables of organization and equipment provide a dedicated dental specialist, 91E, for x-ray operation in the dentistry/prosthetics and general dentistry sections of the

medical company (dental service) and the general dentistry section of the medical detachment (dental service). In the dental modules, x-ray is an additional responsibility of the assigned dental specialist. Dental specialists receive training in x-ray techniques during their MOS training; however, instructions which come with the x-ray machine should be readily available and followed accordingly. Within the larger DTFs, the x-ray unit is located in an isolated area of at least a 50-foot radius from the rest of the facility, with the beam aimed away from the DTF and other adjacent populated areas. Use of a patient apron and lead shield is mandatory. Manufacturers' guidelines for care and handling of x-ray developing chemicals and radiographs should be carefully followed and made a matter of the SOP.

Section V. PROSTHODONTICS CARE OPERATIONS

3-21. General

There will be patients in the TO who require prosthodontic treatment. An edentulous patient who has either lost or broken his denture, or a patient who has an unserviceable fixed prosthesis causing pain and discomfort is as much a dental casualty as a patient with a classic toothache. For this reason, varying degrees of capability for both fixed and removable prosthodontic treatment are incorporated into the sustaining and maintaining categories of dental care.

3-22. Location of Prosthodontic Capability

With the exception of the dental officer providing emergency care using only the emergency dental instrument kit, all dental treatment facilities within the TO have some capability for prosthodontic care.

a. Sustaining Care. The dental modules in the following organizations are equipped to provide limited prosthodontic services:

- Division and separate brigade medical companies.
- Special forces groups.
- Area support medical companies.
- Forward treatment teams of the medical detachment (dental service) and the medical company (dental service).

The lightweight dental equipment set organic to the dental module has material for temporary fixed prosthodontic coverage and cementation. Additionally, each module is equipped with an emergency denture repair kit for prosthodontic repairs.

b. Maintaining Care. Capability for maintaining care is found in the medical company (dental service), the medical detachment (dental service) and Echelons III and IV hospital dental services. Prosthodontic capability in these organizations is similar to that in the sustaining care dental module, with the exception of the dentistry/prosthetics section of the medical company (dental service).

3-23. Medical Team (Prosthodontics)

a. The medical team (prosthodontics) is designed to provide additional prosthodontic dental support within the TO by augmenting a medical company (dental service), a medical detachment (dental service), or a hospital dental service. It consists of a prosthodontist, a laboratory NCO, a dental specialist, two laboratory specialists, and a prosthodontic equipment set with the capability to provide a wide range of basic prosthodontic services.

b. The prosthodontic capability of the medical team (prosthodontics) is nearly the same as that of the dentistry/prosthetics section of the medical company (dental service). The medical team (prosthodontics) can be assigned as required to either the medical brigade (CZ), or the medical brigade (COMMZ). However, it must be further attached to

a subordinate dental unit or hospital for almost all of its support. The unit is not capable of operating independently.

3-24. Clinical and Laboratory Operations

Dental treatment facilities which have an organic prosthodontics section or attached medical team (prosthodontics) are capable of providing a wide range of basic prosthodontic services. Prosthodontic capability in other dental units, the dental modules, and the hospital dental service is limited to emergency repairs and temporary coverage.

a. Clinical Operations. Clinical operations in units with an organic prosthodontics section or attached medical team (prosthodontics) cover a wide range of basic fixed and removable prosthodontic services. The prosthodontist, in addition to his assigned general dentistry set which includes a dental chair and stool unit, has access to a supporting prosthodontic set, DES prosthodontics.

(1) Primary procedures which can be accomplished with the material available to the prosthodontist include—

- Metal and porcelain-fused metal crowns.
- Fixed partial dentures.
- Prefabricated and cast post and cores.
- Provisional restorations.
- Fixed prosthodontic repairs.

(2) Primary removable prosthodontic procedures include—

- Conventional and immediate complete dentures.
- Resin and resin/metal removable partial dentures.
- Relining and rebasing.
- A wide range of removable prosthodontic repairs.

b. Laboratory Operations. The prosthetics section of the medical company (dental service) and medical team (prosthodontics) both have organic dental laboratory specialists in direct support of the prosthodontist. Material for accomplishment of supporting laboratory procedures is found in the organic prosthodontic set previously mentioned. The key to the TO dental laboratory concept is the use of the Army Post Office (APO) system for mailing cases back to CONUS area dental laboratories (ADLs) for fabrication. Theater laboratory capability is limited to those procedures which must be performed locally for expediency, or those which are not suitable for mailing.

(1) These procedures involve—

- Wax records and bases.
- Impression procedures and cast fabrication.
- Stain and glazing.
- Immediate transitional resin dentures.
- Die fabrication and trimming.
- Relining/rebasing.
- Repairs.

(2) Use of the CONUS ADLs for resource-intensive laboratory procedures provides a great savings in field equipment/weight and contributes to the overall mobility of the unit. Procedures such as crown and fixed partial denture fabrication and fabrication of metal frameworks for removable partial dentures are not suited to field units and are best accomplished in CONUS ADLs.

CHAPTER 4

DENTAL SERVICE UNIT OPERATIONS

Section I. INTRODUCTION

4-1. General

Units of the medical battalion (dental service) conduct dental service operations within the TO on an area support basis. Chapters 4 and 5 focus on these operations. Dental service support is an integral part of HSS, which in turn is part of CSS. As with HSS and CSS, dental service operations are conducted IAW the Army's current doctrine for AirLand Battle.

4-2. AirLand Battle Doctrine

The Army's AirLand Battle doctrine described in FM 100-5 outlines how Army forces plan and conduct campaigns, major operations, battles, and engagements in conjunction with other services and allied forces. The AMEDD's FM 8-10 is compatible with that doctrine and provides the basis for the dental commander's operational considerations.

a. Operational Continuum. The operational continuum encompasses the variety of conditions and range of threat environments in which the US military traditionally operates. This continuum consists of three general states: peacetime competition, conflict, and war. There may be no precise distinction between where one state ends and another begins. Dental involvement can be expected in all three states. Peacetime competition is generally associated with disaster relief, humanitarian assistance, civic action, and other assistance designed to enhance the stability of the HN. Conflict often involves the employment of contingency forces and the use of irregular forces. War, ranging in intensity, involves the sustained use of armed forces and is the primary focus of this manual. Dental operations in low-intensity conflict (LIC) are covered separately in Chapter 7. Refer to FM 8-42 for additional information on LIC.

b. AirLand Battle Tenets. The four tenets of AirLand Battle apply equally to dental operations. As an element of CSS, dental operations must complement the maneuver commander's plan at all levels. It is imperative, therefore, that dental commanders understand the overall operational plan and remain constantly up to date on the tactical situation.

- *Initiative.* The tactical operation must not be affected by a lapse in dental support when required. Dental units must move rapidly to protect and sustain the maneuver force, thus preserving the initiative of the force.

- *Depth.* The dental service plan should provide service as appropriate throughout the depth and width of the battlefield.

- *Agility.* Dental support should be capable of responding to a rapidly changing tactical situation.

- *Synchronization.* Dental support must complement the HSS plan and the overall tactical plan as part of an overall force unity of effort.

4-3. Medical Threat

Threat analysis is a basic step in plan formulation and subsequent execution. Of particular importance to the dental commander is analysis of the medical threat which is the composite of all ongoing or potential enemy actions and environmental conditions that reduce the performance effectiveness of the soldier. Enemy combat operations that disrupt or threaten the survival of dental units area direct threat to dental operations; however, this threat is not considered part of the medical threat.

a. Elements of the Medical Threat. Specific elements of the medical threat are—

- Naturally occurring infectious diseases.

- Environmental extremes.

- Battle injuries-kinetic energy and fragmentation antipersonnel ordnance/munitions.

- Biological warfare.

- Chemical warfare.
- Directed-energy (DE) devices.
- Blast-effect weapons.
- Combat stress and continuous operations.
- Flame and incendiary weapons.
- Nuclear warfare.

b. Dental Oral Health Threat. The oral health threat results from chronic disease that is endemic in American service members. Acute necrotizing ulcerative gingivitis, acute pericoronitis, and periodontal abscesses are known to exacerbate during periods of fatigue, nutritional deficiencies, psychological stress, and poor oral hygiene. Milder gingival and periodontal disease may also increase in incidence and severity. The chronic nature of dental caries predicts that troops who have deployed initially in an orally fit condition will deteriorate if field oral hygiene is not practiced and if sustaining and maintaining dental care is not provided. Oral and maxillofacial injury from both battle and nonbattle increases in operational settings. All oral infections can advance to life-threatening oropharyngeal fascial space infection or cavernous sinus thrombosis if inappropriately managed.

4-4. Operational Tasks

Operational tasks common to all dental units which must be addressed to ultimately accomplish the dental service mission, regardless of the TO and tactical situation, are—

- Dental service planning.
- Unit movement.
- Provision of dental services.
- Sustainment of unit operations.
- Survival in the battlefield environment.
- Reconstitution and redeployment.

These tasks in themselves do not constitute a mission essential task list (METL), but should be considered in METL development. These general tasks are the basis for the subsequent sections in this chapter.

4-5. Standing Operating Procedure

a. General. An SOP is a standing order which lists procedures that are unique to the organization. An SOP will vary from unit to unit based on mission, guidance from higher headquarters, and other variables. It facilitates and expedites operations by—

- Reducing the number, length, and frequency of other types of orders.
- Simplifying the preparation and transmission of other orders.
- Simplifying training.
- Promoting teamwork and understanding.
- Providing a reference source for newcomers.
- Reducing confusion and errors.

Field Manual 101-5 provides general guidance on SOPs. There is no specified format for SOP preparation due to the wide range of command guidance and variable factors. In some cases, however, the format for SOPs may be prescribed by higher headquarters.

b. Dental Unit Standing Operating Procedures. Dental units should have both a CSOP and a TSOP. Appendix D is a sample format for a CSOP. Appendix E offers a sample TSOP format.

- Clinical standing operating procedure. The need for each DTF within the unit to develop a CSOP is discussed in Chapter 3.

- Tactical standing operating procedure. The TSOP should cover the entire spectrum of collective unit operations with focus on those matters pertaining to unit movement, sustainment, and survival. Technical matters which pertain to a limited number of specialists should not be included. The basic reference for the development of a unit TSOP should be the TSOP of the higher headquarters. The TSOP of the medical company and medical detachment should reflect the guidance contained in the TSOP of the parent medical battalion. The TSOP of the medical battalion should reflect the guidance contained in the TSOP of the parent medical group or medical brigade.

Section II. DENTAL SERVICE PLANNING

4-6. General

Dental service planning is accomplished at all echelons of HSS and dental command. Dental commanders plan for the execution of guidance provided by higher-level staff dental surgeons in the overall HSS plan. Field Manuals 8-42, 8-55, and 101-5 provide specific guidance on the planning process and must be ready references at all echelons of dental command and staff.

4-7. Planning Process

The planning process is dynamic because plans must be constantly revised in response to changing situations. The planning process outlined in FM 8-55 is applicable to dental service planning and subsequent operations.

a. Essential Elements. The essential elements of a plan are—a definite course of action and a method for execution. The plan should be based on facts and valid assumptions and should be simple, flexible, and thoroughly coordinated. A good plan must provide for—

- Mission accomplishment.
- Use of existing resources.
- Necessary organization.
- Personnel and materiel.
- Decentralization.
- Coordination between all echelons.
- Control.

b. Planning Sequence. The following planning sequence is common to any operation (for additional information on HSS planning, refer to FM 8-55):

- Forecast to determine probable requirements.
- Study probable requirements and establish priority of further preparation.
- Study implications of requirements to formulate an assumed mission.
- Analyze mission to determine.
- Establish guidance.
- Prepare planning studies.
- Select course(s) of action.
- Prepare complete plans.
- Conduct rehearsals.

4-8. Types of Plans and Orders

The two types of plans most likely to be prepared by dental units arc the operation plan (OPLAN) and the administrative/logistics plan. Plans, when directed to be executed, become orders. There are two general classes of orders: combat and routine.

a. Combat Orders. Combat orders deal with the tactical situation, to include CSS. Combat orders most likely to be used by dental units are the OPORD including movement orders, administrative/logistics orders, SOPs, warning orders, and

fragmentary orders (FRAGOs). Directives and letters of instruction (LOI) can also fall into the category of combat orders. Characteristics of a good combat order include—

- Clarity.
- Completeness.
- Brevity.
- Recognition of subordinate commander's prerogative.
- Use of the affirmative form.
- Avoidance of qualified directives.
- Authoritative expression.
- Timeliness.

b. Routine Orders. Routine orders cover normal administration such as permanent orders, courts-martial orders, bulletins, circulars, and memorandums. Field Manual 101-5 provides standard formats for all types of orders.

4-9. Staff Dental Surgeon

The roles of the staff dental surgeon and other dental staff officers are covered in Chapter 2. Primary responsibilities include developing the overall dental service plan for the command, monitoring dental unit readiness and capability within the command, and providing guidance for planning and execution to dental units subordinate to the command. Field Manual 8-55 provides extensive information on the dental surgeon's role in the planning process. The first step in the process is preparation of the dental estimate of the situation as part of the HSS estimate. Working with the command surgeon, the next step is preparation of the dental portion of the HSS plan. Finally, medical brigade dental surgeons work with the brigade Assistant Chief of Staff for Security, Plans, and Operations to develop the brigade OPLAN/OPORD, which in turn provides guidance to subordinate units for preparation of their plans and orders.

4-10. Formats

Formats for most plans and orders generally follow the examples provided in FMs 8-55 and 101-5 unless specific guidance on format is directed by higher headquarters. Whatever the case, formats should be standardized within the unit as a matter of SOP consistent with the above. Time and situation may dictate expediency and the need for an improvised format. In all cases, however, the basic principles for plan/order preparation should be applied.

Section III. UNIT MOVEMENTS

4-11. General

The tenets of AirLand Battle doctrine place a premium on the ability of a unit to move on the battlefield. Therefore, dental units must be prepared to move via the entire spectrum of tactical mobility. Dental units deploying from outside the TO require proficiency in all means of strategic conveyance. Unit movements and movement by elements within the unit are complex and require detailed planning and coordination as well as effective training. Procedures for unit movements must be detailed in the unit TSOP and unit movement plans. These procedures are supplemented with a formal movement order for each operation. Movements within the TO can be classified as either tactical or administrative. Only tactical movements are discussed in this chapter.

4-12. Strategic Movements

Strategic mobility may involve movement by air, sea, rail, or administratively overland. Each type of movement requires special skills and training. The unit's field executive officer is generally designated as the unit movement officer and must be school trained and certified along with a number of enlisted assistants. Training should be accomplished prior to deployment. Unit movement personnel supervise the loading of the unit's vehicles and equipment as directed by the loadmaster of the particular conveyance. Strategic movements by dental units are usually a part of a larger effort by the parent units and will be primarily directed by those headquarters. Nevertheless, dental units should prepare individual movement plans and orders consistent with the guidance provided by the higher headquarters.

4-13. Movements Within the Theater

AirLand Battle doctrine envisions a dynamic battlefield with rapidly changing situations. Dental units, particularly those in the corps, must be able to move in response to the tactical situation. Tactical road march is the most likely means of movement, but units must be trained in other methods based on the situations they are likely to encounter. With limited organic transportation assets, detailed and prioritized load plans are essential to quickly establish dental services upon arrival at the planned destination. Dental units and their subordinate elements may well be expected to conduct airmobile operations using sling-load techniques which may require special training and certification. An increased use of tactical airlift is envisioned as anticipated depth of the battlefield increases. Increased reliance on innovative methods of movement is also foreseen in the future, placing more emphasis on lightweight equipment, well-trained and conditioned soldiers, and flexibility on the part of the commander. The wise commander will train and certify his unit in preparation for all movement options.

4-14. Convoy Operations

The most likely conveyance for dental units will be by organic vehicles. Tactical road marches are demanding operations and require skilled drivers and well-maintained vehicles. Tactical road marches may be conducted over all types of terrain, to include unimproved roads and cross-country. Environmental conditions and enemy threat, particularly NBC and air, are vital considerations.

a. Movement Orders. Movement orders are of two basic types: warning orders and movement directives and orders. The warning order serves to alert the unit and provide initial guidance. The movement order or directive details the movement operation and is often built on guidance provided in the overall OPORD. Movement orders vary in detail based on the complexity of the operation and the thoroughness of the movement section of the unit TSOP. Movement orders should reflect the guidance in both the unit movement plans and the TSOP.

b. Coordination. Lines of communication within the TO are carefully controlled and units must receive clearance for convoy operation from the designated authority. If not specified in an overall higher headquarters movement order, commanders will normally arrange convoy clearance and coordinate additional requirements with the movements officer, normally the supply officer (S4) (logistics) or equivalent, of the higher headquarters.

c. Execution. Steps to be taken in the execution of convoy operations are dependent on the tactical situation and the nature of the operation. However, certain steps are common to all convoy operations and should be included in the movements section of the unit TSOP. They are as follows:

- Issue warning order.
- Finalize load plans.
- Coordinate support requirements and convoy clearance.
- Conduct reconnaissance.
- Prepare vehicles and equipment.
- Issue movement order.
- Marshal the convoy.
- Brief key personnel and drivers to include safety briefing and issue of strip maps.
- Dispatch advance/quartering party.
- Cross start point.
- Conduct road march.
- Cross release point.
- Occupy operational area.
- Conduct after-operations maintenance.

Refer to FM 55-30 for more detailed information on convoy operations.

d. Reaction to Enemy Action. The most likely threat to dental unit convoy operations will come from enemy air or NBC operations, though enemy ground operations cannot be discounted. Reaction to all these threats must be reflected in the unit TSOP. Special attention must be paid to procedures for convoy crossing of an NBC-contaminated area. Chapter 9 addresses this matter.

4-15. Unit Movement Plans

Unit movement plans contain up-to-date logistical data summarizing transportation requirements, priorities, and limiting factors incident to the unit's movement. The contents of the plan may vary depending on the mission of the unit and guidance from higher headquarters. As a minimum, the unit movement plan should contain the following:

a. A detailed listing of personal baggage, organizational equipment, and expendable and nonexpendable supplies in shipping configuration.

b. The organization for movement; the SOP for the movement staff, advance parties, quartering parties, and rear detachments.

c. Procedures to be followed at the beginning of the movement, en route, and at the destination.

d. Unit loading plans.

4-16. Procedure for Unit Movement

The unit TSOP should include such unit movement details as the composition of march units; duties of the advance party, rear party, and reconnaissance element; control and communication methods; convoy security; march speed; maintenance, accident, refueling, and field feeding procedures; personnel and equipment load of organic vehicles; conduct of periodic rehearsals; reaction to enemy action; and procedures at the destination. The TSOP must be flexible enough to allow accommodation of the current mission yet thorough enough to allow efficient and predictable action.

4-17. Vehicle Load Plans

Unit loading plans include all individually prepared documents which, taken together, present in detail all instructions for the movement of personnel and the loading of equipment. Load plans are prepared for each of the unit's organic vehicles and should be consistent with the sectional organization of the unit to allow flexibility and maintain sectional integrity. They should also be individually configured to expedite setup of the unit's/section's facilities. Load plans are prepared according to the unit TSOP or the commander's guidance. A separate set of load plans should be maintained for air movements involving hazardous cargo. Load plans are the responsibility of the unit movement officer and should be maintained by the unit, the section, and the individual responsible for each vehicle.

Section IV. PROVISION OF DENTAL SERVICES

4-18. General

The single most important function of dental service units is, of course, to provide dental services. Dental service units orchestrate the employment of organic DTFs within their area of responsibility in a manner which best accomplishes this overall mission. Field dentistry is covered extensively in Chapter 3. This chapter looks at dentistry and associated dental services at an operational level.

4-19. Patient Population

Army medical and dental care is provided to US Army forces deployed in the TO. This care may also be provided to other US service members, allied forces, US and allied civilians, indigenous populations, and EPWs. Priority of treatment is based on the patient's medical/dental condition, availability of resources, negotiated agreements, and applicable laws and conventions. Army Regulation 40-3 provides guidance on eligibility for care; however, specific guidance should be provided by the appropriate staff dental surgeon in the HSS plan or medical brigade OPORD.

a. Geneva Conventions Provision for Prisoners of War. The Geneva Conventions require provision of health care to friend and foe alike without distinction. Therefore, dental units may be charged with the mission of providing emergency dental

treatment to EPWs. Refer to FM 8-10 for additional information.

b. Humanitarian Assistance and Civic Action. Dental civic action operations are generally associated with "nation assistance" and other aspects of LIC which are covered extensively in Chapter 7. However, there will be times in more conventional conflict when dental civic action operations may be called for, particularly as part of overall post-conflict civil affairs (CA) operations. Field Manual 8-42 provides additional information on these subjects.

4-20. Dental Service Related Missions

Though not pure dental service missions, other potential missions of importance have emerged for dental units, all of which are in support of nondental missions.

a. Alternate Wartime Roles. The most important of these adjunctive missions are known as alternate wartime roles, which deal primarily with the augmentation of medical treatment during mass casualty operations. Chapter 8 addresses alternate wartime roles in detail, both individual and unit level.

b. Casualty Identification. Identification of casualty remains is part of the overall mortuary affairs operation undertaken by Quartermaster Corps units. Mortuary affairs operations are not a doctrinal AMEDD function; however, dental personnel and units are uniquely qualified to support such operations when needed in the identification process.

c. Veterinary Support. Military animals, particularly extremely valuable working dogs, are used extensively in the TO. Working dogs are subject to dental injuries, particularly fractured teeth. Dental officers may be called upon to assist the veterinary staff in the treatment of these injuries and restoration of the involved teeth.

Section V. SUSTAINMENT OF DENTAL OPERATIONS

4-21. General

Sustainment of dental operations is a critical aspect of mission accomplishment. The tenets of AirLand Battle place a premium on mobility and flexibility, thus requiring careful attention to logistical concerns to ensure they do not encumber the mission. Sustainment issues generally fall into the category of administration and logistics including—

- Personnel management.
- Health service support.
- Morale and welfare activities.
- Chaplain services.
- Postal services.
- Unit administration.
- All classes of supply, I-X.
- Finance services.
- Legal services.
- Maintenance.

Relative to their size and capability, dental operations consume power, fuel, water, and Class VIII supplies and equipment at a high rate. Careful planning for these and other commodities is a must for sustainment. Chapters 10 and 11 discuss administration and logistics in detail; however, some general considerations for planning purposes are addressed here.

4-22. Sustainment Planning

Sustainment planning must be incorporated in the unit's operations plans and subsequent orders. Sustainment issues are usually included in a service support annex to the basic plan or order, or may be included in paragraph 4, Service Support, of the basic plan. Sustainment issues should also be addressed in the unit's TSOP, and for those items that pertain to DTF operation, in appropriate CSOPs.

4-23. Support Arrangements

Dental units have varying degrees of sustainment self-sufficiency; however, all depend on other units for some of their support.

a. Types. Support arrangements are generally directed in the OPLANs and OPORDs of the higher headquarters. They are generally in the form of attachment specified by the parent unit. Other variations include direct support from the headquarters company of the parent command and control organization, collocation with informal support arrangements, and, less frequently, as part of a consolidation into a composite HSS task force. The last two arrangements are more likely to involve detached elements of the medical company (dental service) and medical detachment (dental service). Another possibility is HN support, generally negotiated through the parent headquarters. Whatever the case, the final support agreement must be carefully negotiated, preferably during reconnaissance and prior to occupation of the site. A continued close relationship with the host unit is a must and should include regularly scheduled meetings and updates. In addition to sustainment issues, survival issues such as collective security must be negotiated with the host unit. Survival issues are discussed in Section VI of this chapter.

b. Types of Supporting Units. Health service support units providing medical or dental treatment are the most desirable units for attachment of dental units or their subordinate elements.

- *Medical company (dental service).* The HHD of the medical battalion (dental service) doctrinally collocates with one of its companies and is dependent on it for support. The medical company (dental service) is also a logical unit of attachment for the medical team (prosthodontics). Advantages here are offset to some degree by the dependency of the medical company (dental service) on other units for some of its support.

- *Echelon II medical company.* Forward treatment teams of the medical company (dental service) and medical detachment (dental service) provide treatment modules in direct support or reconstitution of the Echelon II medical company dental assets. Class VIII supply and resupply requirements are requested through the Echelon II medical company.

- *Hospital.* With the exception of the MASH, TOE hospitals offer the best supporting unit option, both in terms of available support and operational unity of effort. Hospitals, as stated in Chapter 3, are excellent sites for provision of maintaining care on an area support basis.

- *Other health service support units.* Other HSS units without a specific patient treatment mission (such as command and control units like the medical brigade and medical group) offer advantages primarily in the area of communications.

Section VI. SURVIVAL IN THE COMBAT ENVIRONMENT

4-24. General

The common and collective task which provides the common bond for all units in the TO, regardless of their mission and function, is survival in the combat environment. The threat to survival is broad-based and affects a unit both individually and collectively. Failure to counter the threat will most surely result in failure to accomplish the mission. The threat can be divided into general categories: the environment itself, enemy action, and the concomitant stresses generated. All of these are countered to a large degree by application of common tasks as listed in the soldier's manuals and collective unit tasks appropriate for dental units as listed in the unit's mission training plan (MTP).

4-25. Medical Threat

The medical threat includes those threats which evolve from the immediate environment and climatic conditions. The medical threat includes such things as climate, altitude, type of terrain, native plants and animals, population, and the types and prevalence of endemic diseases. Field sanitation and preventive medicine are key factors in controlling medical threats. Field sanitation is a task common to every soldier and unit in the Army.

a. Field Sanitation. The number of soldiers lost to a unit as a result of disease is directly related to the unit's effort and expertise in the area of field sanitation. All field sanitation issues must be addressed, to include: water quality and purification; solid, liquid, and contaminated waste disposal; pest management; preventive medicine measures; and washing facilities. Field sanitation plays an obviously important role in the DTF's infection control program. Field Manuals 21-10 and 21-10-1 provide guidance on field hygiene and sanitation and establishment of field sanitation teams.

b. Preventive Medicine. Preventive medicine is an integral part of HSS and is generally provided by a number of units designed specifically to evaluate and counter the medical threat in the area. As health care providers, dental officers have a part in the preventive medicine effort by constantly evaluating the oral health portion of the medical threat and reporting trends and findings through the chain of command. Likewise, the unit's preventive dentistry program is an important part of the overall preventive medicine program.

c. Stress Control. Both the environment and enemy actions produce stresses on the individual soldier and the collective unit which, if not managed properly, can significantly degrade performance. A wide range of factors influence the production of stress, ranging from the so-called "shell-shock" of intense enemy action to the tedium of anxious waiting. The responsibility of the unit in this area is prevention and treatment in minor cases. More advanced cases require evacuation through medical channels to supporting stress control units. Elements of stress prevention include adequate rest and food, a viable command climate, and a strong sense of unity within the organization. Field Manual 26-2 provides specifics on stress management.

d. Heat and Cold. Temperature extremes and associated factors of humidity and precipitation influence the well-being of the unit and the accomplishment of patient care operations. Management of climatic extremes is both a command and individual responsibility and is directed toward prevention of associated climate-related injuries. Refer to FMs 21-10, 21-10-1, and 21-11 for additional information on the prevention and treatment of heat and cold injuries.

e. Safety. Historically, DNBIs far exceed combat casualties in number and impact on readiness. As always, safety is of paramount concern in the prevention of injury-causing accidents. In an austere field environment with its attendant stresses, safety concerns multiply greatly and must be a matter of the highest command interest. Appendix C provides additional information on safety factors.

f. Personal Conditioning. The rigors of modern combat and the austere environment in which it is undertaken require soldiers who are well-conditioned physically, mentally, and spiritually. Personal conditioning must bean integral part of the unit's training program. Refer to FM 21-20 for information on physical fitness training.

4-26. Threat from Enemy or Others

The threat to dental units covers a broad range of capability including—

- Deliberate attack or collateral damage from attacks upon legitimate targets.
- Direct and indirect ground fires.
- Air attack by fixed- and rotary-wing aircraft and guided missiles.
- Special operations.
- Attacks by illegal combatants (bandits and brigands).

Munitions may include conventional ammunition, incendiary munitions, and NBC. Dental units are an unlikely direct target of enemy action; however, they are still at risk based on their location in relation to more lucrative targets. Dental units are perhaps at greatest risk when moving, particularly along main supply routes (MSRs). Dental personnel are armed only with rifles and pistols intended for self-defense and patient protection. They have limited capability for active defense and must rely on passive defense measures and collective security arrangements.

a. Nuclear, Biological, Chemical Threat. Dental operations in an NBC threat area pose problems for unit survival and patient care operations.

Chapter 9 deals specifically with dental operations in an NBC environment.

b. Conventional Threat. Dental unit reaction to a conventional threat relies primarily on individual and collective passive security measures such as field fortifications and barriers, as well as vigilance and access to intelligence and warning systems.

c. Tactical Standing Operating Procedure. Personnel and collective unit response to enemy action should be addressed in the TSOP and drilled as a matter of course during exercises and actual operations. This does not normally include defense against legitimate capture, but does include evacuation to avoid capture and defense against illegal attack.

This paragraph implements STANAG 2931.

4-27. The Effects of the Laws of Land Warfare on Dental Service Support

The laws of war have many sources. Most noted among these are the Geneva Conventions. Included in these laws are many provisions which pertain to HSS and thus the dental care system. The Geneva Conventions offer protection to units and personnel involved in the provision of dental services, but with certain obligations. Field Manual 27-10 is a good source of information, and FM 8-10 offers a detailed discussion of the effects of the laws of land warfare on HSS. Only the major applications to dental units are discussed in this section.

a. Protection of Dental Patients. Dental patients fall into the category of wounded and sick and are protected under the provisions of the Geneva Conventions. This protection applies to friend and foe alike without distinction, as discussed earlier in this chapter.

b. Protection and Identification of Dental Personnel. The Geneva Conventions provide special protection for medical/dental personnel exclusively engaged in the provision of HSS. This includes both protection from intentional attack and the requirement for special handling in the form of "retained person status" in the event of capture.

c. Protection and Identification of Dental Treatment Facilities. Dental facilities are also protected from intentional attack. Use of the red cross symbol on facilities highlights the status of the facility; however, it is not mandatory. On the other hand, while use of camouflage or other concealment does not in itself result in loss of protected status, it is less likely that the enemy will be aware of the protected status of the unit. The use of camouflage for dental units, therefore, becomes a tactical decision, generally made by the major tactical commander in the area.

4-28. Rear Area Operations

Dental units depend on some form of collective security for protection and response to both enemy attack and natural disaster. Dental units will most likely be collocated within abase cluster, preferably of medical units, and may be charged with a portion of the base cluster defense perimeter if the entire cluster is made up of medical units. In the event dental units are collocated within a nonmedical base cluster, Army policy is that medical personnel will not man the perimeter so as to avoid any possible conflict with the protected status of medical/dental personnel given by the Geneva Conventions. The dental unit headquarters should be linked with the BCOC and should closely integrate its defense plan with the overall defense plan for the base cluster. Where habitual relationships exist, rear area operations can be integrated with those of the supporting unit or the higher headquarters as a matter of SOP. The first issue for coordination with a supporting unit by detached dental elements should be that element's role, if any, in the collective security plan. Given their limited firepower, a more efficient use of dental units in rear area operations may be to augment the MTF in the event of an illegal attack.

Section VII. RECOVERY PHASE OF DENTAL OPERATIONS

4-29. General

Upon mission completion, dental units must be able to rapidly recover and redeploy from the TO, or continue support of the overall mission. There are four major areas to be considered in the recovery phase of operations: recovery, reconstitution, redeployment, and documentation. Traditionally, the recovery phase of operations has not received the same degree of emphasis as other operational tasks; however, the need for rapid reaction and flexibility on the modern battlefield demands otherwise. Upon completion of any operation, there is a natural tendency for letdown and corresponding drop in the sense of urgency perceived by the soldiers of the unit. Successful recovery presents the greatest challenge to the commander's ability and is a major test of the unit's level of discipline. Those tasks associated with recovery must be clearly delineated in the TSOP and trained on a regular basis.

4-30. After-Action Recovery

Recovery is necessary after each phase of operation, not just at mission completion. The dental officer and his assistant conduct recovery operations at the completion of each patient treatment and also upon conclusion of daily business. They are also appropriate upon completion of convoy operations. Postoperation recovery requires a number of tasks appropriate to the particular mission. The following are some of the major areas of consideration.

a. Maintenance. Maintenance must be performed on all items of equipment IAW the appropriate service manuals. Those items which require refueling or replenishment (to include fluid x-ray developers) must be topped off in readiness for the next day's operations or drained in preparation for movement and storage.

b. Supply. Consumable supplies must be restocked in individual sets and requisition for replacement stocks placed IAW the TSOP. Unserviceable or destroyed durable items must be reordered.

c. Personnel. Personnel needs are often overlooked in recovery operations; however, they are of equal importance to other aspects to ensure that the soldier, too, is ready to continue the mission.

d. Unit Defenses. Unit defenses such as barriers and fortifications must be checked, repaired, and upgraded. Defense equipment, such as chemical alarms and detectors and individual masks, must be cleaned, treated, and repaired if necessary. Weapons must be cleaned and serviced.

e. Calibration. Equipment requiring calibration should be checked and submitted for calibration as required.

4-31. Redeployment

Redeployment applies at the tactical, operational, and strategic levels. Redeployment is fairly self-explanatory and does not need further elaboration. It is important to note; however, that redeployment does not signal termination of the cycle of operational tasks. Rather, it signals the start of a new cycle as the commander initiates planning for the next operation.

4-32. Reconstitution

Reconstitution is the basis for the modular concept, which allows manipulation of like modules throughout the battlefield. In the case of dental units, the modules consist of the dentist and dental assistant, along with the lightweight equipment which is found in Echelon II medical units and the forward treatment sections of the medical company (dental service) and medical detachment (dental service). With respect to all dental units, reconstitution will generally consist of cross-leveling or replacing personnel, supplies, and equipment. The medical battalion (dental service) headquarters, when tasked, will usually task one of its subordinates to reconstitute an Echelon II unit with a forward treatment module. There may be occasions for the medical battalion (dental service) to reconstitute one of its subordinate dental units. Of the two basic options for reconstitution—reorganization and regeneration—internal reorganization within the battalion is most likely.

4-33. Documentation

Documentation in the form of an after-action report (AA-R) is an important part of recovery operations, The AAR serves not only as a basis for immediate reconstitution, but also acts as a historical reference and a basis for future planning. An AAR should be accomplished after the termination of each mission and again, in greater detail, upon completion of the overall operation. A much greater emphasis is being placed on the collection of lessons learned; therefore, their documentation in AARs simplifies response to calls from outside agencies. Format for AARs is often specified in the TSOP of higher headquarters, but should be modified to accommodate dental concerns. When no prescribed format is directed by higher headquarters, dental units should develop their own as a matter of SOP. A sample format, patterned after the Joint After-Action Reporting System (JAARS), is provided in Figure 4-1.

SAMPLE FORMAT

AFTER-ACTION REPORT

PART I. EXECUTIVE SUMMARY (Completed by mission commander.)

- Mission Objectives
- General Description
- Dates, Locations, and Major Participants
- Significant Issues
- Limitations

PART II. LESSONS LEARNED (Listed individually.)

- Observation/Issue
- Discussion
- Lessons Learned
- Recommended Action

PART III. ATTACHMENTS

- Chronology of Events (Staff Duty Log, DA Form 1594.)
- OPLAN/OPORD
- Supply Expenditures
- Consolidated Patient Treatment Work Load

Figure 4-1. Sample format for After-Action Report.

CHAPTER 5

COMMAND, CONTROL, AND COMMUNICATIONS

Section I. INTRODUCTION

5-1. General

Chapter 4 discusses six general tasks that must be performed by dental units to accomplish the overall mission of providing dental service. Command and control is yet another task which must be successfully accomplished. It is addressed separately because it is an inherent part of each of the previously discussed tasks, as well as the means of coordinating all of the tasks toward the single objective of mission accomplishment.

5-2. Concept of Command and Control

a. Title 10 of the US Code directs that dental officers be organized into dental units commanded by dental officers. This is true for the dental officers assigned to area support dental units which comprise the largest portion of the dental force in the theater. However, some means must be provided for coordinating the overall dental service effort with those dental assets not assigned directly to dental units, as well as among the dental units themselves. It is important, therefore, to understand the various dental command and technical control chains and the communication systems which support them.

b. Command and control of dental units assigned to a medical battalion is relatively straightforward; however, overall control of dental services in the CZ and within the entire theater is complicated for two reasons. First, approximately one-third of the dental officers within the CZ do not fall under direct dental command and control. Second, dental battalion headquarters detachments are usually late deployers, or may be nondeployers into the theater. It is imperative in either case that those dental resources present in a theater synchronize their work through available channels to provide a coordinated system of dental services. In many cases this will call for flexible and innovative application of normal command and control doctrine. It also requires a great deal of cooperation between all the separate dental elements in the theater. Field Manual 101-5 provides the basis for design of dental command and control.

Section II. COMMAND AND CONTROL

5-3. General

According to FM 101-5, command is the authority a commander lawfully exercises over subordinates by virtue of rank or assignment. Inherent in command is the responsibility for the soldiers' health, welfare, morale, discipline, and training, as well as authority under the Uniform Code of Military Justice (UCMJ) and ethical responsibilities under the laws of land warfare. Command also includes the responsibility and authority for planning, employing, organizing, directing, coordinating, controlling, and maintaining the units' resources in a ready condition. The latter processes can be thought of collectively as control and are often delegated, in part, to members of the staff. In the case of commands with staff dental surgeons and subordinate dental units, delegation of some degree of control over dental operations by the nondental commander to his dental surgeon is the most effective means of providing coordinated dental services.

5-4. Command Relationships

Command responsibility and authority are established through various standard relationships described in FM 101-5, most of which can be applied to dental units. The type of command relationship established for dental units depends on a number of factors, the most important of which is the presence of a dental battalion. When the dental battalion is not present, some modification of standard relationships may be necessary.

a. Organic. An organic unit is an integral part of the unit and is listed in the TOE. For example, the HHD of the medical battalion (dental service) is organic to the battalion.

b. Assigned. An assigned unit is one that has been permanently placed in an organization. The parent organization controls and provides administrative assistance to the assigned unit. For example, the medical company (dental service) is assigned to

the medical battalion (dental service) for command and control.

c. Attached. An attached unit is one that has been temporarily placed in an organization. The attachment is done formally by a written order. This order delineates any limitations on the commander's command and control of the attached unit. It also specifies what type of support the unit will require such as billeting or feeding support. The commander to which the unit is assigned normally retains the responsibility for promotion and for actions taken under the provisions of the UCMJ.

d. Collocated. When two or more units are physically placed at a specifically defined location, but have no formal attachment, they are said to be collocated. There may or may not be any reciprocal support between them.

e. Operational Control (OPCON). Operational control is another temporary measure by which a unit or element is provided to another commander to accomplish a specific mission. This arrangement is normally limited by function, time, or location. The relationship of OPCON does not include administrative and logistics responsibility, discipline, internal organization, and unit training.

5-5. Technical Control

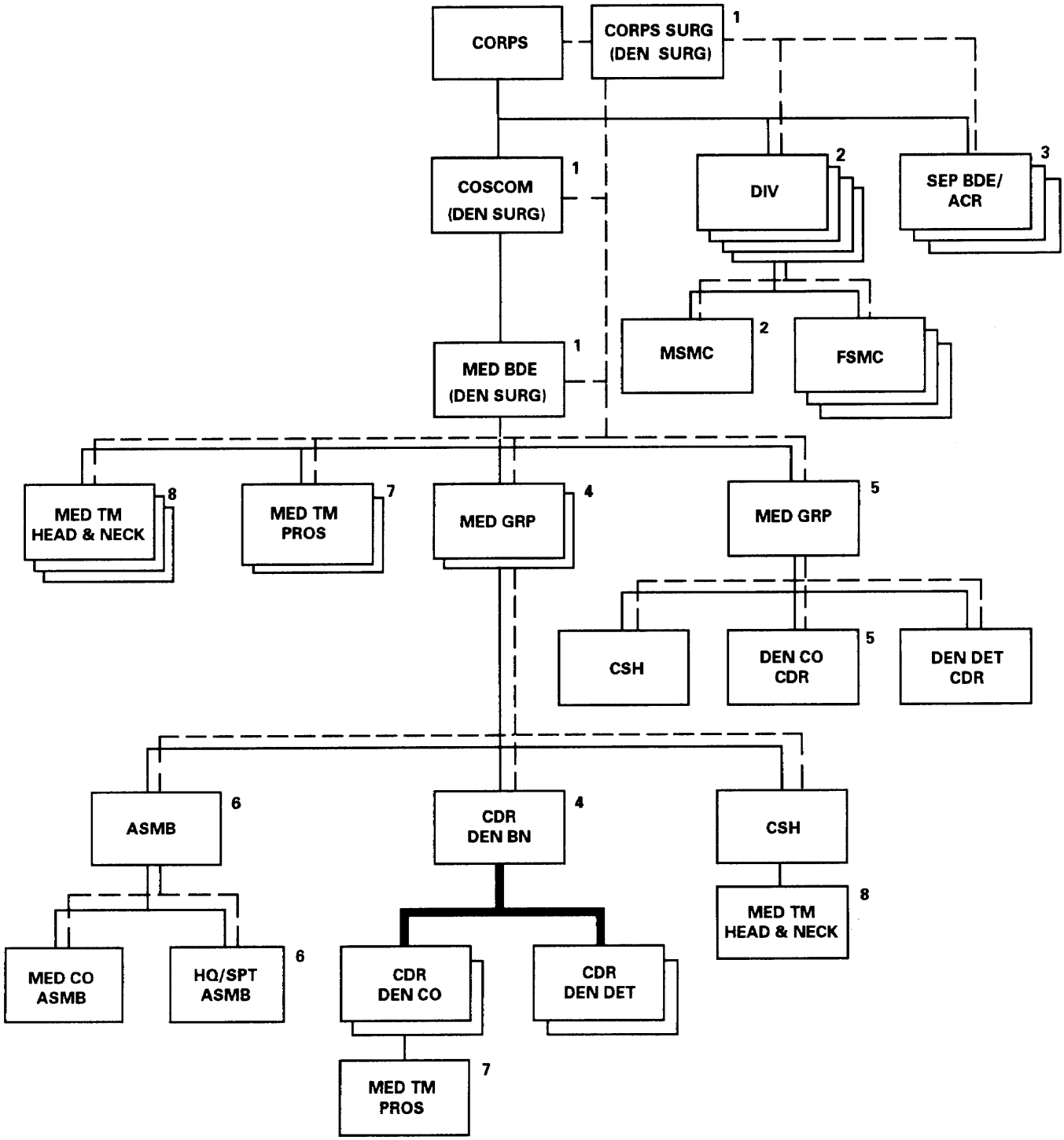
Technical control is an ill-defined term; however, it is the basis for some degree of dental control and subsequent coordination of dental services within the TO. Field Manual 101-5 states that when the technical or professional nature of certain activities requires a special relationship, command responsibility and authority may rest with a commander outside the normal organizational chain of command. With respect to dental operations, technical control applies only to professional matters and aspects of the dental portion of the overall HSS plan. Technical control does not usurp command prerogative with regard to employment and OPCON; however, it can greatly influence conduct of operations at subordinate levels. Technical control guidance is usually in the form of policy and command directive. Dental commanders exercise technical control over their subordinates as part of their command authority. At higher levels, technical control is exercised by the medical brigade dental surgeon whose authority over divisional dental assets is a result of his extended responsibility as the corps dental surgeon. The MEDCOM dental surgeon exercises technical control over all dental assets in the theater and may be delegated OPCON over dental units in the COMMZ by the MEDCOM commander. Chapter 2 discusses the role of the dental surgeons and their technical areas of responsibility.

5-6. Command and Technical Control Chains

Figure 5-1 illustrates the dental command and technical control relationships in a five-divisional notional corps model used in the Total Army Analysis 96 force planning. Though notional and based strictly on bases of allocation for the units depicted, it is a fairly standard laydown. Health service support organization in the COMMZ is far more variable; however, the basic dental command and technical control relationships would be fairly similar. The continuous, solid lines in the figure represent the notional command chain overall, and the wide lines highlight the pure dental portion of the command chain. The broken lines represent the dental technical control chain based on the principles discussed in paragraph 5-5. In many cases the technical control chain crosses over the standard command chain, highlighting the difficult challenge posed to the senior dental surgeon in orchestrating a coordinated dental service program.

5-7. Interim Relationships

Dental resources are a scarce asset within the TO. It is, therefore, essential that they be employed in a manner which maximizes their capabilities. In LIC situations and in an immature theater, dental command and control units (medical battalion [dental service]) may not be deployed to the theater prior to the arrival of the medical companies (dental service), medical detachments (dental service), and medical teams (prosthodontics). An example is illustrated in Figure 5-1 where the medical brigade has three assigned medical groups, but only two medical battalions (dental service), causing one medical group to be without a dental command and control headquarters. The senior dental officer must, therefore, actively pursue support alternative which



LEGEND:

1 DEN SURG ORGANIC TO MED BDE ACTS AS COSCOM AND CORPS STAFF DEN SURG

2 MSMC DEN OFF ACTS AS DIV STAFF DEN OFF

3 FSMC/MED GRP DEN OFF ACTS AS BDE STAFF DEN SURG

4 CDR DEN BN ACTS AS MED GRP STAFF DEN SURG

5 CDR DEN CO ACTS AS GRP STAFF DEN SURG

6 HQ/SPT CO DEN OFF ACTS AS ASMB STAFF DEN SURG

7 MED TMs ARE ASSIGNED TO MED BDE AND FURTHER ATTACHED TO DEN BN

8 ASSIGNED TO MED BDE AND FURTHER ATTACHED TO CSH

_____ COMMAND

_ _ _ TECHNICAL CONTROL / STAFF SUPERVISION

▬▬ DEN COMMAND AND CONTROL

Figure 5-1. Corps dental organization.

most effectively support the delivery of dental care within the command. These different avenues may include organizational structure, delegation of authority, and formal or informal support agreements.

a. Command. In the absence of a dental command and control headquarters, the dental units would be assigned to the senior medical command and control headquarters. If the headquarters does not have a dental surgeon assigned, the commander of the dental company/detachment/team will also serve as the command dental surgeon. For example, prior to the arrival of a medical battalion (dental service) in the corps, the deployed medical company (dental service) would be assigned to a medical group for command and control. The dental company commander would also serve as the medical group dental surgeon. In this scenario, the *commander* of the dental company also serves in the staff position of the dental surgeon. Since he is a *commander,* additional dental companies/detachments/teams deployed may be attached to the medical company (dental service) for OPCON. In this arrangement, as the command dental surgeon he provides technical supervision and advice on the delivery of dental support, and as the commander exerts control over the employment of the dental assets commandwide.

b. Technical Control. If the senior medical headquarters has a dental surgeon assigned, he has *staff* responsibility (to include technical supervision) over the dental assets assigned to the command. However, he does not have a command relationship with these units. To facilitate dental care delivery, this staff officer must ensure that the dental support effort is synchronized and uses the available dental assets efficiently. Because of his position, the dental surgeon has the ability to identify and analyze the dental support needs of the entire command, rather than only a specific dental element's area of operations. To enhance the medical headquarters commander's ability to provide dental services throughout his command, the dental staff surgeon may reach an understanding with the medical headquarters commander to facilitate this process. This agreement may permit the dental surgeon, in the name and authority of the medical headquarters commander, to dictate and coordinate the employment of the dental assets within that command.

5-8. Theater Army Dental Surgeon

The MEDCOM dental surgeon wears the dual hat of theater Army dental surgeon. In this vital role, he is the primary interface with the CONUS base for transfer of dental information. In addition to establishing overall theater dental policy, he is also the primary Army consultant to the unified command surgeon on joint service dental matters. In many instances, a formal MEDCOM is not present in the theater. It is important, however, that there be effective dental representation on the Army surgeon staff, or in any provisional MEDCOM that is formed, regardless of the size of the theater. Again, the senior dental officer (by position) assumes this role.

Section III. COMMUNICATIONS

5-9. General

Effective command and control depends on a reliable system of communications for transfer of information. On the battlefield, the Army relies on some form of electronic transfer as its primary means of communication. Communication equipment organic to HSS units is relatively limited. The HSS system, therefore, depends on direct and general support signal corps services. Health service support commanders must understand the total Army communications system to effectively communicate on the battlefield and with the CONUS base. Field Manual 24-1 provides guidance on basic battlefield communication systems. The HSS commanders must incorporate support available from signal support systems into their overall communication plan.

5-10. Organic Communication Equipment

Current communication capability in dental units is extremely austere, limited in most cases to field telephones. Some relief for dental units and their

sister HSS units will be realized with the completed fielding of single channel ground and airborne radio systems (SINCGARS) radios, mobile subscriber equipment, computers, and data transfer equipment. Discussion in this manual, however, is limited to currently assigned equipment.

a. Radios. The HHD, medical battalion (dental service), and the medical company (dental service) are the only dental units currently equipped with secure frequency-modulated (FM) voice radio communication capability. The medical detachment (dental service) and the medical team (prosthodontics) do not have organic radios. They require communication support from the units to which they are assigned or attached. Therefore, the HHD has voice communication capability with its higher headquarters, the medical company (dental service), or other units equipped with FM radio capability. The reader must keep in mind the limitations imposed by the range of organic FM radios in such situations, which may require alternate means of communication.

b. Field Telephones. All dental units are equipped with TA-312/PT telephones in sufficient numbers to provide at least one for each of their organic elements. Additionally, each headquarters section is equipped with a manual telephone switchboard, SB-22/PT. The field telephone system provides both internal communication and external linkage to supporting units or communication nodes.

5-11. External Communications Support

Dental units are dependent on other units for varying degrees of communication support. This is particularly true for detached dental elements which have no capability other than a single field phone instrument, yet must still maintain contact with their unit headquarters. The two most likely possibilities for communication support are described below.

a. Supporting Medical Unit. The ideal supporting unit for dental units and their elements is a hospital. Army hospitals have radio capability with their parent headquarters and in most cases with other hospitals. Additionally, they are equipped with a switchboard into which the dental element could link its field telephone.

b. Signal Corps Units. Dental units are unlikely to have a direct relationship with signal corps units in the area. However, they will be able to access a network system either through their supporting unit, or through direct wire linkage to the signal node. Landline telephone networks established by signal corps units are of particular benefit to dental units.

5-12. Alternate Communication Means

Alternative means of communication are available in addition to radio nets and voice telephone. Most involve the passage of hard-copy data either handwritten or machine transmitted. The advantage of hard-copy is that it is addressed specifically to the recipient, reducing the possibility of radio operators failing to pass on relayed information. It is also more appropriate for the transfer of voluminous statistical data and reports. Listed below are some possible alternatives to radio and voice telephone communication.

a. Teletype. If adjacent units have teletype capability, dental elements may be able to use that equipment to send the addressed message and rely on the receiver to deliver the message as appropriate.

b. Facsimile. Facsimile (FAX) machines are becoming more common on the battlefield. Dental elements with access to units equipped with FAX machines may be able to establish a support arrangement similar to that for teletype systems described above.

c. Message Center Distribution. Medical brigades and medical groups may have an established message center distribution network which can be used by assigned dental units.

d. Unit Courier. When all else fails, dental units may have to rely on an internal unit courier system, using organic vehicles. A wise economy would be to couple message traffic with scheduled and unscheduled supply distribution runs.

Section IV. COMMUNICATION OF DENTAL INFORMATION

5-13. General

Extremely limited capability for voice communication organic to dental units is offset somewhat by the limited amount of information which needs to be transmitted in real time. Most dental information is adaptable to "roll-up" and hard-copy transmission on a periodic basis. Dental commanders and staff dental surgeons should identify that information which must be transmitted and the appropriate channel for transmission.

5-14. Command and Staff Communications Channels

Command and staff channels area means of passing or communicating orders, instructions, advice, recommendations, and information within a headquarters and from one headquarters to another.

a. Command Channel. This channel is the direct, official link between headquarters and commanders. All orders and instructions to subordinate units pass through this channel. Within the dental units, instructions from the dental commander to his subordinate units or elements pass through command channels. Most command channel information relates to the immediate tactical situation and requires rapid transmission and dissemination.

b. Staff Channel. This channel is the staff-to-staff link between headquarters. Within dental units the staff channel deals primarily with day-to-day administration and support activities.

c. *Technical Channel.* Commanders and staff use this channel to send technical instructions between commands. Unlike the command channel and the staff channel, there is generally no dedicated technical communications channel. This is particularly true for dental technical information. However, the overall dental care system relies heavily on technical channels for dissemination of patient treatment policy and other professional guidance.

5-15. Types of Dental Information

Given limited communication capability, dental commanders and staff dental surgeons must choose carefully which information must be passed and the mode of transmission to use. Described below are various items of information pertinent to dental units and the probable mode of transmission. This description is not absolute and is open to modification to suit a particular situation; however, it does provide a good basis for establishing an effective dental information network.

a. Command Information. Command information is disseminated through command channels to dental units and their subordinate elements, if dispersed. The command channel generally consists of a secure radio net which is used to transfer immediate information concerning the tactical situation. The medical battalion (dental service) commander is part of the command net via his FM radio. Subordinate units not collocated with the medical battalion (dental service) headquarters are dependent on the supporting unit to relay command information transmitted over the radio net. Command information that is less time sensitive is usually transferred by hard copy or field telephone, if appropriate. Examples of command information are orders, directives, NBC reports, and tactical spot reports. Routine dental service operational matters generally are not transmitted over command channels.

b. Routine Information. The majority of dental information constitutes routine business and is passed through staff channels, both within the dental battalion and from the battalion to its higher headquarters. Most data-type information and standard reports passed through staff channels are transmitted either by wire or FAX, if available, or by courier if necessary. Bulk information is generally passed by courier. The primary means of voice transmission is by field telephone and available landline networks. Generally, dental units do not pass routine staff information through radio networks; however, in certain situations some units may require passage of formatted daily status reports by radio.

For convenience, the reports and information required on a regular basis by higher headquarters are generally formatted by SOP. Staff channel information pertinent to dental units covers the full spectrum of administration, support, and clinical operation matters including—

- Personnel actions.
- Supply.
- Work load reporting.
- Clinic status reports.
- Maintenance.

c. *Technical Information.* Dental technical information generally addresses professional matters and patient treatment policy and is issued in the form of written policy or directive "FOR THE COMMANDER." Dental technical information is generally not time sensitive and is passed in hard copy either by wire or distribution. There maybe rare instances, however, when information such as drug or materiel safety alerts requires urgent priority for wire transmission. An important link in the dental technical channel is with the CONUS sustaining base through the office of The Assistant Surgeon General for Dental Services. The MEDCOM dental surgeon or the senior dental surgeon in the theater must establish this link. This is done either through the mail for bulk information, or using strategic communication capability, if accessible, for more time-sensitive information.

5-16. Patient Treatment Data

Capture of patient treatment data is necessary for planning current dental service support and distribution of resources. It also serves as a basis for future research and analysis of dental force structure requirements. Patient treatment information must be recorded, consolidated, and forwarded through the appropriate communication chain for further analysis and consolidation at each level.

a. *Patient Treatment Data Chain.* At the dental battalion level, information from subordinates is received and consolidated for transfer to the medical brigade dental surgeon through normal staff channels. In his role as medical group dental surgeon, the medical battalion (dental service) commander also solicits and consolidates dental patient treatment information from hospitals and area support medical battalions assigned to the group. The medical brigade dental surgeon, in his role as corps dental surgeon, also solicits and consolidates data through the corps surgeon's office from the division dental surgeons. The medical brigade dental surgeon then consolidates dental information into a corps report and forwards it to the MEDCOM (senior dental surgeon if no MEDCOM is present) which develops a theater report for transmission to the CONUS base.

b. *Patient Treatment Data.* Figure 5-2 is a proposed format for a dental status report to be forwarded through the dental information chain, as required. At lower levels, it is forwarded daily by DTFs to their parent unit which will, in turn, consolidate input for forwarding to higher levels. Consolidating and forwarding from the medical brigade may be on a less frequent basis, but should be timely enough to allow senior staff dental surgeons to react to developing trends and situational changes. This status report is a consolidation of key items of information for planning purposes; however, the requirement remains to forward normal work load reports as discussed in Chapter 3.

SAMPLE FORMAT

DAILY DENTAL UNIT STATUS REPORT

UNIT _____ DATE _____
LOCATION _____ (Day/Month/Year)

DESCRIPTION	ARMY	AF	N/M	OTHER
DENTAL EMERGENCIES				
Disease and Nonbattle Injury				
Battle Injury				
Dental Emergency Follow-Up				
NONEMERGENCIES				
POSTMORTEM EXAMINATIONS				
PREVENTIVE DENTISTRY				
Dental Prophylaxis				
Other Preventive Services				

ADMINISTRATION (Remarks)

Personnel _____

_____

Equipment _____

_____

Supplies _____

_____

Facilities _____

_____

Other _____

_____

SIGNATURE BLOCK

Figure 5-2. Daily dental unit status report.

CHAPTER 6

EMPLOYMENT OF THE MEDICAL BATTALION (DENTAL SERVICE)

6-1. General

The medical battalion (dental service) is the major dental service operator in the TO. In the CZ, two-thirds of all dental officers in a generic five-division corps are assigned to area support dental units. The percentage in the COMMZ is even higher where fewer Echelon II medical units with organic dental assets are found.

6-2. Medical Battalion (Dental Service)

The medical battalion (dental service) is found in both the CZ and the COMMZ. In the CZ, the dental battalions are generally subordinate to medical groups of the medical brigade. In the COMMZ, the dental battalions are subordinate to medical brigades, if present, or directly to the MEDCOM. Dental battalions consist of an organic HHD and three to eight assigned or attached area support dental units.

a. Communications Zone. Employment of the dental battalion within the COMMZ is far more variable than in the CZ where the battalion has a direct relationship with the corps to which it is assigned. A major variable is the geographic size of the COMMZ. It may range from a rather well-defined land area to multioceanic areas, as in some Pacific Command (PACOM) scenarios. It is quite possible that elements of the COMMZ dental battalions may be spread over vast distances, or they may be fairly well condensed. Figure 6-1 depicts a notional array of echelons above corps (EAC) dental units deployed in a peninsular theater with an offshore island logistics base. This diagram demonstrates the magnitude of the area which could be covered by a single battalion. In the case of both the CZ and COMMZ, the dental battalion must be collocated with one of its medical companies (dental service) for support. In addition, the HHD, along with its supporting medical company (dental service), is best located close to its parent headquarters to reduce communication requirements and allow active participation in the HSS planning process. As an example, Figure 6-1 demonstrates collocation of the dental battalion HHD with its parent MEDCOM and a subordinate medical company (dental service).

b. Combat Zone. The dispersion of a dental battalion in the CZ is not likely to be as great as in the COMMZ. It will vary, however, depending on the—

- Number of dental battalions assigned to the brigade.
- Density of troop population.
- Geographic area assigned to the corps.

When more than one dental battalion is assigned to the medical brigade, the standard relationship of one medical battalion (dental service) for each medical group is possible. Figure 6-2 is the standard notional representation of the medical battalion (dental service) in the TO. It depicts the probable location of the medical battalion (dental service) and its subordinate units in both the CZ and the COMMZ. Note that Figure 6-2 does not reflect numbers of units assigned, only relative location.

6-3. Medical Company (Dental Service)

The medical company (dental service) is one of the three types of dental units assigned or attached to the medical battalion (dental service) capable of providing dental service. The other two are the medical detachment (dental service) and the medical team (prosthodontics). Of the three area support dental service providers, the medical company (dental service) contains the greatest capability. Principles of employment for the medical company (dental service) are the same for those in the CZ as for those in the COMMZ. It is likely, however, that COMMZ units will be dispersed over a wider area.

a. Configuration. Chapter 3 discusses the basic sections of the medical company and the detachment. The medical company (dental service) consists of a headquarters and support section, a dentistry/prosthetics section, a general dentistry section, and a forward treatment section further divided into six forward treatment teams. The ideal configuration for a medical company (dental service) collocates the headquarters and support section,

dentistry/prosthetics section, and general dentistry section with the forward deployment teams operating independently away from this base over relatively short periods. When the situation requires, the general dentistry section has the necessary clinical capability to operate independently, provided sustainment support is available from the host unit. The general dentistry section and the dentistry/prosthetics section also have the capability to further generate a task-organized forward deployment element with independent power and mobility if the situation requires. The headquarters and support section of the medical company (dental service) provides a relatively high degree of unit self-sufficiency and requires limited external support; however, the capability to project this support to dispersed elements of the unit is not nearly as great. Therefore, elements of the medical company (dental service) located some distance away from the headquarters require considerable support from host units.

b. Employment. The medical company (dental service) offers a variety of employment options ranging from tight collocation in a relatively small area to dispersal over a wide area. In terms of treatment facilities, there can be as few as one 21-chair facility when the unit's clinical capability is massed together, or as many as eight dispersed DTFs, most of them one chair in size, with independent clinical capability. Regardless of the employment option used, two habitual relationships are required or highly recommended. The headquarters and support section should always be collocated with the dentistry/prosthetics section, given the commander's dual role as commander and chief of dental services in that section. This combination of the headquarters and support section and the dentistry/prosthetics section, if not collocated with the medical battalion (dental service) headquarters, should be collocated with a hospital or an HSS command and control organization for communication support.

(1) *Considerations.* The employment of the medical company (dental service) is dependent on a number of factors, the most obvious being the number of troops supported and the range of their dispersion. The basis of allocation is one per 20,000 troops supported for maintaining care; however, the actual number of troops to be supported maybe much greater. It is unlikely that 20,000 troops will be concentrated in one location, particularly in the CZ. In the COMMZ, however, there may be situations where troops are densely concentrated in large numbers such as in marshaling areas and depot facilities. In any event, the number of troops to be supported may often be much greater than 20,000, and the geographic area supported may be quite widespread, based on the dispersion of the supported troops. Another closely related factor is the presence and number of other area support dental units and their type. Additional area support dental units, particularly companies, may allow less dispersion and concentration of assets. In the absence of a dental battalion, the medical company (dental service) and its commander absorb far greater responsibility. Mission, likewise, impacts on deployment. The requirement for provision of emergency or sustaining care only allows greater dilution of assets and more dispersion than if the mission called for provision of the entire spectrum of maintaining care.

(2) *Options.* Employment options for the medical company (dental service) vary greatly from a single unit in support of a large COMMZ troop concentration to one spread over a vast geographic area in support of widely dispersed troops. In the first case, elements of the unit maybe collocated within a single cantonment area. In the latter, DTFs from the medical company (dental service) may be scattered throughout an entire country. The following figures depict a few employment options, all of which can be expanded or compressed to cover the geographic area required. Figure 6-3 illustrates a notional employment of the medical company (dental service) within the CZ. Note that only the forward treatment teams are dispersed from the parent unit. Figure 6-4 illustrates a modified employment of the medical company (dental service) with a complete dispersion of the unit to include task-organized teams from both the dentistry/prosthetics and the general dentistry sections. Figure 6-5 is a more graphic illustration of a dispersed medical company (dental service) within the CZ to include possible relationships with other units. Note that in this illustration a task-organized subteam derived from the dentistry/prosthetics section is involved in a civic action type operation.

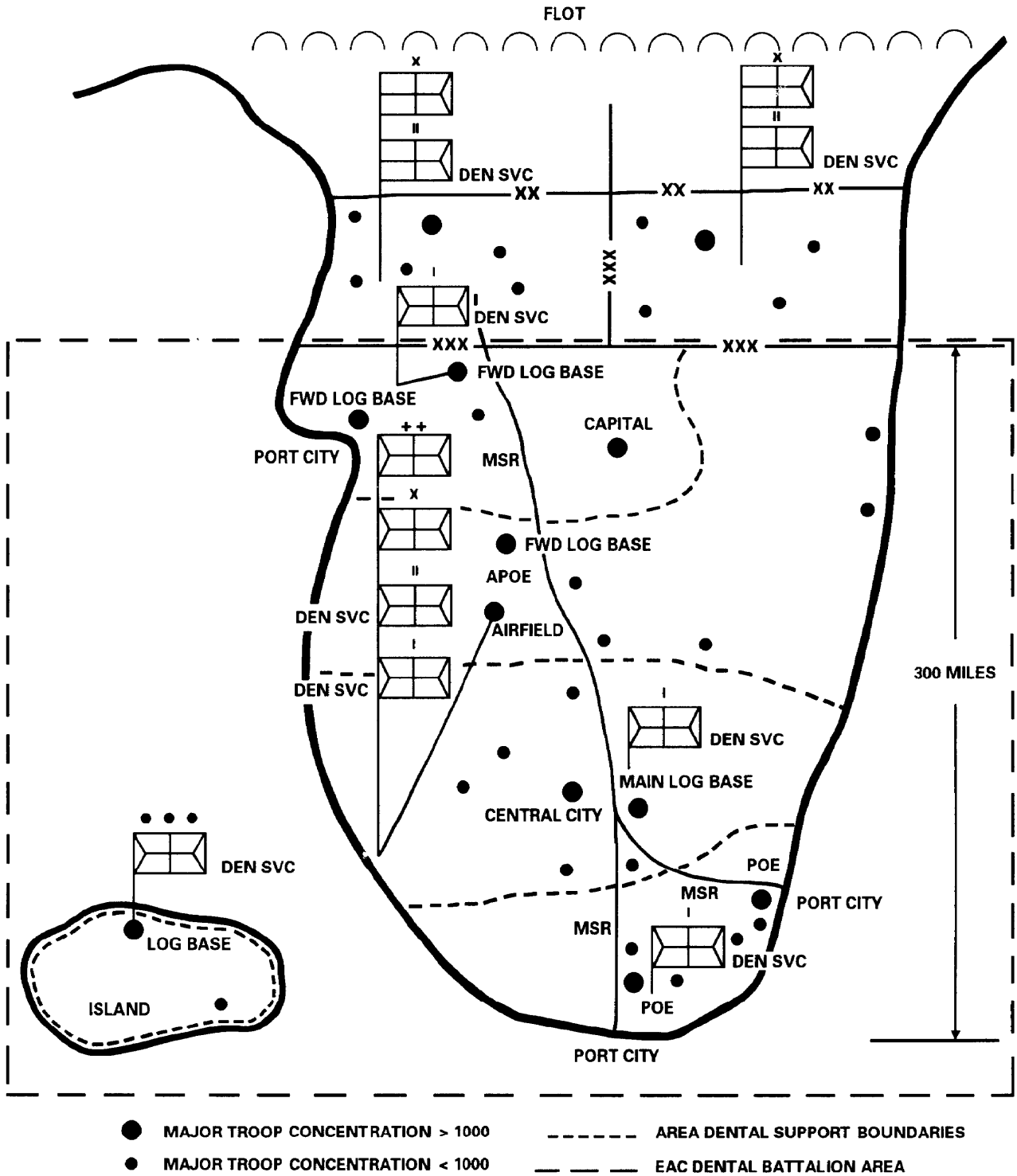


Figure 6-1. Dental battalion HHD.

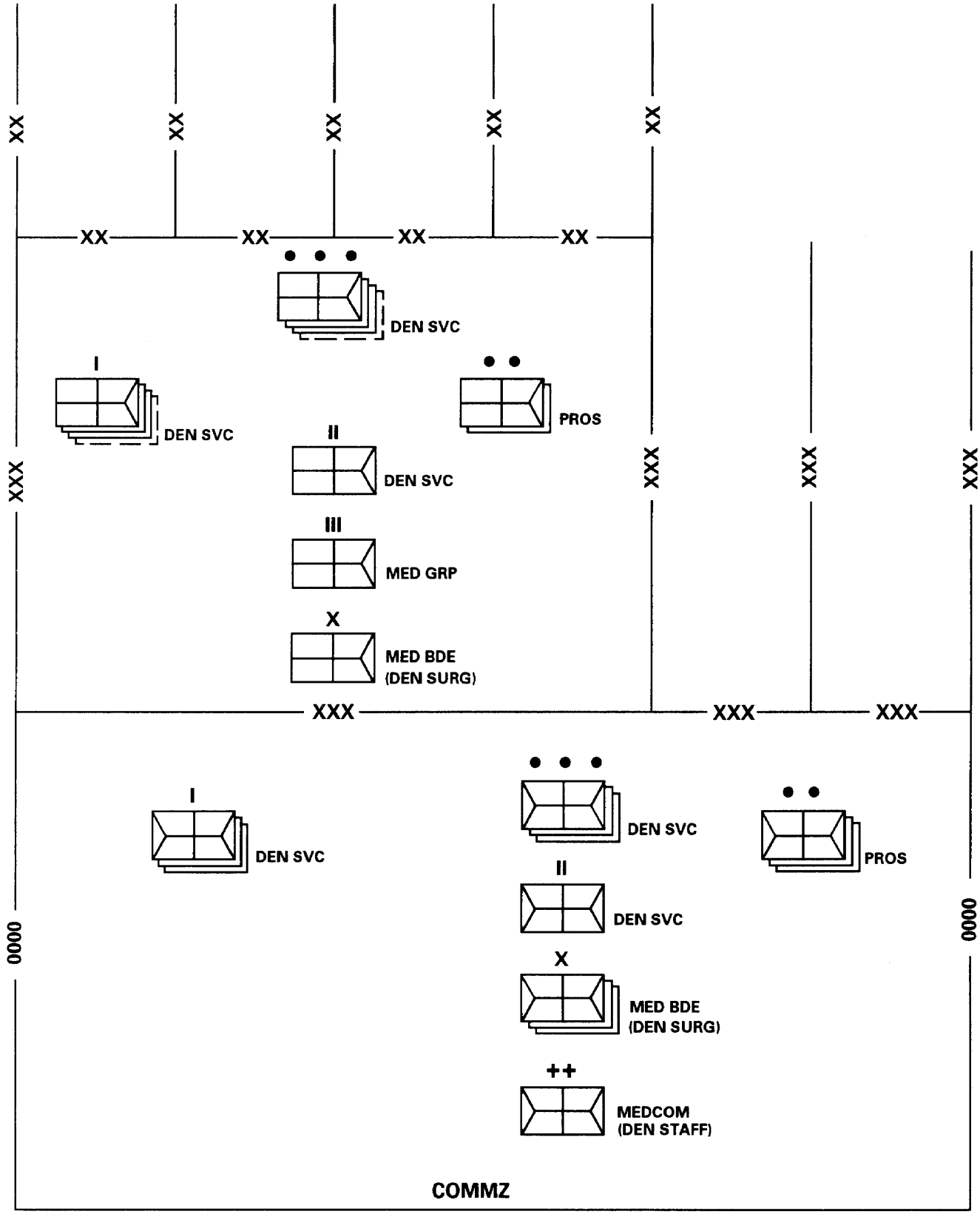
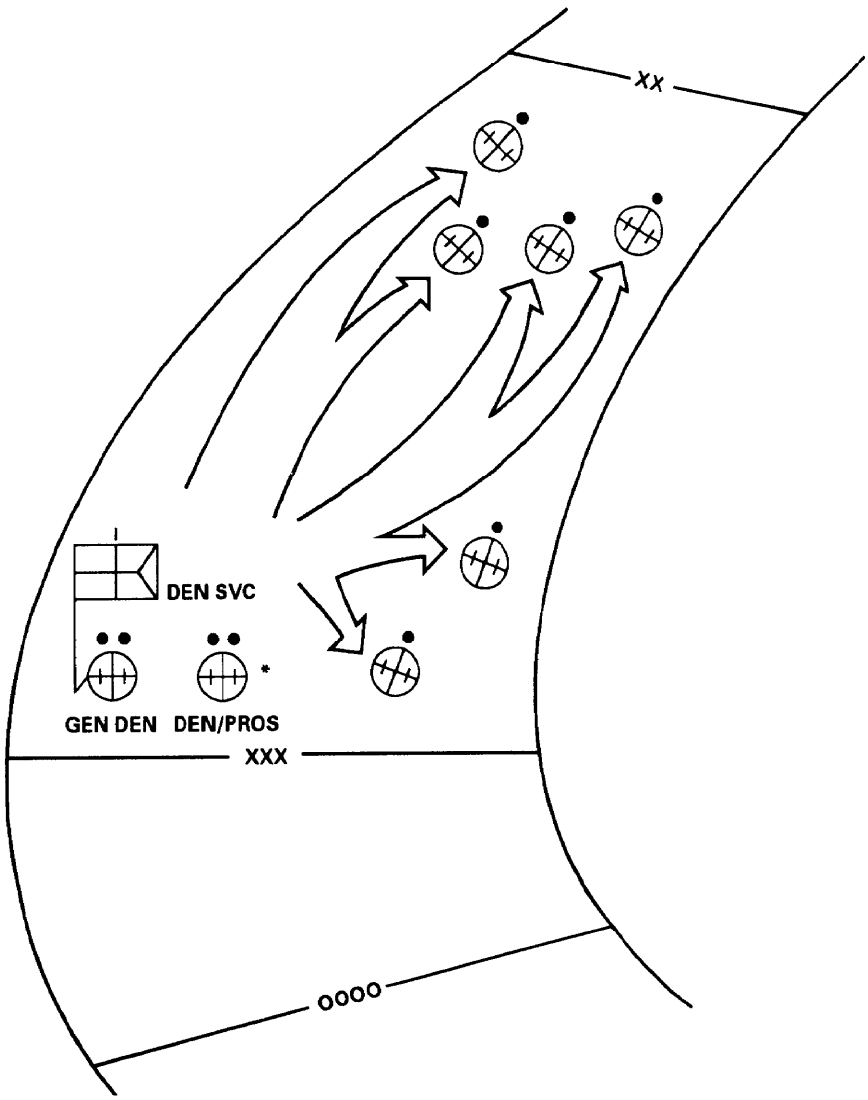
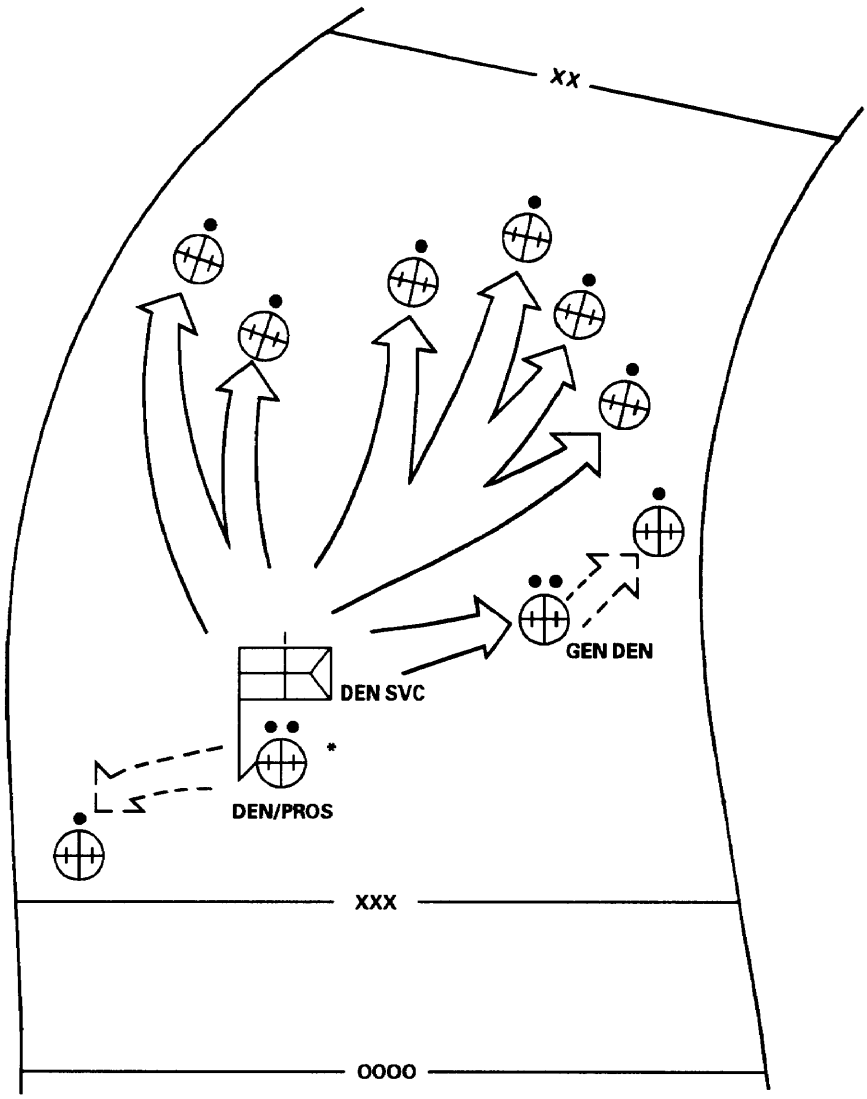


Figure 6-2. Notional employment of medical battalion (dental service).



* Note collocation of company headquarters with the dentistry/prosthetics section.

Figure 6-3. Notional employment of medical company (dental service).



* Note collocation of company headquarters with the Dentistry/Prosthetics Section.

Figure 6-4. Modified employment of medical company (dental service).

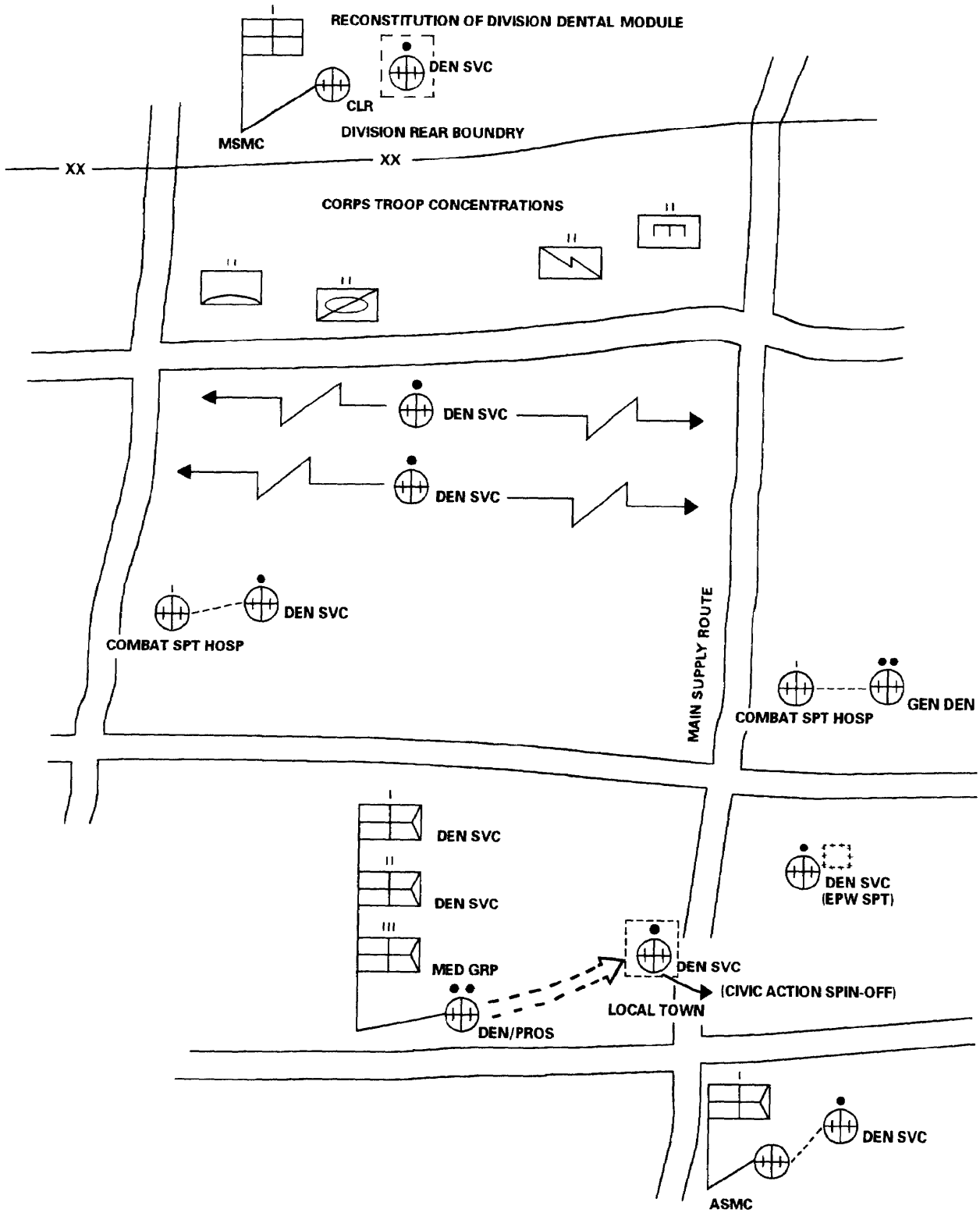


Figure 6-5. Dispersed medical company (dental service).

6-4. Medical Detachment (Dental Service)

a. The medical detachment (dental service) basically mirrors the medical company (dental service) in the type of care it can provide. The major differences are its size (9 chairs versus 21 in the medical company [dental service]) and the absence of the dentistry/prosthetics section with its prosthodontic capability. The basis of allocation for the medical detachment (dental service) is one per 8,000 troops for maintaining care. The support capability of the headquarters and support section is not as great as that of the medical company (dental service); therefore, the medical detachment (dental service) has a greater requirement for outside support. Like the general dentistry section of the medical company (dental service), that of the medical detachment (dental service) can generate a task-organized team.

b. Considerations for employment of the medical detachment (dental service) are essentially the same as those for the medical company (dental service). Its smaller size and corresponding increased deployability make the medical detachment (dental service) ideally suited for inclusion in small HSS task organizations, contingency operations, and as an early deployer in the build-up stages of deployment. The size of the medical detachment (dental service) also makes it ideally suited for direct support of a division. Figure 6-6 illustrates a notional relationship of a medical detachment (dental service) in direct support of a division within the CZ.

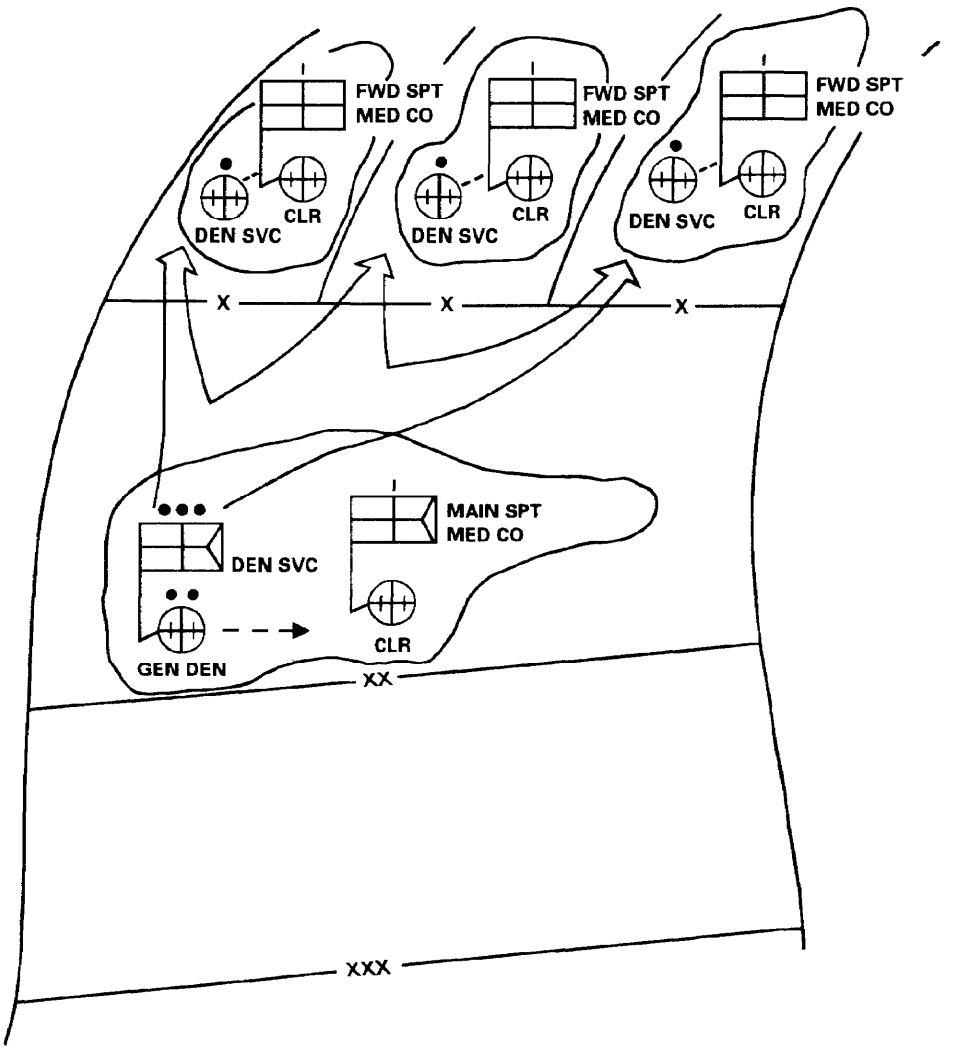


Figure 6-6. Notional employment of medical detachment (dental service).

6-5. Phased Employment of Dental Services

Current capability based on organization and equipment provides dental units, individually and collectively, the flexibility and adaptability to provide dental support at all levels of warfare from the initial stages of the conflict until hostilities cease and US presence is terminated. Medical casualties are principally a function of combat activity and DNBIs; however, dental casualties are principally a function of time. If a high state of dental readiness is assumed for troops prior to deployment, it follows that requirements for dental service support units in the theater will increase as the theater matures. Figure 6-7 illustrates the increase in dental requirements over time based on past experience.

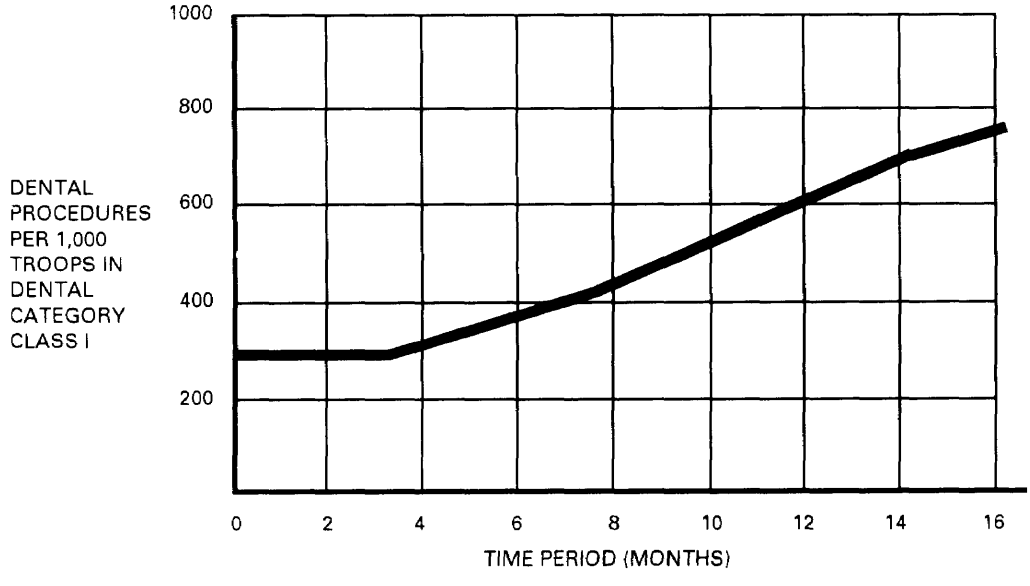


Figure 6-7. Increase in dental requirements over time based on past experience.

6-6. Echelonment of Dental Services

As capability to provide dental services increases, so does the weight and cube of materiel necessary to provide that capability. Emergency dental kits discussed in Chapter 3 are negligible in weight and cube; however, capability is severely limited. Sustaining care DESs are relatively small and readily deployable, but do not provide the full-spectrum of capability found in the much larger maintaining care sets. In the earlier stages of deployment, capability for dental service support must be balanced with the availability of scarce transportation assets and other priorities. Fortunately, the demand for treatment during earlier stages of deployment is relatively light and can be satisfied by fewer dental assets and lower echelons of care. Figure 6-8 illustrates the phased employment of dental support into a TO as a function of time and phase of combat operations. It also suggests the logical provider for that support. As always, planning is the key to successful development of theater dental support. It is incumbent on dental service planners at all levels to coordinate the employment of dental units in the theater throughout the operation and, in particular, during the pre-deployment planning phase.

TIME	PHASE OF COMBAT OPERATIONS	BDE	DIV	CORPS	EAC
D + N	EXPANSION	1,3 ●	1,3 ●	4,5,6 □ *	4,5,6 □ *
	LODGMENT	1,3 ○	1,3 ●	2,4,5 ●	4,5,6 □ *
		1 ○	1 ○	2,4 ●	2,4,5 ●
		1 ○	1 ○	2,3 ○	2 ○
	DEPLOYMENT	1 ○	1 ○	2 ○	
		1 ○	1 ○		
D + 1		1 ○			

LEVELS OF DENTAL SUPPORT

○ EMERGENCY CARE ● SUSTAINING CARE □ MAINTAINING CARE

1 DIVISION DENTAL ASSETS

2 AREA SUPPORT MEDICAL BATTALION DENTAL ASSETS

3 FORWARD TREATMENT TEAM FROM MED DET (DS) OR MED CO (DS)

4 MED DET (DS)

5 MED CO (DS)

6 MED TM (PROS)

* MEDICAL BATTALIONS (DS) ESTABLISHED AT THESE LEVELS

Figure 6-8. Phased employment of dental support as a function of time and phase of combat operations.

CHAPTER 7

DENTAL OPERATIONS IN LOW-INTENSITY CONFLICT

Section I. INTRODUCTION

7-1. General

a. Low-intensity conflict has recently emerged as an area of high probability for future involvement of the US military. Low-intensity conflict encompasses a broad spectrum of activities that require a great deal of flexibility and innovation on the part of those involved. Army Medical Department units will not only provide health care to US Army forces, but will also directly support the LIC mission through participation in humanitarian and civic assistance (HCA) programs and CA efforts.

b. The following is a brief discussion of LIC and dental support for LIC operations; however, a more complete understanding is required in planning and executing LIC operations. For additional information on LIC, refer to FMs 8-42 and 100-20.

7-2. Overview

a. Definition. Low-intensity conflict is a political-military confrontation between contending states or groups below conventional war and above the routine peaceful competition among states. It frequently involves protracted struggles of competing principles and ideologies. Low-intensity conflict ranges from subversion to the use of armed force. It is waged by a combination of means employing political, economic, informational, and military instruments. Low-intensity conflicts are often localized, generally in the Third World, but contain regional and global security implications.

b. Low-Intensity Conflict Imperatives. The LIC imperatives below apply to all operators in the LIC environment including HSS.

- *Political dominance.* Political objectives drive decisions at the strategic level. It is important for the leadership at the tactical level to recognize the importance of political objectives in planning and executing the tactical mission.

- *Unity of effort.* Military leaders must integrate their efforts with other governmental agencies so that all gain mutual advantage.

- *Adaptability.* Planners and executors must be able to change or modify structures or methods to suit the situation at hand.

- *Legitimacy.* This is the willing acceptance of the right of a government to govern, or for a group or agency to make and enforce decisions. It is the perception that authority is genuine and effective and that it uses proper agencies for reasonable purposes.

- *Perseverance.* Military operators must patiently, resolutely, and persistently pursue national goals and objectives for as long as necessary to achieve them.

c. Low-Intensity Conflict Operational Categories. Low-intensity conflict is divided into four broad operational categories:

- *Support for insurgency and counterinsurgency. The* security interests of the US may lie with either an incumbent government or with the insurgents. What primarily distinguishes insurgency from counterinsurgency and from the other categories is the principal objective they are supposed to achieve. The primary objective in insurgency is to overthrow the government. The primary purpose of counterinsurgency is to prevent the overthrow of the government. Both insurgency and counterinsurgency rely on political motivation. Operational techniques in insurgency and counterinsurgency require a multidimensional approach. It is important to be included early in the mission planning. Early planning will maximize the effectiveness of HSS resources. In counterinsurgency, HSS can alleviate major causes of discontent (health and quality of life issues).

- *Combating terrorism.* The aim of combating terrorism is to protect installations, units, and individuals from the threat of terrorism. Combating terrorism is an umbrella term covering antiterrorism (defensive actions for force protection) and counterterrorism (offensive measures against terrorists) actions taken to oppose terrorism throughout the operational continuum. In combating terrorism, programs are designed which provide coordinated action before, during, and after terrorist incidents.

From an operational perspective, combating terrorism is a campaign directed toward a strategic goal of removing the threat.

• *Peacekeeping operations.* Peacekeeping operations are military operations which maintain peace already obtained through diplomatic efforts. A peacekeeping force supervises and implements a negotiated truce. The force operates strictly within the parameters of its terms of reference, doing neither more nor less than its mandate prescribes. A distinguishing feature of these operations is that the force is normally forbidden to use violence to accomplish its mission. In most cases, it can use force only for self-defense.

• *Peacetime contingency operations.* Peacetime contingency operations often take place away from customary support facilities. These operations often require deep penetration and temporary establishment of long lines of communication *(LOC).* These operations may be conducted in a medically demanding or potentially hostile environment. They form a large operational category that includes many diverse actions (ranging from humanitarian assistance to land, sea, or air strikes against centers of hostility). Peacetime contingency operations may require the concentration of violent action, or the exercise of restraint and the selective use of force.

Section II. DENTAL ROLE IN LOW-INTENSITY CONFLICT

7-3. General

Dental support assets have the potential to be important contributors during LIC operations. Their primary role is to support US and allied forces in accomplishing the mission. They can also contribute by participating in dental-related HCA and CA operations. As with other HSS, appropriate use of dental assets is dependent on the mission and closely related to the four general categories of LIC described in paragraph 7-2.

a. Dental Support for Insurgency and Counterinsurgency.

(1) Dental assets are more likely to be employed in support of counterinsurgency operations than in support of insurgency operations. In addition to providing dental care to both US and allied forces, dental assets can be used to conduct HCA programs in concert with the HN.

(2) As with any HCA program, dental operations contribute to the internal development of the HN, thus combating political mobilization by opposing forces. Dental health programs demonstrate to the local community an important measure of accomplishment and progress on the part of the HN. Inexpensive, yet enduring, means of improving the dental health of the population include—

• Assistance in the planning and establishment of local dental health care delivery systems.

• Training programs for HN dental care providers. These training programs should be directed not only toward direct dental care, but also toward a methodology for evaluating the community's oral health and developing programs for improving the level of oral health.

• Community oral health education programs.

(3) Dental care provided as part of an HCA operation is a highly effective, yet inexpensive means of producing an immediate impact on a target population. Unlike many medical ailments which may take days or months to resolve, permanent relief from the pain caused by a toothache (a common malady in Third World countries) can be obtained very quickly. Simple dental treatment offers the potential for immediate payback in the form of good will and cooperation from the affected population. Dental HCA activities need not be limited to oral surgical procedures and extractions. The organic assets and mobility of dental units allow the provision of more sophisticated and enduring care such as restorations and simple prosthodontics, with minimal increase in resource expenditure. In any case, care should be

exercised in electing those procedures which can be completed with minimal probability of postoperative complication. Regardless of the level of treatment provided, oral health education should bean integral part of the overall program.

(4) Dental units are capable of conducting HCA operations independently or in concert with other health care assets. Dental personnel can also augment nonmedical units, such as engineers and CA units, and are particularly effective in augmenting the HCA operations of Special Forces units. Once again, planning is important to the success of dental HCA operations. Dental operations in LIC require a high degree of flexibility and initiative on the part of the dental planners. Care must be taken to balance the operational requirements of taking care of US soldiers with the favorable impact dental HCA operations can have on the overall LIC effort. The senior dental officer present must be prepared to advise the command surgeon and the operational commander as to the best possible use of available dental assets. The overriding consideration in the planning of dental HCA operations is to ensure that operations are conducted in concert with the HN and are consistent with the HN's dental health and security objectives.

b. Dental Role in Combating Terrorism.

(1) Humanitarian and civic assistance operations typically attract large numbers of people, presenting lucrative targets for terrorist attacks. Dental personnel must be made aware of the terrorist threat and take preventive measures. Planning must include analysis of possible terrorist threat, available intelligence for the area of operations, and provision of adequate nonmedical security forces.

(2) Dental personnel need to be prepared to assist in any mass casualty situation which may be generated as a result of a terrorist incident.

(3) Appropriate response to a terrorist act should be a matter of SOP for all dental personnel and should be well rehearsed in unit training.

c. Dental Support for Peacekeeping Operations.

(1) The primary function of dental support in peacekeeping operations is to maintain the dental health of the peacekeeping force. Dental care is provided to all members of the peacekeeping contingent. Categories of care should, as a minimum, include emergency and sustaining care. Provision of dental treatment in the maintaining category of care is desirable as resources and the situation permit.

(2) Conduct of dental or combined medical and dental HCA operations must be consistent with the peacekeeping charter and approved by the command authority. Austere medical resources require maximum use of dental assets in preparing for mass casualty situations.

d. Dental Support for Peacetime Contingency Operations.

(1) Most peacetime contingency operations such as raids, peacemaking operations, demonstrations, and other combat-related operations call for traditional CSS-oriented dental support.

(2) In contingency operations such as disaster relief, dental personnel assets may be employed in direct support of the affected population. In these roles, dental personnel must be prepared to provide emergency dental services and to augment the MTF in mass casualty situations.

7-4. Employment of Dental Personnel

a. Availability and employment of dental care capability is closely related to the particular category of LIC operation and dependent on the specific mission. Dental care capability is generally included in the force structure to support US troops. However, when the opportunity arises for participation in HCA programs, or when dental resources are dedicated to HCA operations, employment is largely a matter of innovation and creativity on the part of the commanders and their dental planners. Dental care resources may be employed separately in dedicated dental HCA operations. Dental care resources may be as limited as the organic dental officer and assistant in the division medical company, or the organic medics on a Special Forces "A" team, or as many as an entire medical company (dental services).

b. Dental personnel are capable of contributing to a broad spectrum of programs from small dental civic-action programs in local villages to interface at the highest level of HN dental care system infrastructure. The following is a partial list of activities and programs for which dental assets could be used:

- Provide dental treatment to members of the local population.
- Conduct oral hygiene classes and provide hygiene treatment in local communities.
- Assist in the establishment of community dental health programs.
- Assist in the development and/or establishment of an HN military dental health care system.
- Assist in the training of local dental care providers.
- Provide consultation and assistance on HN dental health care programs (for example, designing and administering a survey to determine the level of oral health of a population).

c. For dental programs to be successful, certain guidelines which parallel the LIC imperatives must be followed:

(1) Dental programs must be coordinated with the HN dental system infrastructure from the local to the national level to ensure unity of effort, compliance with HN standards, and to enhance the legitimacy of the HN dental system to the population.

(2) Dental programs should be in concert with the political objectives of the country. They should be carefully coordinated with other governmental agencies through the command surgeon and/or the US embassy country team.

(3) Activities should be directed toward long-term benefit for the supported population. They should not exceed the capability of the HN to continue the service once US forces have departed.

(4) Activities should be conducted in partnership with the HN, and credit for accomplishment should be reflected on the HN and not the US.

7-5 Dental Support Planning for Low-Intensity Conflict Operations

a. Dental staff participation should begin early in the planning of HSS for LIC operations. Chapter 4 addresses planning and recommended formats for estimates, plans, and orders. These also apply to LIC operations. A dental-specific LIC medical mission reconnaissance checklist would be a valuable planning aid. The example shown in FM 8-42 could be adapted to fit dental requirements.

b. When the mission calls for HCA operations, some additional considerations must be addressed in the planning process:

- Endemic oral diseases.
- Status or oral health care in the HN.
- Organization of the HN dental health system.
- Host-nation dental health objectives.

CHAPTER 8

ALTERNATE WARTIME ROLES

Section I. INTRODUCTION

8-1 General

The alternate wartime role for dental personnel is to augment MTFs with additional combat casualty care capability, particularly during mass casualty operations. Casualty experience in a conflict may at times overwhelm MTFs. Dental resources, both personnel and equipment, constitute a valuable resource and are uniquely suited to support combat casualty care operations. There are many well-documented instances of dental personnel assisting in combat casualty care during past conflicts; however, this important role has only recently been formally recognized. Today, with formal training in ATM and a greater understanding of the importance of the alternate wartime role, dental personnel are far better prepared to assist during mass casualty situations. While dental alternate wartime role focus has generally always been at the individual level, collective use of the dental unit or its subordinate elements may at times be appropriate.

8-2. Training Requirements

In recognition of the alternate wartime role mission, the Assistant Surgeon General for Dental Services has established formal policy outlining training requirements in this area. These annual training requirements, based primarily on those outlined in DA PAM 40-13, are mandatory for all dental officers in the Army Dental Care System. A written record of wartime ATM training is maintained in the officer's credentials file and may be credited toward annual continuing health education requirements. Current training requirements address the following general subject areas:

- Medical sorting and triage.
- Initial burn treatment.
- Intravenous (IV) techniques.
- Treatment of maxillofacial injuries.
- Incubation.
- Psychological care.
- Infection control and sterile technique.
- Cardiopulmonary resuscitation (CPR) recertification.
- Management of soft tissue wounds.
- Treatment of orthopedic injuries.
- Management of NBC casualties.
- Forensic dental identification.
- Operating room procedures.

8-3. Additional Sources of Training

Acceptance of the ATM role is a tremendous responsibility which requires intensive training. Thirty hours of training per year is not enough to satisfy the demands which may be placed on the dental officer should he be required to assume his alternate wartime responsibilities. Fortunately, there are other sources of training to supplement the mandated classroom subjects.

a. Professional Training. Dental schooling provides the dental officer with a basic medical science background in subjects such as anatomy, physiology, histology, pathology, and other areas. It also provides training in basic clinic areas such as pharmacology and anesthesiology. Most importantly, the oral surgical skills taught in dental school and developed throughout the dental officer's career are easily adapted to other areas.

b. Military Training. There are numerous opportunities for formal military training throughout the dental officer's career which can add to his ATM training (some are mandatory such as CPR certification). Most notable is the Combat Casualty Care Course (C4) and the executive level Combat Casualty Care Management Course (C4A). The Chemical Casualty Care Course is very similar, but

with a singular focus. Preparation for and participation in Expert Field Medical Badge (EFMB) testing is another valuable source of training. Less formalized, but equally valuable, are familiarization rotations in a hospital emergency room, surgical service, or anesthesia service. Service-sponsored continuing education and temporary duty (both local and funded) are excellent opportunities for ATM training.

c. Formal Nonmilitary Training. Numerous formal courses of study are generally available in the civilian community which can supplement ATM. Organizations such as the Red Cross and the American Heart Association offer numerous courses leading to certification in such things as Advanced Cardiac Life Support and CPR instructor certification. Emergency medical technician and paramedic training may also be available.

d. Individual Study. The most accessible form of training available to the dental officer is self-study through personal reading. Additionally, appropriate correspondence courses are available through military and civilian sources.

8-4. Enlisted Training

Provision of dental services is a team effort. Likewise, retention of the dental officer/dental specialist relationship can at times be expected during performance of alternate wartime roles. It is important, therefore, that the enlisted members of the dental team also be appropriately trained to assist in ATM. Formal opportunities are fewer than for dental officers, but numerous training opportunities still exist. The Combat Lifesaver Course is a tremendous opportunity. Expert Field Medical Badge training and participation should be encouraged for all AMEDD personnel. Army correspondence courses available through the AMEDDC&S offer a variety of appropriate subjects. Civilian emergency medical technician and paramedic training are a valuable source of training and experience. Lastly, training provided by the unit can go a long way toward preparing the enlisted members of the dental team for their role in the ATM mission.

Section II. PLANNING FOR ALTERNATE WARTIME ROLES

8-5. General

Execution of the alternate wartime role mission is largely dependent on circumstance, but the dental unit must be prepared for a number of possibilities. The number of possible employment options of dental resources is limited only by the imaginations of both the dental commander and the supported medical commander. The possible courses of actions shown below are only generic solutions which must be modified according to circumstance. There are, however, two general categories of employment options—individual and collective unit participation. While the role of the individual dental officer has been the past focus when discussing alternate wartime roles, collective employment of dental units or their subordinate elements may at times be the option of choice.

8-6. Possible Casualty Encounters

The most likely place for dental assets to encounter combat casualties is in an adjacent MTF during periods of mass casualties. Augmentation of the MTF merits the greatest attention; however, dental personnel and units must be prepared for other possible encounters.

a. Dental Treatment Facility. The likelihood of casualties showing up at the DTF is quite high, particularly when there is no MTF immediately available. The probability of casualties being brought to an available DTF is increased during periods of rear-area battle or disaster in the base area. There is also the possibility of casualties from the dental unit itself who will need treatment or stabilization prior to further evacuation.

b. En Route. Dental units, particularly the forward treatment teams, are often en route to different locations. There is a reasonable possibility that casualties may be encountered along the way. In the event that medical assistance is not available, dental personnel may well find themselves in charge of the situation.

8-7. Individual Dental Officer Roles

There are a variety of roles that the individual dental officer can perform in support of the MTF. The role selected is dependent on both the skills of the dental officer and the needs of the medical commander. Possibilities are—

a. Assistant Surgeon. The inherent surgical skills of the dental officer make him well suited for employment as an assistant surgeon.

b. Anesthesiology. Use of the dental officer to administer anesthesia is a force multiplier which can increase surgery work load capacity.

c. Minimal Treatment Provider. Dental officers can be used as minimal care treatment providers; however, this function may also be delegated to medical ancillary personnel. The individual dental officer can be better used to perform those tasks listed above which require a higher level of skill.

8-8. Enlisted Role

Like the officer member of the dental team, dental ancillary personnel can be used in a number of roles. Use of enlisted personnel will depend largely on training, experience, and maturity. Junior enlisted members with minimal training in emergency medical treatment are best used in support roles such as assignment to a manpower pool for litter carrying. More experienced personnel with advanced training can be used as direct patient care assistants under the immediate supervision of qualified personnel.

Section III. DENTAL UNIT SUPPORT OF MEDICAL TREATMENT FACILITIES DURING MASS CASUALTY OPERATIONS

8-9. General

Section II discusses the possible individual dental officer and dental specialist alternate wartime roles. Dental officers assigned to an MTF such as a division medical company or a hospital are most likely included, along with their dental assistants, in the mass casualty plans for that facility. In situations where a dental unit or one of its larger subordinate elements is collocated with an MTF (perhaps a hospital), collective use of the dental unit in mass casualty situations may be advantageous. When additional treatment space is required, use of the adjacent DTF is incorporated into the collective utilization option.

8-10. Dental Unit Equipment Resources Available

Each subordinate element of the various dental units has assigned TOE and CTA equipment which can be used to support ATM, particularly when treatment provided in the DTF is limited to minimal-category casualties. In larger DTFs, the combined capability becomes quite large and can accommodate a substantial patient load.

a. Shelter. The DTF offers heated shelter suitable for the conduct of patient treatment. This benefit increases greatly when the DTF is set up within, or immediately adjacent to, the MTF complex.

b. Minor Surgical Support. Some dental equipment can be readily used in support of minor surgical procedures. Examples are—sinks, sterilizers, suction and pressure machines, dental lights, and fully declinable dental chairs.

c. Dental Instrument Sets. Dental equipment sets contain numerous materials and instruments which can be used to perform minor surgical procedures. Among these are anesthetic, scalpels, forceps, hemostats, suture material, and wire ligature.

d. Basic Resuscitation. Each DTF is equipped with a dental augmentation set which can be used to provide basic resuscitation for cardiopulmonary and other common medical emergencies.

8-11. Medical Treatment Facility Augmentation Options

There are a number of conceivable options for use of DTF resources in support of mass casualty operations,

all of which fit into one of three general categories. The option selected is a matter of agreement between DTF and MTF commanders.

a. Individual Augmentation/Manpower Pool. This option is discussed in Section II. The dental officers essentially augment various MTF services on an individual basis, and the enlisted soldiers work out of a manpower pool, primarily to support patient transportation. The major disadvantage in this option is that it fails to use the space and equipment available in the DTF. It also fails to use whatever collective skills and training the DTF may have.

b. Dental Treatment Facility Responsibility for a Treatment Function. The DTF could collectively assume responsibility for a mass casualty treatment function, thus freeing the MTF providers for other functions. The most logical of these functions for which the DTF's physical facility and personnel are best suited is treatment of minimal-category patients. Minor burns, soft tissue injuries, minor fractures, and sprains are all easily treated in the DTF. This option frees MTF patient care providers for other areas, expedites RTD of the minimal-category patient, and clears the MTF of a large percentage of the patients who can be expected in a mass casualty situation. Successful employment of this option requires advanced planning and careful coordination to ensure adequate supplies are available and patients are properly accounted for.

c. *Combination of the Above.* In those cases where a large DTF is collocated with a hospital, sufficient resources may be available to support a combination of both the above options.

8-12. Planning and Coordination

The key to successful use of dental resources in a mass casualty situation is planning and coordination. As a matter of priority, the DTF commander, upon arrival at a site collocated with an MTF, should coordinate with the MTF commander on a plan for use of the DTF's resources in the event the MTF is overwhelmed. Once a plan is established, it should be rehearsed at the earliest opportunity.

CHAPTER 9

DENTAL OPERATIONS IN A NUCLEAR, BIOLOGICAL, CHEMICAL, OR DIRECTED-ENERGY ENVIRONMENT

Section I. INTRODUCTION

9-1. General

The NBC and rapidly emerging DE dimensions of the integrated battlefield present a special challenge in the provision of dental service operations. The utility of NBC weapons against area targets, as well as their long range and flexible means of delivery, ideally suit them for use against CSS concentrations and MSRs. Generally located within or near these lucrative area targets, dental units are at no less risk to NBC weapons than any other unit in the CZ and COMMZ. Defense against NBC weapons and DE sources must be incorporated into the dental unit's TSOP, and specified individual and collective tasks must be intensely trained on a regular basis.

9-2. Mission in a Nuclear, Biological, and Chemical Environment

The overall mission of dental units to provide dental services is greatly affected in the aftermath of an NBC attack. First, the unit must survive the attack and rapidly recover from its effects. Second, in the event of mass casualties, the patient care effort must be redirected from dental treatment to the alternate wartime role of augmenting adjacent MTFs as discussed in Chapter 8. Provision of dental services in an NBC environment will generally be limited to treatment of maxillofacial emergencies requiring immediate attention.

9-3. Technical Guidance

There are many sources of technical guidance for dental units on NBC- and DE-related matters. The most specific guidance, however, on preparation for and response to an NBC attack should be contained in the TSOP of the parent headquarters.

a. Doctrinal References. Field Manual 8-10-7 is the basic tactics, techniques, and procedures manual applicable to dental and other HSS units operating in an NBC environment. Field Manuals 8-9, 8-33, 8-285, and the Emergency War Surgery NATO Handbook provide guidance on patient treatment in the NBC environment. The FM 3-series provides doctrinal guidance on individual and collective NBC tasks common to all Army units.

b. Unit Chemical Operations Specialists. Both the HHD of the medical battalion (dental service) and medical company (dental service) have organic NBC NCOs (54B, chemical operations specialist). In the medical company (dental service), the NBC NCO (E5) provides training, advice, and supervision regarding proper use and maintenance procedures for NBC equipment. He also advises and assists the commander and unit NBC officer in planning and conducting unit decontamination and other unit NBC operations. In the HHD of the medical battalion (dental service), the NBC NCO (E7) serves as the senior advisor to the commander and his staff on NBC-related matters, coordinates NBC operations within the battalion, and monitors the NBC readiness of subordinate units. In addition, he serves as the NBC NCO for the HHD, performing the same unit functions as those listed above for the medical company (dental service) NBC NCO. Neither the medical detachment (dental service) nor the medical team (prosthodontics) have an organic NBC specialist. They must rely on either the medical battalion (dental service) HHD or the medical company (dental service) to which assigned or attached for technical expertise.

c. Unit Nuclear, Biological, and Chemical Personnel. Each dental unit details an officer on orders to act as the unit's NBC officer. In the medical battalion (dental service) and medical company (dental service) the medical service (MS) executive officer is usually designated the unit NBC officer. Other personnel are appointed to assist the unit NBC NCO in reconnaissance, decontamination, and other NBC-related operations as specified in the FM 3-series.

Section II. NUCLEAR, BIOLOGICAL, AND CHEMICAL ENVIRONMENT

9-4. General

An NBC environment has an extremely adverse effect on the conduct of dental operations. Potentially high casualty rates, materiel loss through unprotected exposure, and the creation of obstacles to movement and mobility serve to degrade mission performance. Contamination, whether nuclear, biological, or chemical, is a major impediment to operations even for a well protected force. Directed energy does not produce contamination, but requires special precautions just the same.

9-5. Nuclear Environment

Nuclear weapons produce three categories of damaging effects: blast, thermal radiation (heat and light), and nuclear radiation (principally, gamma rays and neutron particles). The effects of nuclear radiation are spread by both the detonation blast and the wind, effectively producing widespread areas of contamination.

a. Casualties generated in a nuclear attack will likely suffer concurrent injuries from the combination effects of blast, thermal burns, and radiation. These casualties fall into three categories:

(1) *Irradiated casualty.* The irradiated casualty is one who has been exposed to ionizing radiation, but is not contaminated. They are not radioactive and pose no radiation threat to health care providers. Casualties who have suffered exposure to initial nuclear radiation fit into this category.

(2) *Externally contaminated casualty.* The externally contaminated casualty has radioactive dust and debris on his clothing, skin, or hair. He presents a "housekeeping" problem. The externally contaminated casualty should be decontaminated at the earliest time consistent with required care. Lifesaving care is always rendered, when necessary, before decontamination is accomplished. Radioactive contamination can be monitored with a radiation detection instrument such as the AN/PDR-27 or AN/VDR-2. Removal of the outer clothing will result in greater than 90 percent decontamination. Soap and water can be used to further reduce the contamination levels. A contaminated patient—or even several contaminated patients—is unlikely to present a radiation hazard to attending medical personnel.

(3) *Internally contaminated casualty.* The internally contaminated casualty is one who has ingested or inhaled radioactive materials, or has had radioactive material injected into the body through an open wound. The radioactive material continues to irradiate the casualty internally until the material decays, is biologically eliminated, or is removed by surgical debridement. Attending health care personnel are shielded, to some degree, by the patient's body. Inhalation, ingestion, or injection of quantities of radioactive material sufficient to present a threat to medical care providers is highly unlikely.

b. Dental units operating in a contaminated environment created as a result of residual radiation (fallout) will face three basic problems—

(1) Immersion of the unit area in fallout, causing contamination of shelter, unprotected supplies and equipment, vehicles, personnel, and personal equipment.

(2) Casualties among unit personnel as a result of direct exposure to radiation.

(3) Contamination of supply routes and other areas required for movement.

9-6. Biological Environment

A biological attack (using bomblets, rockets, or spray/vapor dispersal, release of arthropod vectors, and terrorist/insurgent contamination of food and water, frequently without immediate effects on exposed personnel) may be difficult to recognize. Biological warfare indicators include—

- Increases in disease incidence or fatality rates.
- Sudden presentation of an exotic disease.
- Other sequential epidemiological events.

9-7. Chemical Environment

Description of the chemical environment is complicated by the increasing number of known agents, variety of damaging effects, varying degrees of persistence and volatility, and multiple means of delivery. The environment is further complicated by employment of chemical agents in combination or chemical agents combined with conventional ordnance. As with nuclear weapons, in addition to casualties among unprotected soldiers, the varying degrees of contamination produced in the aftermath of a chemical attack severely degrade unit capability until decontamination is accomplished and the contaminated area is vacated. Detailed background information contained in FMs 3-3, 3-4, and 8-9 concerning the chemical as well as nuclear and biological environment must be clearly understood by dental commanders and their subordinates.

9-8. Directed-Energy Environment

Directed-energy sources are becoming more prevalent on the modern battlefield and their presence will undoubtedly increase in the future. This will produce yet another dimension in the integrated battlefield. Directed-energy sources include laser, microwave, or radio frequency systems. Directed-energy sources are nondiscriminatory. Adverse effects on dental units may result from inadvertent exposure to friendly use as well as enemy employment. Field Manual 8-50 provides additional information on prevention and medical management of laser injuries.

Section III. DENTAL UNIT SURVIVAL IN A NUCLEAR, BIOLOGICAL, AND CHEMICAL ENVIRONMENT

9-9. General

Dental units and their personnel must be able to survive an NBC attack, recover from its effects, and then continue the dental care mission. To survive and recover, a number of individual and collective tasks derived from the principles of NBC defense must be accomplished. Dental units are suitably equipped to perform these tasks.

9-10. Principles of Nuclear, Biological, and Chemical Defense

The principles of NBC defense are discussed in Chapter 4 of FM 3-100. These principles, briefly discussed below, apply to all dental units regardless of their location in the theater.

a. Avoidance. Avoidance measures consist of both active and protective measures.

(1) Passive avoidance measures:

- Training.
- Camouflage and concealment.
- Use of hardened positions.
- Dispersion.

(2) Active avoidance measures:

- Contamination detection.
- Contamination marking.
- Alarms and signals.
- Warning and reporting system.
- Contamination control.

b. Protection.

- Hardening of positions and protecting personnel.
- Assuming mission-oriented protective posture (MOPP).
- Reacting to attack.
- Using collective protection.

c. Decontamination.

- Hasty decontamination.
- Deliberate decontamination.

9-11. Nuclear-, Biological-, and Chemical-Related Clothing and Equipment

The TOEs and appropriate CTAs for dental units provide suitable NBC equipment for the accomplishment of both individual and collective NBC survival tasks.

a. Individual Protective Equipment. All dental TOEs provide protective masks for each soldier in the unit. Two sets of MOPP clothing (trousers, jacket, overboots, mask with hood, and gloves) are allocated by CTA 50-900 for each soldier. Other NBC items intended for individual use such as VGH ABC-M8 Detector Paper, M258A1 Skin Decontamination Kit (being replaced by M291), nerve agent antidote autoinjectors (MARK I) and pyridostigmine bromide (PB) pretreatment tablets are maintained in sufficient quantities by the unit to ensure initial and resupply issue for each soldier. A convulsant antidote for nerve agent (CANA) is under development. Field Manual 8-285 will prescribe its use when fielded.

b. Nuclear-, Biological-, and Chemical-Related Equipment. Current dental TOEs provide the following common items of NBC-related equipment:

- Chemical agent alarm.
- RadiacSet AN/PDR-27 or AN/VDR2.
- Radiacmeter: IM-93/UD.
- Radiacmeter: IM-174/PD.
- Radiacmeter: IM-9/PD (used by x-ray personnel).
- Radiacmeter: DT 235.
- Charger radiac detector: PP-1578/PD.
- Charger battery: PP-34/MSM.

c. Common Use Nuclear, Biological and Chemical Items Not Prescribed by TOE. Various FM 3-series NBC publications require that units also have on hand the following common use NBC-related items:

- VGH ABC-M8 detector paper.
- M9 detector paper.
- M11, decontamination apparatus mounted on each vehicle.
- Standard NATO NBC hazard marking kit.
- Decontaminating solution No. 2 (DS2).
- Supertropical bleach (STB).

d. Nuclear-, Biological-, and Chemical-Related Repair Parts and Replenishment Supplies. The unit must maintain stocks of NBC-related repair parts and replenishment supplies IAW the technical publications for the various items of equipment. Of particular importance among these items are replacement filters, hoods, carriers, and other items for the protective mask. The unit's NBC NCO manages unit NBC supplies in coordination with the unit supply NCO and supervises maintenance on NBC equipment.

e. Eyeglass Inserts for the Protective Mask. Soldiers who require eyeglasses for vision correction are required to have one pair of prescription optical inserts for use with their protective mask. Optical inserts are stored and maintained as part of that soldier's mask.

9-12. Individual Tasks

a. Individual NBC-related survival tasks are common to all soldiers. Successful application of each task is essential to personal as well as collective dental unit survival. These tasks must be drilled constantly and incorporated into broader scale training. The following NBC-related tasks, along with necessary training information, are covered in Soldier Training Publication (STP) 21-1 -SMCT.

- Put on, wear, remove, and store your M17-series protective mask with hood.

- Maintain your M17-series protective mask with hood.

- Decontaminate your skin and personal equipment.

- Put on and wear MOPP gear.

- Recognize and react to chemical or biological hazard.

- React to nuclear hazard.

- Use M8 detector paper to identify chemical agent.

- Use M9 detector paper to detect chemical agent.

- Exchange MOPP gear.

- Prepare the chemical agent monitor for operation.

- Put the chemical agent monitor into operation.

- Prepare the chemical agent monitor for movement or storage.

- Drink from canteen while wearing your protective mask.

- Use the latrine while wearing MOPP 4.

b. The following are NBC-related first-aid tasks:

- Administer nerve agent antidote to self (self-aid).

- Administer first aid to a nerve-agent casualty (buddy aid).

9-13. Collective Unit Tasks

Collective NBC tasks are generally accomplished by members of the unit organized into specific teams or by designated members of the unit's headquarters. Successful performance of those individual tasks listed above is also necessary for accomplishment of the various collective tasks, and ultimately, unit survival. Collective tasks which dental units must be prepared to perform in an NBC environment are derived from the principles of NBC defense:

- Establish a unit alarm and warning system.

- React to a chemical attack.

- React to a nuclear attack.

- React to a biological attack.

- Operate in a contaminated area.

- Conduct hasty decontamination of personnel and equipment.

- Conduct deliberate decontamination. (NOTE: Dental units require external support for conduct of deliberate decontamination.)

- Mark contaminated areas.

- Conduct NBC surveys and monitoring.

- Monitor exposure of unit personnel to radiation.

- Utilize NBC Warning and Reporting System (NBCWRS).

9-14. Decontamination

a. Decontamination is costly in terms of manpower, time, space, and materiel, and merits special discussion. Decontamination is essential for survival, but must be balanced with the requirement to continue the mission. Both categories of decontamination, hasty and deliberate, are based on four basic principles, as follows—

- *SPEED* — Decontaminate as soon as possible to restore full potential.

- *NEED* — Decontaminate only that which is necessary.

- *LIMIT* — Decontaminate as close to the site of contamination as possible.

- *PRIORITY* — Decontaminate items in order of importance to mission accomplishment.

b. Hasty Decontamination. Dental units are capable of conducting hasty decontamination using only organic resources. Field Manual 3-5 describes in detail the procedures for hasty decontamination, which include MOPP gear exchange and vehicle washdown.

c. Deliberate Decontamination. Deliberate decontamination is the most resource-intensive type of decontamination and requires external support from supporting decontamination units. Field Manual 3-5 describes in detail the procedures for deliberate decontamination, which include decontamination of troops and equipment. Keep in mind that the supporting decontamination unit is in charge of both the decontamination site and the decontamination operation.

9-15. Dental Support During Nuclear, Biological, and Chemical Operations

Dental support during NBC operations are orchestrated by the various levels of dental unit headquarters, based on the capability within the respective unit. The battalion HHD and the medical company (dental service) with their organic NBC NCOs have greater capability than the medical detachment (dental service) and the medical team (prosthodontics) which have no organic NBC NCOs. Nevertheless, the smaller units still must operate effectively in the NBC environment. The commander is ultimately responsible for unit dental activities during NBC operations; however, he will generally delegate planning and supervisory responsibility to an appointed NBC officer. When assigned, the unit NBC NCO provides technical advice to the commander and NBC officer and supervises support relative to NBC operations and training. A number of NBC-related tasks are executed by unit headquarters.

a. Establishment of Nuclear, Biological, and Chemical Policy. Nuclear, biological, and chemical policy is incorporated in the unit's TSOP. Key personnel such as the NBC officer are appointed on orders. Personnel requirements for various decontamination, survey, and monitoring teams are determined and designated personnel are appointed on orders.

b. Nuclear, Biological, and Chemical Warning and Reporting System. The unit headquarters coordinates implementation of the NBCWRS system--receiving, generating, or disseminating the various standard NBC reports. Field Manual 3-3 discusses the use and formats for these reports.

c. Maintain Records of Radiological Exposure. The unit headquarters maintains a record of exposure of its personnel to radiological hazards. This information is used in generating a radiation status report to higher headquarters. Exposure of x-ray personnel as indicated on their IM-9/PD radiacmeter must be included in this record.

d. Operational Planning and Intelligence. The HHD of the medical battalion (dental service), in particular, is responsible for disseminating NBC information to its subordinate units and incorporating that information into the overall operational planning for the battalion.

9-16. Mission-Oriented Protective Posture

The most important headquarters function for dental support during NBC operations is the establishment of MOPP level, a decision which rests solely with the commander. Mission-oriented protective posture is the flexible use of protective clothing and equipment that balances protection with performance degradation. The higher the MOPP level, the more protection it affords, but the more it degrades performance through generation of heat, stress, and reduced efficiency. Detailed guidance on individual NBC protection and MOPP is provided in FM 3-4. Keep in mind that MOPP is not a rigid policy, but must be applied with common sense and flexibility. To determine appropriate MOPP level, the commander conducts a MOPP analysis which weighs mission; work rate and duration; probable warning time; terrain, weather, and time of day; unit training and additional protection available; alarm placement; and automatic masking policy.

Section IV. DENTAL TREATMENT OPERATIONS IN A NUCLEAR, BIOLOGICAL, AND CHEMICAL ENVIRONMENT

9-17. General

As a general rule, in the aftermath of an NBC attack, dental treatment operations cease until deliberate decontamination of the unit and its equipment has been accomplished. Only maxillofacial injuries of an immediate life-threatening nature should be considered for treatment. After an attack, the resources of the DTF are redirected toward decontamination and relocation to a noncontaminated area, or toward support of any mass casualty situation which may have been generated in adjacent MTFs. See Chapter 8 for information on alternate wartime roles.

9-18. Patient Treatment Considerations

The only category of dental treatment appropriate in an NBC environment is emergency; and then, only those emergencies of an extreme nature which demand immediate attention. The most likely condition requiring such attention would result from maxillofacial trauma and would be most likely to present at an MTF rather than a DTF. Though the likelihood of a requirement to treat dental patients in an NBC environment is extremely low, DTFs must have a plan in the event that such treatment is required.

a. Patient Decontamination. Decontamination of patients (dental patients included) must be accomplished before they enter a treatment facility for definitive care. Contaminated patients are triaged separately and decontaminated prior to treatment unless immediate life- or limb-saving care is required. The decontamination process may be interrupted to provide such care. Patient decontamination falls into the category of deliberate decontamination. Specific details of patient decontamination are contained in FMs 8-10-4,8-10-7, and 3-5. Performance of patient decontamination is not an appropriate alternate wartime role for dental personnel. However, dental personnel may be called upon to assist in providing medical care in this environment. All personnel should be trained to handle contaminated casualties when necessary. Initial decontamination at the basic skill level is accomplished at the casualty's unit. Detailed patient decontamination is accomplished by patient decontamination teams made up of personnel from the supported unit and supervised by medical personnel.

b. Patient Decontamination by Dental Treatment Facilities. Neither dental units nor their subordinate DTFs are equipped to support detailed patient decontamination. Those contaminated patients requiring urgent attention which may present at a DTF must be directed or evacuated to the nearest MTF with a patient decontamination capability prior to treatment.

9-19. Patient Protection

Dental treatment facilities must also consider the need to protect patients in their care in the event of NBC attack or when the threat of an attack is high. Special consideration must be made for maxillofacial patients whose condition prevents them from wearing a standard protective mask.

a. Immediate Response. In the event of an attack or when the alarm sounds, the dental treatment providers immediately cease work and mask. The patient should do likewise. After donning their own masks, dental treatment providers should assist the patient if necessary by removing materials which impede the patient's masking. Only those materials which impede masking or may compromise the airway (for example, rubber dam frames, impressions) are removed. The rest are left in place until the all clear is sounded. Special attention must be given to patients who may have been medicated into a less than fully conscious state or otherwise incapacitated.

b. Mission-Oriented Protective Posture Level Considerations. The MOPP level should be taken into account when determining the category and extent of dental treatment to be provided. Patients, including those seated in the dental chair, should be at the MOPP level prescribed for the DTF by its parent headquarters. Dental treatment at MOPP Levels 3 and 4 is of course rendered impossible by the requirement to wear the protective mask;

however, treatment is still possible at Levels 0-2. Treatment at Level 2 should be limited only to emergency category care requiring urgent attention. At MOPP Level 1, most types of dental emergencies can be accommodated; however, only minimum essential treatment should be undertaken to reduce risk of the patient being caught in a compromised state. The MOPP Level 0 generally does not limit the provision of dental treatment; however, the degree of the NBC threat forecast for the area should be considered before undertaking extensive treatment. Refer to FM 3-4 for additional information on MOPP levels.

c. Maxillofacial Injuries. Patients with maxillofacial injuries which prevent proper fit and seal of the individual protective mask must be placed in a patient protective wrap. Though patients with these types of injuries are most likely to be found only in MTF channels, DTFs should nevertheless be prepared. DTFs should maintain one or two protective wraps on hand for this purpose. Protective wraps are currently available only in the chemical warfare agent treatment sets organic to MTFs. Special arrangements for their procurement for dental use must be made with either adjacent MTFs or the servicing medical logistics (MEDLOG) battalion.

CHAPTER lO

PERSONNEL SERVICES AND ADMINISTRATION

Section I. INTRODUCTION

10-1. General

Personnel services and administration is a collection of processes which allow the commander to initiate personnel actions, input finance matters, report unit strength, recommend awards, administer UCMJ, and maintain a file of the unit's activities. Also included among these are chaplain support, morale support activities, and postal operations. For the purposes of this manual, unit administration refers to general administration and personnel management within the unit and does not apply to administration associated with patient care and unit operations. Other chapters within the manual, particularly Chapters 3 and 5, discuss administration of patient care and unit operations. In-depth coverage of dental unit administration is not within the scope of this manual; therefore, the remainder of this chapter only highlights general areas of concern to the dental commander and provides references when appropriate. Nevertheless, unit administration and personnel services are critical aspects of the unit's readiness and must be properly attended. It is imperative that the commander and his headquarters staff be knowledgeable in this broad area and execute their responsibilities accordingly. Routine administrative procedures should be included in the unit's TSOP.

10-2. Administrative Personnel

Each dental unit, with the exception of the medical team (prosthodontics), has a varying number of organic administrative personnel. The senior dental NCO supervises the administrative and personnel management operations of the unit. In the companies and detachments, administrative personnel conduct the daily personnel management and administrative business, while the function of the more senior battalion personnel is to provide staff supervision and guidance to their subordinate units. The unit clerk is the primary administrative person in the company, detachment, and battalion HHD. The battalion HHD also has a personnel services NCO (75B). The unit clerk is responsible for a broad range of administrative and personnel actions in the unit. The personnel services NCO in the battalion HHD performs the functions of a personnel administration center (PAC) for the battalion.

10-3. Support Requirements

Dental units are not self-sustaining with regard to personnel services and administration. They rely on higher head quarters and supporting personnel service support (PSS) organizations. Each dental unit is dependent on either the corps support command (COSCOM) or the Theater Army Area Command (TAACOM) for finance, religious, legal, and personnel and administrative services. Dental units also depend on higher headquarters such as the medical group and medical brigade for technical guidance and staff supervision.

Section II. UNIT ADMINISTRATION

10-4. General

Unit administration is the foundation of the Army's systematic approach to the accomplishment of its daily business. It provides the basis for all other unit activities. General categories of unit administration include publications management, recordkeeping, correspondence, and duty rosters. Personnel management and postal operations are also a major part of unit administration and are covered in Sections III and IV of this chapter.

10-5. Publications

Part of the comprehensive system of unit administration is the collection of references known as DA publications. They are divided into five basic groups.

- *Administrative publications* — pertain to the conduct of military affairs and the internal management of units. Normally, they are permanent in duration and directive and regulatory in nature.

They outline policies and responsibilities for the entire Army.

• *Technical publications* — concern specific subjects in the arts, sciences, and trades. They are specialized, detailed, or professional guides for a particular subject. They are not directive.

• *Doctrinal, training, and organizational publications* — contain information regarding doctrine, tactics, techniques, and procedures that have been adopted for use by the Army.

• *Supply publications* — contain instructions for the procurement, distribution, maintenance, and salvage of supplies.

• *Miscellaneous publications* — contain information not readily associated with one of the above categories.

a. Indexes to Publications. Indexes to military publications are contained in DA Pam 25-30 (microfiche). This pamphlet lists each item categorically and numerically. Army Regulations 310-25 and 310-50 should be used in working with these publications.

b. Distribution and Resupply of Publications. Initial distribution and resupply of publications is made by two methods—command and pinpoint distribution.

• *Command distribution.* This method is used for initial distribution of publications and initial distribution and resupply of blank forms through command channels. This is accomplished through the system of installation publications stockrooms and overseas publication centers established and operated in the field. In CONUS, bulk quantities are furnished by Adjutant General (AG) publication centers to installation publications stockrooms for initial distribution to activities and units.

• *Pinpoint distribution.* This is a method by which publications are forwarded direct from the publication center to the using unit, bypassing the installation publications stockroom and resulting in more rapid distribution. All elements of the Army down to and including company level are authorized to establish a publications account/subaccount with the AG Publications Center in Baltimore. Use DA Form 12 to obtain an account number.

10-6. File System

The Modern Army Recordkeeping System (MARKS) prescribes the proper method for the systematic identification, maintenance, retirement, and destruction of Army information. Army Regulation 25-400-2 governs MARKS and should be readily accessible to unit administrative personnel. All files created within a unit must be established using the MARKS.

10-7. Correspondence

Army Regulation 25-50 is the unit clerk's reference for the preparation of Army correspondence. All correspondence from within the unit should follow the formats prescribed in this regulation.

10-8. Duty Rosters

Fair and equitable distribution of duty is an important factor in the maintenance of unit morale and is generally the responsibility of the senior dental NCO. Army Regulation 220-45 prescribes the procedures for establishment and maintenance of a duty roster.

Section III. PERSONNEL MANAGEMENT

10-9. General

Personnel management covers abroad range of actions to include: personnel accountability, replacement operations, personnel management, personnel actions, personnel records maintenance, casualty reporting, promotions, awards and decorations, and officer and NCO evaluations. In most instances the extent of the

dental unit's personnel management responsibilities is to feed data and reports through the higher headquarters PAC to the supporting personnel services unit. Personnel records, to include the formal Military Personnel Records Jacket, are maintained at the supporting personnel services unit. This section highlights those areas of personnel management for which the dental unit has significant internal responsibilities.

10-10. Personnel Accountability

The dental unit clerk maintains personnel data on each individual assigned and attached to the unit as deemed appropriate by the commander. Information concerning unit strength is transmitted by the unit, usually in hard copy, to the higher headquarters PAC. There is no standard format for transmittal of this information at company level or lower; however, local formats are usually prescribed by higher headquarters. At battalion level (including dental battalion HHD) personnel accounting is accomplished using the Standard Installation/Division Personnel System (SIDPERS) installed in the unit's Tactical Army CSS Computer System.

10-11. Personnel Actions

Individual personnel actions are forwarded through the PAC to the supporting personnel services unit. A Request for Personnel Action (DA Form 4187) is used for submission of individual personnel actions and status changes.

10-12. Casualty Reporting

In the event of friendly casualties, dental units must be prepared to report their casualties through channels prescribed in the TSOP of the higher headquarters, evacuate the casualties, make disposition of personal property, and if necessary conduct mortuary affairs operations IAW FM 10-63-1.

10-13. Promotions

A fair and equitable promotion system is not only good for morale but also ensures that the best qualified individuals fill positions of importance and leadership. This, in turn, enhances unit readiness. Policies and procedures governing the enlisted promotion system are covered in AR 600-200. As that regulation provides for varying degrees of decentralization of promotion authority in the TO, most specific guidance concerning promotion policies and procedures will be passed through the chain of command from the TAACOM.

10-14. Officer and Noncommissioned Officer Evaluations

The Noncommissioned Officer Evaluation Reporting System (NCOERS) and the Officer Evaluation Reporting System (OERS) are key factors in the promotion of officers and NCOs. Guidance for the OERS is contained in AR 600-200, and the NCOERS is covered in AR623-205. As is the case for promotions, provisions for modified implementation within the TO require specific guidance to be passed through the chain of command.

10-15. Awards and Decorations

Awards and decorations, a long-standing tradition in the Army, are used to recognize the valor and merit of individual soldiers. The requirements and formats for submission of awards are prescribed in AR 672-5-1. In many cases awards and decorations procedures are directed by the policies of higher headquarters. In addition to recognition, awards and decorations help a soldier toward promotion; therefore, it is important that appropriate information be transmitted into the soldier's official file.

Section IV. MILITARY JUSTICE, FINANCE, POSTAL, CHAPLAIN, AND MORALE SUPPORT

10-16. General

Though not technically defined as personnel or administrative services, military justice and chaplain support are discussed in this chapter. Dental units have very limited capability in these areas and are dependent on supporting corps units. Nevertheless, these areas are important aspects of dental unit administration and dental unit commanders have well defined responsibilities.

10-17. Military Justice

Authority under the UCMJ is delegated to commanders at all levels. It is a primary tool in the maintenance of unit discipline; however, imprudent administration can have an adverse effect on both morale and discipline. Delegation of UCMJ authority through the chain of command is to some degree the prerogative of the senior commander and may vary among commands. Implementation of the provisions of the UCMJ requires paraprofessional and professional legal support. The legal specialist at the medical brigade assists the brigade commander and his subordinates in preparation of UCMJ actions. The Staff Judge Advocate at the COSCOM or the TAACOM is the first level where professional legal support is available.

10-18. Finance

Ensuring that soldiers receive their due pay is important to morale. The Army finance system is centralized in the CONUS base with local management in the TO provided by corps or TAACOM finance units. The responsibility of dental units is to provide input to the supporting finance unit through SIDPERS or locally required transmittal documents. In addition to personnel finance services, other finance matters which may affect dental units are—

- Procurement of local supplies and services.
- Hiring of local national personnel.
- Contracting of HN facilities.

In these and other situations, guidance and support will be provided by higher headquarters.

10-19. Postal Operations

Receipt of mail from home is another key morale factor. Postal operations for dental units may be consolidated at higher headquarters or may require the dental unit to interface directly with the supporting AG postal unit. In any case, the unit will have one or more formally appointed mail clerks to undertake this important function. Access to the mail system is particularly important to dental units as it is the means by which prosthodontic cases are transferred to and from the supporting CONUS ADL.

10-20. Chaplain Support

Moral fitness is a part of total soldier fitness. In addition to religious support, chaplains provide emotional comfort and counseling to soldiers and act as advisors to the commander on the morale and moral climate of the unit. The first chaplain available to dental unit commanders is the chaplain assigned to the staff of the medical brigade.

10-21. Morale Support

Maintenance of morale is largely a function of leadership and command climate; however, specific activities which fall into the category of morale support serve to enhance individual and unit morale. Within the dental unit, morale support activities are necessarily simple and ad hoc in nature. For example, during times of reduced operational tempo, simple activities such as organized sports or individual physical training enhance maintenance of soldier fitness as well as morale. Within the COSCOM and TAACOM level, dependent on theater maturity and tempo, more formal morale support services may be available. Dental unit commanders must coordinate through higher headquarters to ensure that their personnel have access to these services when the situation permits.

CHAPTER l1

SUPPLY AND SERVICES, MAINTENANCE, AND HEALTH SERVICE SUPPORT

Section I. INTRODUCTION

11-1. General

Supply and maintenance are key factors in the sustainment of dental service operations. Both of these areas impact heavily on unit readiness and are a subject of intense command interest throughout the chain of command, While the senior dental NCO generally is tasked with overseeing unit administration, the MS executive officer is usually tasked with overseeing supply and maintenance operations. In the medical detachment, which has no organic MS officer, the senior dental NCO oversees these functions as well as administration.

11-2. Unit Supply and Maintenance Personnel

Tables of organization and equipment for the medical company (dental service) and medical detachment (dental service) provide a sufficient number of specialists, along with the necessary equipment, to conduct unit-level supply and maintenance operations. The battalion HHD, which has far less capability, and the medical team (prosthodontics), which has none, are dependent on a supporting unit (Usually a medical company [dental service]) for supply and maintenance. The following specialists are organic to the medical company (dental service) and medical detachment (dental service).

- *Motor Sergeant (63B30)* — supervises unit motor maintenance operations, management, and training.

- *Light Vehicle Mechanic(s) (63B1O/20)*— performs unit-level vehicle maintenance procedures.

- *Power-Generation Equipment Repairer (52D10)* — supervises unit generator maintenance operations and training and performs unit-level maintenance procedures.

- *Medical Equipment Repairer/Supervisor (35U30)* — organic only to the HHD of the battalion. Monitors the readiness of the battalion's medical equipment and provides technical guidance and supervision to subordinate units.

- *Medical Equipment Repairer(s) (35G1O/20)* — supervises unit medical equipment maintenance and performs unit-level medical equipment repairs.

- *Equipment Records Clerk (The Army Maintenance Management System [TAMMS]) (76C20)* — manages equipment and other maintenance-related records. As noted in the TOE, performs additional duty as the unit repair parts specialist. The TAMMS clerk generally works under the direct supervision of the unit motor sergeant.

- *Medical Supply Sergeant (76J20/30)*— performs unit medical supply operations to include management and accounting for all items of medical supply and equipment.

- *Unit Supply Sergeant (76Y20)* — performs unit supply operations for all classes of supply except medical. As noted in the TOE, performs additional duty as the unit armorer. In the medical battalion (dental service) and medical detachment (dental service) which have no organic supply sergeant, the medical supply specialist is generally assigned responsibility for the total unit supply operation.

- *Cook (94B10)* — organic only to the medical company (dental service). Generally attached for duty in the supporting dining facility since the medical company (dental service) has no organic field feeding equipment.

11-3. Additional Duties

There are numerous requirements for assignment of maintenance and supply, as well as administration-related additional duties. This is usually accomplished by letter order signed by the commander. Prescription of these duties comes from a number of sources; however, most are required by regulation. Many additional duties which specify an officer requirement fall into the domain of the executive officer's responsibilities. Higher headquarters are generally able to provide subordinate units with a consolidated listing of required additional duties as a part of the command inspection process. Some examples of required additional duties are—

- Motor officer.
- Safety officer/NCO.
- Reenlistment officer/NCO.
- Unit readiness officer.
- Physical security officer/NCO.
- NBC officer.

11-4. External Support Requirements

All dental units rely on COSCOM or TAACOM DS and general support (GS) units for higher echelon maintenance and supply support. In addition to unit-level responsibilities, the motor and supply sergeants, under the supervision of the executive officer, establish accounts and support agreements with supporting maintenance and supply activities for the provision of all classes of supply and maintenance services. Effective liaison with these supporting activities is essential to successful supply and maintenance operations.

Section II. SUPPLY AND SERVICES

11-5. General

Resupply of materiel consumed during the course of operations is a major function of the dental unit headquarters section. Though procurement of supplies is a critical function, other aspects of the supply system are also of great concern to the commander in the TO. These include—

- Property responsibility.
- Property accountability.
- Disposal, maintenance, and disposition of supply records.
- Reporting of unsatisfactory items of medical materiel.
- Inventory.
- Cash collection.
- Investigation and report of survey for lost and damaged property.
- Property security.

Additionally, dental units require services such as laundry and bath, transportation, and mortuary affairs. Discussion of specific procedures relating to the supply and service system is not appropriate in this manual; however, dental unit commanders and their responsible staff must develop a thorough understanding of these procedures. The remainder of this section deals primarily with general dental unit supply operations in the TO. Refer to ARs 40-61 and 710-2 for additional guidance on property management.

11-6. Classes of Supply

Supplies are categorized into ten classes. Dental units consume supplies from each of the ten classes to varying degrees. For dental units these ten classes of supply can be broken down into two general categories-medical supply and unit supply. Management of medical supplies is the responsibility of the unit's medical supply specialist. The other nine classes of supply can be categorized as unit supply and are managed, in most cases, by the unit supply sergeant. Table 11-1 lists the ten classes of supply and identifies the most likely manager within dental units, primary user within the unit, and supporting unit or source for each class of supply.

Table 11-1. Classes of Supply

CLASS	DESCRIPTION	PRINCIPAL	FEEDER	SOURCE
I	Subsistence Items	Sup Sgt	1SG, Clerk	DS Sup Co
II	Clothing, Personal Equip, CTA-type Equip	Sup Sgt		DS Sup Co
III	POL: Petroleum, Oils, Lubricants	Sup Sgt	Motor Sgt, Generation Rep, Armorer, DTFs	DS Sup Co
IV	Construction, Barrier Materials	Sup Sgt		MMC
V	Ammunition, Pyrotechnics	Sup Sgt		S&S Co
VI	Personal Demand (PX) Items	Sup Sgt\1SG		S&S Co
VII	Major End Items (nonmedical)	PBO, Sup Sgt		MMC
VIII	Medical Supply and Equip Medical Repair Parts	Med Sup Spc	Medical Equip Rep, DTFs	MEDLOG Bn
IX	Repair Parts	PLL Clerk	Motor Sgt, NBC NCO, Armorer, Generation Rep, DTFs	Maint Co
X	Nonmilitary/Civil Affairs	Sup Sgt\Med Sup Spc		G5/J5

11-7. Medical Supply Operations

Dental units consume a significant amount of dental materials (medical supply) during the course of patient treatment operations, particularly when maintaining-level care is being provided. An efficient system for replenishing those materials must be established within the unit and with the supporting MEDLOG battalion.

a. Within the dental unit, the unit's DTFs requisition resupply from the unit's medical supply specialist. Resupply requirements from DTFs can be identified either on a locally standardized form, as part of the periodic status report forwarded to the unit by the DTF, or by using DA Form 3161 IAW DA Pam 710-2-1. The unit's medical supply specialist, in turn, consolidates requirements, prepares DA Form 3161 (if not done by the DTF), and forwards the consolidated request to the supporting MEDLOG battalion.

b. Distribution of medical supplies within the dental unit is by one of two methods. *Unit distribution* is the most common method used when the unit's DTFs are in proximity. Supplies are picked up by the unit's headquarters personnel from the supply point and delivered to the DTFs using organic vehicles. *Supply point distribution* is used when DTFs are located at an inconvenient distance from the unit headquarters section. In this case, the affected DTFs establish accounts directly with the MEDLOG battalion or one of its forward or area support platoons, rather than going through the unit medical supply specialist. When DTFs use supply point distribution, they must continue to report expenditure and replenishment to the unit so the commander can remain abreast of the supply situation. When a forward treatment team has a long-term relationship with a host unit such as a hospital or medical company, a provisional method should be considered whereby the forward treatment team obtains its supplies through the host unit. Supply distribution

should be a matter for inclusion in the unit TSOP as well as specified in orders and plans developed by higher headquarters.

11-8. Unit Supply Operations

As stated earlier, unit supply operations include all classes of supply other than Class VIII. The medical supply specialist manages Class VIII medical supplies, and the unit supply sergeant manages all other classes with the exception of Class IX, repair parts. Management of repair parts is the responsibility of the unit TAMMS clerk who performs the duties of a repair parts specialist as an extra duty. Management of the various nonmedical classes of supply is essentially the same as for Class VIII; however, distribution and source will vary with the class of supply.

a. Classes I, II, III, V, and VI are provided by appropriate elements of the supporting COSCOM or TAACOM DS supply company. Distribution can be accomplished on either a unit or a supply point basis—again depending on the location of the unit's subordinate DTFs. In the case of bulk fuel, dental unit distribution capability is limited to 5-gallon cans. Therefore, dental units must rely on host units with fuel distribution capability, or must refuel directly from the designated supply and service company fuel distribution point. Rations are obtained from the unit designated to provide food service support.

b. Class IV, Barrier and Construction Materiels; and Class VII, Major Nonmedical End Items (trucks, generators, and others) are managed by the Materiel Management Center (MMC) responsible for the area. These classes of supply, designated as critical items, are intensely managed throughout the supply system from the CONUS base to the TO. Requests for items in these categories are forwarded by dental units through the chain of command to the supporting MMC. These materiels are usually issued by supply managers at the various levels, using a priority issue list maintained by the MMC.

c. Class IX, repair parts of all types (other than medical) are managed by the unit repair parts specialist. Repair parts resupply is more commonly associated with the maintenance system rather than the supply system, especially in light of the fact that COSCOM or TAACOM maintenance units are the source of repair and repair parts. As part of the repair parts system, dental units carry a prescribed load list (PLL) of repair parts and maintenance-related items to ensure that high demand repair parts are immediately on hand for use by unit maintenance personnel. Guidance on repair parts and PLL stockage is provided in DA Pam 710-2-1.

d. Class X covers a broad category of supplies used in nonmilitary/CA operations. Issue of Class X supplies is managed through the COSCOM G5/ TAACOM J5 and is coordinated through the chain of command.

11-9. Services

Dental units use a number of services, all of which are provided by COSCOM or TAACOM units. Among these services, laundry and bath is the most frequently used. Service support is generally arranged through the chain of command or designated in orders. Dental units have limited transportation resources. External transportation assets from COSCOM or TAACOM will normally be required to move any dental unit in a single lift. Mortuary affairs support is provided by COSCOM or TAACOM mortuary affairs units.

11-10. Role of the Dental Battalion Headquarters and Headquarters Detachment

The logistical services which the HHD of the dental battalion provides to its subordinate units are limited by its size. The services are limited primarily to technical guidance in the areas of Class VIII supply and medical equipment maintenance and are provided by the 76J medical supply sergeant (E5) and the 35U medical equipment repairer/supervisor (E6). The primary role of the battalion HHD is to monitor the logistics status of the battalion by reviewing status reports (and other reports) submitted by the subordinate unit. Most frequently used supplies are obtained by the subordinate units directly from supply providers such as the MEDLOG battalion, without going through the dental battalion. However, in the case of command designated critical items such as barrier materials or major end items, supply transactions are routed through the dental battalion HHD. High demand dental items which are in short

supply may require intensive management requiring routing through the dental battalion. The dental battalion HHD may find it necessary to cross-level items of dental equipment and supplies, as well as other major end items within the battalion as the situation dictates.

Section III. MAINTENANCE

11-11. General

Maintenance of vehicles and equipment is a critical aspect of sustainment in the TO. The unit which fails to maintain its equipment in good operating order will likewise fail to accomplish its mission. The Army definition of maintenance includes inspecting, testing, calibrating, servicing, classifying as to serviceability, repair, rebuilding, and reclamation—all tied together with a prescribed recordkeeping system. The overall objective is to assure that materiel is maintained in a ready condition to fulfill its intended purpose. Dental units, with the exception of the dental battalion HHD and the medical team (prosthodontics), have a significant maintenance capability. The dental battalion HHD and the medical team (prosthodontics) must rely on a host medical company (dental services) to which they are attached for organizational maintenance support.

11-12. The Army Maintenance System

Army regulations of the 750-series prescribe the basic concepts, objectives, policies, and procedures for the maintenance of Army materiel. Guidance for implementation of TAMMS is provided in DA Pam 738-750. Technical Bulletin 38-750-2 adapts DA Pam 738-750 for use with medical equipment. Dental unit commanders must be well versed in the contents of all of these publications.

11-13. Preventive Maintenance

Preventive maintenance (PM) is the care and servicing to maintain equipment and facilities in satisfactory operating condition. It is provided through systematic inspection, detection, and correction of incipient failures before they occur or before they develop into major defects. Preventive maintenance is the responsibility of commanders at all echelons and is accomplished by user and maintenance personnel. Commanders are responsible also for ensuring maintenance of equipment is performed IAW published maintenance doctrine at the lowest category consistent with the repair parts, tools, and skills available (AR 750-1).

a. Operator Maintenance. This is maintenance performed by the equipment operator or crew before, during, after use, and at other intervals prescribed by pertinent publications. The equipment is inspected and serviced by procedures outlined in applicable technical manuals, lubrication orders, or publications such as the manufacturer's instructions. Deficiencies not corrected by the operator must be reported to the supervisor so that appropriate unit maintenance personnel can be notified.

b. Requirements. Requirements of an effective PM program include:

(1) Training and instruction of maintenance personnel and operators in proper PM practices and operating procedures.

(2) Systematic and periodic inspection and servicing.

(3) Assignment of specific maintenance responsibilities to operating personnel and to skilled maintenance personnel.

(4) Supervision of PM programs by the unit chain of command.

c. Preventive Maintenance Indicators. The physical inspection of equipment is not beyond the capability or proper activity of the commander. Effective unit maintenance relies heavily upon this personal inspection by the commander himself. Even though he cannot examine all the details of the many points of inspection, he can get a good idea of the condition of his unit's equipment by checking a few points that represent the quality of maintenance that

has been performed. These points, called "PM indicators," include performance, noise, lubrication, loose or missing parts, damage or abuse, adjustment, and cleanliness. Technical Manual 8-6500-001-10-PMCS guides the commander in—

- Preventive maintenance responsibilities, requirements, and procedures for reportable medical equipment.
- Serviceability standards for reportable medical equipment.
- Preparation for packing and storage of reportable medical equipment.

11-14. Categories of Maintenance

Maintenance services are provided at echelons defined as categories of maintenance.

a. Organizational. Maintenance authorized for and performed by an organization on equipment in its possession. Organizational maintenance is usually limited to prescribed PM service and minor repairs.

b. Direct Support. Materiel maintenance authorized for and performed by designated TOE maintenance units in DS of using organizations. Field Manuals 43-11 and 43-12 provide details on DS maintenance.

c. General Support. Characterized by the capacity to repair and overhaul unserviceable equipment for return to local area supply systems, and to back up DS maintenance units as required through repair and return of equipment to the using organization.

d. Depot. Fixed industrial-type facilities, usually located in the CONUS base, with a mission of repairing, overhauling, or rebuilding equipment to meet overall DA requirements.

11-15. Vehicle Maintenance

The medical company (dental service) and medical detachment (dental service) are well staffed with personnel and equipment to perform organizational-level maintenance on organic vehicles as well as those vehicles belonging to supported units such as the dental battalion HHD or the medical team (prosthodontics). The motor sergeant in each of these units supervises overall maintenance operations performed by organic wheeled vehicle mechanics. The 76C TAMMS clerk keeps maintenance records on the unit's vehicles and also serves as the unit's PLL clerk as stated in Chapter 10. Direct support and GS maintenance are provided by COSCOM or TAACOM maintenance units. It is important that the dental unit, usually the executive officer, maintain an active liaison with the supporting DS maintenance activity.

11-16. Power-Generation Equipment Maintenance

In dental units, the organic power-generation repairer, 52D, performs organizational maintenance on the unit's organic generators and power distribution equipment. The Army Maintenance Management System and PLL support are provided by the TAMMS clerk. Direct support maintenance is provided by COSCOM or TAACOM DS maintenance activities.

11-17. Medical Equipment Maintenance

The medical equipment repairers in the medical company (dental service) and medical detachment (dental service) perform organizational level maintenance on the unit's medical equipment. In addition, they maintain maintenance records on that equipment IAW TB 38-750-2. Direct support and GS maintenance are provided by the MEDLOG battalion. The medical equipment repairer assigned to the dental battalion HHD provides technical guidance to subordinate units on medical maintenance matters.

11-18. Maintenance on Equipment other than Vehicles, Power Generation and Medical

Maintenance in dental units is not limited to vehicles, power-generation equipment, and medical equipment. Other areas requiring PM and repair as needed are—weapons, communications equipment, NBC equipment, personal equipment, office equipment, and

quartermaster equipment such as tentage. However, dental unit organizational maintenance capability in these areas is generally limited to the operator or user level causing them to rely largely on DS activities. Direct support maintenance in all of these areas is provided by elements of the supporting COSCOM or TAACOM DS maintenance battalion.

11-19. Calibration

Numerous items of equipment in dental units require calibration. Included among these are tools, test equipment, and NBC monitoring devices. Calibration service for these is provided by elements of the supporting DS maintenance battalion. Calibration of the dental x-ray apparatus is provided by the MEDLOG battalion.

11-20. Materiel Readiness Reporting

Readiness of unit materiel status is a key factor in the commander's assessment of the overall unit readiness status. The DA Form 2406, prepared IAW AR 700-138, is the formal mechanism for reporting materiel readiness. The DA Form 2406 is also the basis for the materiel portion of the unit readiness report, DA Form 2715, prepared IAW AR 220-1. Within the TO, the day-to-day equipment status must be available to the commander as the basis for operational decisions. The dental battalion HHD monitors the day-to-day materiel readiness status of its subordinate units based on input received on the daily status reports. Likewise, medical companies (dental service) and medical detachments (dental service) require daily materiel status reports from their detached DTFs. A system for reporting materiel status must reincluded in the TSOP of dental units at all levels.

Section IV. HEALTH SERVICE SUPPORT

11-21. General

Health service support falls under the overall category of CSS. The inherent skills of dental officers and usual close location of dental units makes up for the lack of organic medical personnel in dental units. It is important, however, to have an understanding of the HSS system and how to access that system when the need arises.

11-22. Echelons I and II Medical Treatment

Echelons I and II treatment for nondivisional units (including dental units) lacking organic medical elements is provided by ASMBs assigned to medical groups within the COSCOM and medical brigades in the TAACOM. The ASMB provides routine health services (troop medical clinic care), emergency care, and evacuation on an area basis.

11-23. Hospitalization

Dental unit personnel who require hospitalization are evacuated from the ASMB MTF to the appropriate corps or COMMZ hospital. They are further evacuated to COMMZ or CONUS based hospitals with greater capability as required and consistent with the theater patient evacuation policy.

11-24. Inherent Medical Capability

By virtue of professional training and additional training in ATM, dental units are uniquely suited to handle a number of minor injuries and illnesses within the DTF. The greatest limitations are resources in the form of medical supplies and patient-holding capability. Dental personnel whose injuries or illnesses exceed the limited capabilities within the DTF should be evacuated to the ASMB.

APPENDIX A

DEPARTMENT OF DEFENSE DENTAL CLASSIFICATIONS

Extracted from DOD Instruction Number 6410.1, Subject: Standardization of Dental Classifications, November 8, 1990, implementation date, 1 March 1991. Dental patients shall be classified as follows:

a. Class 1. Patients not requiring dental treatment or reevaluation within 12 months.

(1) No dental caries or defective restorations.

(2) Arrested caries for which treatment is not indicated.

(3) Healthy periodontium, no bleeding on probing; oral prophylaxis not indicated.

(4) Replacement of missing teeth not indicated.

(5) Unerupted, partially erupted, or malposed teeth that are without historical, clinical, or radiographic signs or symptoms of pathosis and are not recommended for prophylactic removal.

(6) Absence of temporomandibular disorders; stable occlusion.

b. Class 2. Patients who have oral conditions that, if not treated or followed up, have the potential but are not expected to result in dental emergencies within 12 months.

(1) Treatment or follow up indicated for dental caries with minimal extension into dentin or minor defective restorations easily maintained by the patient where the condition does not cause definitive symptoms.

(2) Interim restorations or prostheses that can be maintained by the patient for a 12-month period. This includes teeth that have been restored with permanent restorative materials, but for which protective coverage is indicated.

(3) Edentulous areas requiring prostheses, but not on an immediate basis.

(4) Periodontal disease or periodontium exhibiting:

(a) Requirement for oral prophylaxis.

(b) Requirement for maintenance therapy; this includes stable or nonprogressive mucogingival conditions requiring periodic evaluation.

(c) Nonspecific gingivitis.

(d) Early or mild adult periodontitis.

(5) Unerupted, partially erupted, or malposed teeth that are without historical, clinical, or radiographic signs or symptoms of pathosis, but which are recommended for prophylactic removal.

(6) Active orthodontic treatment.

(7) Temporomandibular disorder patients in maintenance therapy.

c. Class 3. Patients who have oral conditions that if not treated are expected to result in dental emergencies within 12 months. Patients should be placed in Class 3 when there are questions in determining classification between Class 2 and Class 3.

(1) Dental caries, tooth fractures, or defective restorations where the condition extends beyond the dentinoenamel junction and causes definitive symptoms; dental caries with moderate or advanced extension into the dentin; and defective restorations not maintained by the patient.

(2) Interim restorations or prostheses that cannot be maintained for a 12-month period. This includes teeth that have been restored with permanent restorative materials, but for which protective coverage is indicated.

(3) Periodontal disease or periodontium exhibiting:

(a) Acute gingivitis or pericoronitis.

(b) Active moderate to advanced periodontitis.

(c) Periodontal abscess.

(d) Progressive mucogingival condition.

(e) Periodontal manifestations of systemic disease or hormonal disturbances.

(4) Edentulous areas or teeth requiring immediate prosthodontic treatment for adequate mastication, communication, or acceptable esthetics.

(5) Unerupted, partially erupted, or malposed teeth with historical, clinical, or radiographic signs or symptoms of pathosis that are recommended for removal.

(6) Chronic oral infections or other pathologic lesions.

(a) Pulpal or periapical pathology requiring treatment.

(b) Lesions requiring biopsy or awaiting biopsy report.

(7) Emergency situations requiring therapy to relieve pain, treat trauma, treat acute oral infections, or provide timely follow-up care (for example, drain or suture removal) until resolved.

(8) Temporomandibular disorders requiring active treatment.

d. Class 4. Patients who require dental examinations. This includes patients who require annual or other required dental examinations and patients whose dental classifications are unknown.

NOTE

Generally speaking, elimination of Class 3 conditions is the goal of sustaining dental care and establishment of a Class 1 condition is the goal of maintaining care.

APPENDIX B

QUALITY ASSURANCE

B-1. General

Quality assurance is an aspect of health care delivery which has received greatly increased visibility. In response, a dynamic system of continuous checks and balances has been implemented by The Surgeon General. This is the QA plan. The objectives of the plan are to—

- Deliver dental care consistent with the capabilities of the treatment facility and staff qualifications.
- Reduce risk-creating incidents for the patients treated.
- Improve provider-patient communication and patient satisfaction.
- Objectively evaluate practioner performance.

With respect to dental service, AR 40-68 addresses four major areas of interest: patient care evaluation, credentials/privileges, utilization management, and risk management. A detailed plan for implementation is also described.

B-2. Quality Assurance in the Theater of Operations

In dental units, the commander is responsible for the management of the unit's QA plan. Guidance and policy on QA matters comes from the technical/staff dental surgeon channels. As with other matters for which policy is stated in references directed at peacetime care and organizations, QA policy in AR 40-68 must be modified to fit the tactical situation. In any case, the *spirit of QA* must be addressed. The soldier in the TO has the same right to the highest possible quality of dental care, consistent with the tactical circumstances, as he would receive in a garrison dental facility. Establishment of a sound QA plan by dental commanders and staff dental surgeons at all levels helps to ensure that right.

B-3. Patient Care Evaluation

In the area of patient care evaluation, a system is required to evaluate the quality and appropriateness of care provided. This system should also ensure that appropriate dental treatment records are compiled and maintained. Periodic audit also aids the commander and staff dental surgeons in evaluating distribution of care and compliance with theater treatment policies regarding the type of care to be provided. Dental radiology, infection control, and barrier protection are areas which should be of special command interest in the field environment.

B-4. Credentials/Privileges

Credentials review and clinical privileging must be effective to maintain quality dental care. Credentials must be verified on all dental practitioners and decisions made for privileges to be granted as soon as possible after the individual joins the unit. Ideally, credentials and privileges should be established prior to the unit's deployment to the TO.

a. Practitioners Credentials File (PCF). When the size and situation of a dental unit permit, the commander may consider the establishment of a credentials committee for the purpose of monitoring, reviewing, and updating the PCF and making recommendations to the commander on issues requiring his attention. When formulation of a committee is not possible, credentialing is handled directly by the commander or the staff dental surgeon if appropriate.

b. Contents of the Practitioners Credentials File. Army Regulation 40-68 provides guidance on the establishment of the PCF. When the situation in the TO prevents full compliance, modifications may be necessary; however, every effort should be made to comply with the spirit and intent.

B-5. Utilization Management

a. The tactical situation dictates to a large degree the type and availability of dental care in the TO. However, the principle of utilization

management, providing the highest quality dental care possible in an efficient manner, should be a goal of the dental service support leadership in the TO.

b. Army Regulation 40-68 directs the dental utilization management program to review—

(1) Time management inpatient care.

(2) Patient waiting time.

(3) Number of patients treated per unit of practitioner's time.

(4) Equipment and facility management.

(5) Logistics management.

c. Application of these concepts by the dental treatment system in the theater will increase the mission accomplishment capability of the supported units. Emergency care will be rendered rapidly as far forward as possible, with the soldier patients RTD as soon as possible. Sustaining and maintaining care will be rendered at the convenience (to include location and time) of the supported units to improve their level of oral health and to minimize the number of dental emergencies.

B-6. Risk Management

a. The risk management program is concerned with the prevention of accident and injury. For dental support in the TO, it encompasses the reduction of risk to patients, visitors, and unit personnel.

b. Risk management in the TO includes investigating and reporting all significant adverse events. The primary reason for these reports is to reduce the potential for similar occurrences in the future. This is true whether the event delayed the soldier patient from returning to duty in his unit or injured an individual in the dental unit. Both would potentially affect the supported unit's mission accomplishment capability.

c. One of the main tenets of risk management is effective patient recordkeeping. Dental record maintenance in the TO will be difficult. There is a high probability that patients reporting for care, especially emergency patients, will not have their dental record available. This does not relieve the practitioner from the responsibility of ensuring that all necessary information is available and documented for him to perform the examination, derive the diagnosis, and record the treatment. If the patient is to be evacuated (either for the dental condition or some other medical condition), and the dental condition requires further care, it is imperative that these requirements be documented and evacuated with the patient.

B-7. Dental Radiology

a. Some of the major considerations for dental radiology QA in the TO are—

(1) All personnel operating dental x-ray units in the field should know and minimize the risks, to include—

(a) The proper way to set up and operate the equipment.

(b) The techniques of substituting distance for shielding during x-ray operations.

(c) Ensuring that exclusion areas are clear of all personnel prior to operation of the x-ray.

(d) The proper way to develop x-rays and the hazards of the materials used.

(2) All dental x-ray operators should have dosimeters (IM-9/PD) and these dosimeters must be handled and processed correctly.

(3) Radiographic information, including retakes, must be entered in the patient's records.

b. See Appendix C for additional information on dental radiology safety in the field.

APPENDIX C

SAFETY

C-1. General

Commanders and unit leaders at all levels are responsible for protecting and preserving Army personnel and equipment against injury, damage, or loss. This appendix discusses general safety (applicable to all units when in afield environment) and specific safety considerations for dental units. Functions of the Department of Defense (DOD) Federal Hazard Communication Training Program and the US Army Environmental Hygiene Agency (USAEHA) are also discussed.

C-2. Safety Policy and Program

An effective safety program is essential to any unit. Leaders must stress the importance of constant vigilance to detect potential hazards and reduce or eliminate these hazards.

a. Policy. The safety policy of the Army is to reduce and keep to a minimum accidental manpower (and monetary) losses, thus providing more efficient use of resources and advancing combat effectiveness.

b. Program. The unit safety program should be designed to cover all operations and take into consideration all conditions peculiar to the specific operation of the unit. Implementation of the program includes the establishment of a safety organization consisting of a unit safety officer responsible for the supervision and coordination of all unit safety activities, and other personnel as required to assist him (see AR 385-10).

C-3. Responsibility for Accident Prevention

a. Commander. The unit commander is responsible for ensuring that all activities of his unit are conducted IAW established safety rules for determining causes of accidents, and for seeing that corrective action is taken immediately to prevent their recurrence. He must be aware of and enforce all safety regulations promulgated by higher headquarters. If a deviation from an established safety rule is desired, it is his responsibility to request permission for the deviation. The unit commander appoints the unit safety officer (see AR 385-10).

b. Unit Safety Officer. The unit safety officer, with the concurrence of the commanding officer and within his guidelines, develops directives, policies, plans, and procedures for the safety program.

c. Supervisors. Supervision is a method of preventing accidents through continuous instruction and guidance in the development of good working habits. Supervisors are in a position to observe working conditions and the hazards to which operating personnel are exposed.

d. Individuals. All personnel should be made to realize that safety rule shave been established for their protection. It is their responsibility to follow all instructions and to use all safeguards when using equipment, machinery, and tools.

C-4. Principles of Accident Prevention

An effective safety program depends on the proper application of the following principles of accident prevention:

a. Stimulation of Interest. Emphasis on safety must be vigorous and continuous, and it must originate with the unit commander. Group discussions, safety meetings, bulletin board notices, posters, and recognition of individuals for participation create interest in the safety program.

b. Fact Finding. This refers to the assembly of information bearing upon the occurrence and prevention of accidents. For each accident, the following facts should be determined:

(1) Who was injured and what was damaged.

(2) The time and place where the accident or injury occurred.

(3) The severity and cost of the accident or injury.

(4) The nature of the accident or injury.

(5) Measures that can be instituted to guard against future recurrences.

c. Corrective Action Based on Facts. Any corrective action that is adopted should be based on available and pertinent facts surrounding the accident or injury. Near accidents also should be reported with all available information so that hazards and unsafe procedures or conditions can be eliminated. Similarly, any procedure or condition which might be dangerous should be reported so that remedial action can be instituted.

d. Applicability. Practicable safety controls should be provided in all planning, training, tactical operations, professional activities, and off-duty activities.

e. Safety Education and Training. The objectives of safety education and training are to develop the individual's safety awareness so he performs his tasks with minimal risk to himself and to others.

f. Inspections. The purpose of safety inspections is to eliminate the cause of accidents through specific, methodical procedures.

C-5. Safety Plan

Many items that can be included in any safety plan are listed below, but the list is neither all-inclusive nor restrictive. Certain conditions or geographical areas may require guidance to conform with those needs. Precautions for certain medical/dental procedures or equipment are included here.

a. Accident Reporting. Basic to any safety plan is accident reporting. A definite procedure should be established that emphasizes prompt and complete reporting of all accidents or injuries (AR *385-40).* The unit commander, or his designated representative, should investigate all accidents or injuries to determine the causes and take corrective action to prevent their recurrence. Any accident resulting in damage to equipment should be reported immediately. Continued operation of damaged equipment can subsequently result in injuries to personnel.

b. Safety Color Code Markings and Signs. Safety color code prescribes the use of color combinations that are effective in preventing accidents and in improving production, visual perception, and housekeeping. The code defines the application of colors for such specific purposes as the uniform markings of physical hazards, showing the location of safety equipment, identifying fire-fighting equipment, and designating colors to be used if local conditions warrant the use of color coding (AR 385-30).

c. Fire Prevention.

(1) A unit fire plan or fire SOP should be included in the safety program. It should contain fire prevention guidance and information on what to do if fire occurs.

(2) **NO SMOKING** signs should be posted wherever fire hazards exist. Smoking should be permitted only in designated safety areas. Fire-fighting equipment should be available and all personnel should be familiar with its location and operation. This equipment should be inspected frequently to determine if it is serviceable and operative. Fire drills should be conducted often enough for all personnel to be familiar with the procedures. Guard personnel should be alert to fire hazards at night. Gasoline, oil, paint, and other flammables should be stored in approved locations and in authorized containers. Oxygen and acetylene tanks must be stored separately and apart from other flammables (see paragraph C-10).

d. Generators. Generators in the field produce the same potential electrical hazards that are found with electricity at permanent installations and demand the same precautions. Personnel working around generators or electrical wiring should remove rings and watches. Generators should be grounded and not refueled while they are in operation. Generators used in dental treatment areas should be located to reduce, as much as possible, their noise in the operative area.

e. Housekeeping. Professional and administrative areas must be kept clean and orderly at all times. Hazards to personnel and equipment can be eliminated or controlled by enforcing high housekeeping standards.

f. Heaters. When heaters are used, they should be watched closely for potential tent fire. Spark arrestors or flue guards on stove exhaust pipes

and metal shields in stovepipe openings in tents should be used when heaters are in operation.

g. Vehicle Operation. Army Regulation 385-55 contains guidance on government vehicle operation.

h. Weapons and Ammunition. Continual command emphasis should be directed toward training each individual in the unit in the handling of weapons and ammunition. Training should begin when an individual joins the unit. Commanders should ensure that all medical/dental personnel are briefed on the handling of weapons which accompany patients to the treatment facility. Weapons of unit personnel should be cleared and placed on safety until required otherwise. Army Regulation 190-11 and FM 19-30 provide guidance on the physical security of weapons and ammunition.

C-6. Accident Investigation and Reporting

a. Investigations. Accident investigation is necessary for accident prevention. Investigation seeks to determine the cause of accidents by finding the elements and sources from which accidents develop. Corrective measures may then be instituted.

b. Reporting. In accordance with AR 385-40, the Army accident reporting system provides for the initial reporting of accidents at unit level. This is done to notify the higher echelon of command that a mishap has occurred; to record information that will identify causes and corrective actions, indicate trends, and provide a basis for formulating future plans; and to evaluate progress in accident prevention.

C-7. X-ray Protective Measures and Standards

a. General. Every possible safety precaution must be used when exposing radiographs. If all safety rules are strictly adhered to, dental personnel should receive virtually no radiation and the patient's exposure will be minimal.

b. Dental Personnel Protection and Standards.

(1) Radiation monitoring. Army Regulation 40-14 prescribes monitoring practices for Army personnel. It requires all x-ray technicians, or other personnel who are likely to take x-rays as part of their normal duties (dental specialists and dental officers), to wear a dosimeter or film badge. When deployed, the radiacmeter IM-9/PD is used to monitor the amount of whole body radiation received by individuals involved in x-ray operations.

(2) *Radiation standards.* For the personnel operating dental x-ray machines, the level of radiation must not ever exceed an accumulated whole body dose, in reins, of five times the number of years beyond age 18 (for example, the whole body dose for a 20-year-old person must be no more than 10 reins). Personnel should never receive more than 3 reins in any 3-month period. X-ray personnel dose monitoring records based on IM-9/PD readings should be maintained by the unit NBC NCO and incorporated into overall radiation exposure files (see Chapter 9).

(3) *Protective shielding.* Protective shielding available to dental units is limited to a lead apron for the patient and a portable lead-lined screen to protect the operator. Passive protective measures such as location and arrangement of the x-ray equipment will therefore play an important role. Fixed dental facilities use lead shielding to protect those working in the area where dental x-rays are taken. However, the potential of finding lead-lined facilities in a deployed environment is limited. Therefore, deployed units must use buildings of opportunity or assigned tentage.

(a) Buildings of opportunity.

• When using field dental x-ray apparatus in a building of opportunity, a major consideration is the location of a room or an isolated area where access can be easily controlled. This area should have at least one, preferably two, walls common to the building exterior. Adjoining rooms should be unoccupied.

• The x-ray apparatus should be positioned to maximize the distance from the back of the x-ray tube head to the operator. The apparatus should be positioned so that the x-ray beam will not routinely be directed toward occupied space or heavily traveled passageways.

- The unoccupied area outside the building should be cleared of personnel for at least 50 feet from the x-ray head. This exclusion area should include all potential areas toward which the x-ray beam may be directed. The 50-foot exclusion area fulfills the requirements of TB MED 521 for both the Siemens and the hand-held field x-rays.

(b) Tents. Field x-ray apparatus should be placed in a separate tent located on the outer perimeter with a minimum clear area of 50 feet (radius). This area should be marked off using engineer tape and radiation hazard signs IAW unit SOP. Prior to operating an x-ray in a tent, check to ensure no one is in the exclusion area.

(c) Lead shield. In both situations the portable lead-lined screen contained in the DES, x-ray, should be placed between the operator and the patient with the operator standing immediately behind the screen.

(4) *Patient protection.* Use all means available to reduce the patient's exposure to ionizing radiation. The following practices will help:

- Take only those x-rays that are required for diagnosis and treatment.
- Avoid wrong exposures, improper exposure techniques, and faulty film processing techniques.
- Use a lead apron for each exposure.
- Check the patient's medical history.
- Use the most sensitive emulsion film available.

(5) X-ray system, dental, miniature (hand-held x-ray). The hand-held x-ray is safe for dental personnel to hold during use if the following guidelines are followed:

- The operator must keep the radiation shielding ring flat against the skin of the patient's face.
- The operator must stand so that his body is in line with the long axis of the x-ray tube.

If these precautions are followed, the operator is exposed to less than 0.004 mR/exposure. Therefore, an operator should be able to make 1,250,000 exposures a year, keeping the annual rate below 5 rems. Even though this system actually exposes the patient to less radiation than other dental x-ray systems, an important consideration is an exclusion area beyond the patient as discussed above.

C-8. X-ray Processing

When working with film processing chemical, personnel will use protective eyewear, gloves, and aprons.

C-9. Hearing Conservation

a. Technical Bulletin Medical 501 provides the guidance on units' hearing conservation programs.

b. Units will contact the preventive medicine activity of the area medical support activity for identification of noise hazardous equipment, job sites, and exposed personnel. This will be accomplished by conducting noise level surveys on field dental equipment (that is, compressors, generators, dental hand pieces, field laboratory equipment, and military vehicles). These data will be used for planning and prioritizing screening tests for those individuals exposed in their work environment.

c. Personnel identified in this survey will be entered in the hearing conservation program and monitored by the medical unit for response to noise exposure and adequacy of hearing-protective devices by periodic testing of hearing levels. Audiograms will be conducted annually, as a minimum.

d. Hearing protection will be issued to all unit personnel, and its use will be required when operating or in proximity to generators, compressors, field laboratory equipment and tactical vehicles 2-1/2 tons and larger. Areas around this equipment should be indicated by placing NOISE HAZARDOUS AREA, HEARING PROTECTION REQUIRED signs as directed in the unit SOP.

C-10. Compressed Gas Cylinders

A1l compressed gas cylinders should be considered full for handling purposes. They should never be dropped or struck by any object. While cylinders are being transported in vehicles, they should be restrained to prevent them from falling. Cylinders must be protected from dampness and excessive temperatures. Smoking is prohibited within 50 feet of oxygen cylinders. Valve protection caps must be installed on each cylinder. Oxygen should be stored in areas separated from flammable gases or flammable liquids by at least 50 feet. Gases used in dental laboratory procedures require caution in handling.

C-11. Flammable or Explosive Materials

These materials must be kept in approved safety containers and away from Bunsen burners or heating elements. Acids used in dental laboratory procedures should be stored in proper containers and used with caution.

C-12. Special Equipment

Individuals using high speed dental units and those working in the dental laboratory should use plano cylinder or prescription safety eyewear to prevent injuries to their eyes.

C-13. Scrap Amalgam

Scrap dental amalgam should be kept under silver-free or fresh x-ray fixer.

C-14. Department of Defense Federal Hazard Communication Training Program

Department of Defense Instruction Number 6050.5, October 29, 1990, directed the elements of DOD to develop a training program to meet the requirements of the Occupational Safety and Health Act (OSHA) Hazard Communication Standard (29 C.F.R. 1910. 1200). The OSHA issued this standard to ensure everyone's right to work in a safe and healthful environment. It requires that everyone understand the hazards of the materials they work with and know how to minimize these hazards. It also lists all hazardous materials along with their specific hazards.

C-15. United States Army Environmental Hygiene Agency

The USAEHA has the mission of looking out for the soldiers' welfare worldwide. It is an excellent source for advice and assistance in areas related to environment quality or occupational health. Any official Army safety representative (for example, unit safety officer) can request assistance from the USAEHA. Potential areas for assistance include, but are not limited to-

- Technical assistance on monitoring the use of ionizing radiation, telephone DSN 584-3526.

- Tactical unit hazardous waste management on-site visits, DSN 584-3651.

- Dental safety program on-site visits, DSN 584-2241.

The USAEHA also provides document review services which may be of assistance in evaluating a unit safety program.

C-16. Infection Control

Special precautions must be taken during dental treatment procedures to avoid the transmission of infections. Infection control, to include biological waste disposal, is covered in detail in Chapter 3.

APPENDIX D

SAMPLE OUTLINE FOR A CLINICAL STANDING OPERATING PROCEDURE

D-1. General

Paragraph 3-14 of this manual discusses CSOPs and recommends that each established DTF have a CSOP. Unlike the TSOP, the CSOP discusses only that information relating to the operation of the DTF. The CSOP primarily covers policies and procedures. Policies are generally dictated through the dental technical chain and are not usually subject to a great deal of interpretation. Procedures selected for inclusion in the CSOP are those which best suit the needs of that particular DTF. As with the TSOP, there is no prescribed format for a CSOP; however, the information contained in the remainder of this appendix offers a suggested outline and format.

D-2. Publication Format

The best format for the CSOP is a loose-leaf binder arrangement. Clinical policies and procedures are subject to frequent change, and a loose-leaf arrangement is easily updated. It is also relatively inexpensive and easily produced in multiple copies at the unit level.

D-3. Organization

Annexes with supporting appendixes and tabs are easy to change and update; therefore, maximum use of annexes in a CSOP is advisable. The CSOP should be organized as follows:

- Directive.
- Table of contents.
- Record of changes and corrections.
- Annexes, appendixes, and tabs.

D-4. Directive

The directive should be the first page of the CSOP. The directive is the letter order signed by the DTF OIC which directs implementation of the CSOP. The directive should be on unit letterhead in memorandum format as shown below (Figure D-l).

SAMPLE FORMAT

OFFICE SYMBOL (MARKS NUMBER) DATE

MEMORANDUM FOR Personnel Assigned to the (DTF Designation) of the (Unit Designation)

SUBJECT: (DTF Designation) Clinical Standing Operating Procedure (CSOP)

1. PURPOSE: One sentence statement of purpose.

2. APPLICABILITY: DTF to which the CSOP applies.

3. GENERAL: Any administrative information concerning the CSOP deemed necessary such as the distribution of copies, where the CSOP is to be located, and the procedure for posting corrections and changes. The scope and content of this paragraph is a matter of preference; however, it should be of a length which allows the entire directive to be no more than a single page.

4. POINT OF CONTACT: Statement denoting which individual is the point of contact for recommendations for changes and other matters relating to the CSOP. Within the DTF, the most likely point of contact is the DTF OIC.

Figure D-1. Letter order which directs implementation of the CSOP.

D-5. Record of Changes and Corrections

Since information in the CSOP is subject to frequent change, include a page in the front of the binder to record changes and corrections. This allows the user and the DTF OIC to easily audit that particular copy of the CSOP. A single page formatted as follows will serve this purpose (Figure D-2).

SAMPLE FORMAT

RECORD OF CHANGES AND CORRECTIONS

(DTF Designation) of (Unit Designation) CSOP

NUMBER	DESCRIPTION	AUTHORITY	DATE	ENTERED BY
_____	_____	_____	____	_____
_____	_____	_____	____	_____
_____	_____	_____	____	_____
_____	_____	_____	____	_____

Figure D-2. Format for changes and corrections.

D-6. Annexes

Information in the CSOP is incorporated into annexes dealing with general areas. Annexes are supported by appendixes and tabs which deal with more specific issues. Information in annexes and supporting appendixes and tabs should not be redundant nor voluminous. However, there should be sufficient detail to ensure proper performance of the task addressed or compliance with the policy prescribed. As with the TSOP, annexes to the CSOP are directive and address who, what, where, when, and how. Annexes are attached in alphabetical order after the body of the table of contents, with appendixes (numerical) and tabs (alphabetical) following their supported annexes. Annexes are generally formatted in the same manner prescribed for the TSOP (see paragraph *E-7a);* however, as a matter of expediency and economy, some material may be incorporated as an appendix or tab in its original form simply by adding a tab or appendix designator. Some examples of this method are manufacturer's instruction manuals, military technical manuals, or written policy directives from higher headquarters.

D-7. Content

The information contained in annexes is variable and will depend on the type of unit and, of course, guidance and policy from the unit commander and his higher headquarters. The followings an outline of annexes, appendixes, and tabs recommended for inclusion in a generic CSOP.

• ANNEX A—Organization. A general statement of the mission and organization of the DTF.

• APPENDIX I—Dental Treatment Facility Layout. Line diagram of the suggested DTF layout similar to those in Chapter 3 of this manual.

• TABs-Vehicle Load Plans. Load plans for the DTF's personnel and equipment.

• APPENDIX 2—Personnel. Organization of personnel assigned to the DTF and delineation of duties.

- TABs—Duty Description. Detailed description of individual and special duties as necessary.

- ANNEX B—Equipment. Listing of equipment assigned to the DTF.

- APPENDIX l—Operation and Maintenance. Statement of DTF policy for equipment operation and operator maintenance.

- TABs—Individual Major Items. Manufacturer's operator manual or service technical manual, if available, for each major item of equipment to include vehicles and generators.

- APPENDIX 2—Maintenance Support Procedures. Prescribe procedure for obtaining maintenance support.

- ANNEX C—Supply.

- APPENDIX I—Class VIII Medical Supply. Statement of procedure for ordering, receiving, storing, and issuing Class VIII medical supplies.

- APPENDIX 2—Property Control. Hand receipt procedure for maintaining accountability of DTF TOE and CTA property.

- APPENDIX 3—Precious Metals Control, Procedure for control of precious metals and finished fixed prosthodontic cases, if appropriate.

- ANNEX D—Patient Care Operations.

- APPENDIX 1—Patient Treatment Policy. Statement of treatment policy to include priority of care, if appropriate.

- TABs-Policy letters from higher headquarters.

- APPENDIX 2—Patient Flow. Prescribe patient flow.

- APPENDIX 3—Patient Records. Prescribe procedure for preparation and maintenance of patient records.

- APPENDIX 4--Work Load Reporting. Prescribe procedure for work load data accountability and reporting.

- APPENDIX 5--X-Ray Operations. Prescribe procedure for x-ray operations.

- APPENDIX 6—Preventive Dentistry. Describe and define responsibilities for the DTF preventive dentistry program.

- APPENDIX 7—Prosthodontic Care. Prescribe procedure for provision of prosthodontic care, if appropriate.

- APPENDIX 8—Referrals. Prescribe procedure for referral and evacuation of patients for treatment available at other DTFs.

- ANNEX E—Contingency Operations.

- APPENDIX l—Reaction to Medical Emergency. Prescribe procedure to be followed in the event of a medical emergency.

- APPENDIX 2—Reaction to Enemy Action. Prescribe the DTF response in the event of enemy action, to include handling of patients within the DTF.

  - TAB A—NBC Response.

  - TAB B—Ground Attack.

  - TAB C—Air Attack.

- APPENDIX 3—Mass Casualty Response. Prescribe DTF responsibilities in the event of mass casualties.

- ANNEX F—Infection Control. Statement of required infection control procedures.

- APPENDIX l—Personal and Patient Protection. Prescribe procedure for protection of health care provider and patient.

- APPENDIX 2—Sterilization of Instruments.

- APPENDIX 3—Disposal of Infectious Waste.
- APPENDIX 4—Treatment of High-Risk Patients.
- ANNEX G—Relocation. Procedures for emplacement and displacement of the DTF.
- APPENDIX l—Dental Treatment Facility Setup.
- APPENDIX 2—Dental Treatment Facility Takedown.
- APPENDIX 3—Provision of Dental Treatment During Relocation. Prescribe procedure for provision of emergency dental treatment during relocation.
- ANNEX H-Safety. Statement of safety policies and procedures.
- APPENDIX l—X-Ray Safety.
- TAB A—Radiation Exposure Monitoring.
- APPENDIX 2—Fire Safety.
- APPENDIX 3—Hearing Conservation.
- APPENDIX 4--Hazardous Material Handling.
- ANNEX I—Physical Security. Statement of physical security plan for the DTF.

APPENDIX E

SUGGESTED FORMAT FOR A TACTICAL STANDING OPERATING PROCEDURE

E-1. General

Paragraph 4-5 of this manual discusses SOPs and states the requirement for dental units to have a TSOP. Field Manual 101-5 provides specific guidance on SOPs and should be referenced in development of the unit's TSOP. It is important to reemphasize that the TSOP of the parent unit is the most important source of guidance for the TSOPs of its subordinates. There is no prescribed format for a TSOP; however, the information contained in the remainder of this appendix offers a suggested format based on review of a number of dental unit TSOPs currently in use.

E-2. Publication Format

A number of possibilities exist for format of a TSOP. Three are listed below with advantages and disadvantages.

- *Loose-leaf binder* — least expensive and easily updated; however, requirement for faithfil update by users and potential for pages being lost through hard use is likely to produce a number of versions among the TSOP users.

- *Bound volume* — best method to maintain standardization of copies and easiest to handle and use; however, it is more expensive and subject to availability of a printing facility. It is also difficult to update.

- *Pocket-size bound volume* — easy to carry and a more ready-reference; however, more easily lost and more difficult to read. Otherwise, the same as a standard-size bound volume.

E-3. Contents

The TSOP should contain the following sections:

- Directive.
- Table of contents.
- Record of changes and corrections.
- General information.
- Annexes, appendixes, and tabs.
- Index.

The information contained in each of these sections, other than the table of contents which is self-explanatory, is variable and will depend on the type of unit and guidance contained in the TSOP of the higher headquarters.

E-4. Directive

The directive should be the first page of the TSOP. The directive is the letter order signed by the commander directing implementation of the TSOP. The directive should be in memorandum format (Figure E-l) on unit letterhead for distribution to subordinate units and elements to which the TSOP applies.

E-5. Record of Changes and Corrections

A good TSOP requires regular maintenance to ensure currency and relevance. A page which acts as a record of changes and corrections in the front of the book allows the user and the commander to easily audit that particular copy of the TSOP. A single page formatted as shown in Figure E-2 will serve this purpose.

SAMPLE FORMAT

OFFICE SYMBOL (MARKS NUMBER) DATE

MEMORANDUM FOR Personnel Assigned to (Unit Designation)

SUBJECT: (Unit Designation) Tactical Standing Operating Procedure (TSOP)

1. PURPOSE: One sentence statement of purpose.

2. APPLICABILITY: Statement of the unit's subordinate units and elements to which the TSOP applies.

3. GENERAL: Any administrative information concerning the TSOP deemed necessary such as distribution of copies, where TSOP is to be maintained, and procedure for posting corrections and changes. The scope and content of this paragraph is a matter of preference; however, it should be a length which allows the entire directive to be a single page.

4. POINT OF CONTACT: Statement of which individual is the point of contact for recommendation of change and other matters relating to the TSOP. In the medical company (dental service) and medical battalion (dental service), the most likely point of contact is the executive officer of that unit.

Figure E-1. Letter order which directs implementation of the TSOP.

SAMPLE FORMAT

RECORD OF CHANGES AND CORRECTIONS

(Unit Designation) TSOP

NUMBER	DESCRIPTION	AUTHORITY	DATE	ENTERED BY

Figure E-2. Format for changes and corrections.

E-6. General Information

This section constitutes the body of the TSOP. It should contain information of general application and concern to the subordinate units and elements covered by the TSOP. Length of this section is variable depending on the unit concerned. If relatively short, it may even be incorporated into the "General" paragraph of the directive. For most, however, this section will be fairly substantial.

a. Content. Content of the body of the TSOP should be limited to information of a general nature. Information concerning specialized situations and operations should be contained in annexes which will be discussed later. Again, content is variable; however, certain paragraphs should be included. They are-

- Mission. Statement of unit's mission.
- Organization. Organization of the unit and its subordinate units and elements.
- Chain of Command. Chain of command from subordinate to superior.

Additional areas may be covered in total in the body of the TSOP, amplified in annexes, or covered in total in annexes. Some of these areas are—

- Personnel and administration.
- Command, control and communication.
- Preparation of estimates, plans, and orders.
- Supply and maintenance.

b. Format. The format of the body of the TSOP should follow that of the directive, but need not be on letterhead. It should, however, be signed by the commander. The followings a recommended format for the body (Figure E-3).

SAMPLE FORMAT

(UNIT DESIGNATION)
TACTICAL STANDING OPERATING PROCEDURE

Section 1. GENERAL

1-1. Purpose. Restatement of purpose of TSOP worded exactly the same as in directive.

1-2. Applicability. Same as in directive.

Section 2. ORGANIZATION

2-1. Mission. Statement of unit mission.

2-2. Organization. Organization of unit and its subordinate units and elements.

Section 3. COMMAND AND STAFF

3-1. Chain of Command. Chain of command for unit and higher headquarters.

3-2. Staff Relationships. Coordinating and technical staff relationships.

Figure E-3. Recommended format for body of the TSOP.

SAMPLE FORMAT

3-3. Liaison. Liaison requirements with supporting and supported units if standardized.

Section 4. PERSONNEL AND ADMINISTRATION

4-1. Personnel and Administrative Support Chain. Chain of personnel and administrative support actions to include supporting units and agencies as well as unit responsibilities.

4-2. Required Personnel and Administrative Reports.

4-3. Specific Actions. Specific actions and functions such as awards, promotions, efficiency reports, chaplain support, and others may be covered here or in an annex.

Section 5. ESTIMATES, PLANS, AND ORDERS

5-1. Formats. Prescribe requirements and formats for estimates, plans and orders as necessary.

Section 6. LOGISTICS: SUPPLY AND MAINTENANCE

6-1. Logistics Support Chain. Chain for logistics support actions to include supporting units and agencies as well as unit responsibilities.

6-2. Required Logistics Reports

6-3. Specific Actions. Specific supply and maintenance actions and procedures may be covered here or in an annex.

Section 7. COMMAND, CONTROL, AND COMMUNICATION

7-1. Command Post Operations. Prescribe layout and operation of command post.

7-2. Communication Operations. Prescribe communication net and procedures.

7-3. Briefing Requirements. Prescribe briefing requirements and procedure.

7-4. Status Reports. Prescribe report requirements. Report formats may be covered in an annex.

SIGNATURE BLOCK
COMMANDER

ANNEXES:
A. Title
B. _____
Z. _____

Figure E-3. Recommended format for body of the TSOP (continued).

E-7. Annexes

Most information relating to a specific procedure or area is incorporated into an annex dealing with that specific subject. Annexes are in turn supported by appendixes and tabs, as necessary, to the appendixes. As with the entire TSOP, information should not be redundant or voluminous; nevertheless, it must provide necessary guidance in enough detail to perform the prescribed procedure. Annexes address who, what, where, when, and how. They do not address why. Annexes are attached in alphabetical order after the body of the TSOP. Appendixes are numbered and are attached immediately after their supported annex. Tabs are lettered and are attached immediately after their supported appendix.

a. Formats. Formats for annexes, appendixes, and tabs should be standardized throughout the TSOP. Annexes, appendixes, and tabs do not have signature blocks. Sample formats appear below (Figure E-4).

SAMPLE FORMAT

ANNEX (A-Z) TO THE (UNIT DESIGNATION) TSOP
(TITLE OF ANNEX)

1. PURPOSE: Succinct statement of purpose of the annex beginning with the word "to."

2. POLICY: Addresses who is responsible for the procedure and under what circumstances it is to be performed. Use of the action verb "will" provides directive force.

3. PROCEDURE: Detailed description of how the procedure(s) is to be performed.

Formats for appendixes and tabs are the same except for the title.

APPENDIX (NUMBER) TO ANNEX (LETTER) TO THE (UNIT) TSOP
(TITLE OF ANNEX)

TAB (LETTER) TO APPENDIX (NUMBER) TO ANNEX (LETTER) TO THE (UNIT) TSOP
(TITLE OF TAB)

Figure E-4. Sample formats for annexes, appendixes, and tabs.

b. Topics. Topics for annexes and their supporting appendixes and tabs depend on a number of factors. Those topics covered in the body of the TSOP need not be repeated unless amplification is required. Again, the TSOP of the parent headquarters is the best guide. Others to be considered are those topics specifically cited in this FM as being matters which should be included in the unit TSOP. Individual soldier tasks critical to unit operations and survival should also be considered for inclusion. Below is a listing of annexes and their supporting appendixes and tabs developed by a dental unit (Figure E-5). This particular unit's TSOP had a relatively brief body. In this sample format, the information which was suggested as being appropriate for the general section of the TSOP (see E-6 above) was covered in annexes.

SAMPLE FORMAT

ANNEX A - Personnel.

- APPENDIX 1 - Maintenance of Discipline, Law, and Order.
- APPENDIX 2 - Safety.
- APPENDIX 3 - Prescribed Uniform and Personal Equipment.

ANNEX B - Intelligence.

- APPENDIX 1 - Communications Security.
- APPENDIX 2 - Counterintelligence.
- APPENDIX 3 - Handling of EPWs, Captured Materiel, Documents, and Funds.
- APPENDIX 4 - Technical Intelligence.
- APPENDIX 5 - Emergency Evacuation/Destruction of Classified Material.

ANNEX C - Operations.

- APPENDIX 1 - Task Organization.
  - TAB A - Company Organization.
- APPENDIX 2 - Quartering Party.
- APPENDIX 3 - Company Movement.
  - TAB A - Convoy Commander Briefing.
  - TAB B - Movement Plan Checklist.
  - TAB C - En Route Actions.
  - TAB D - Area Establishment.
  - TAB E - Area Disestablishment.
  - TAB F - Vehicle Speeds and Intervals.
- APPENDIX 4 - Response to Attack.
  - TAB A - Air Defense and Weapons Status.
  - TAB B - Alarms.
- APPENDIX 5 - Perimeter Security.
  - TAB A - Fighting Positions.
  - TAB B - Challenge and Passwords.
- APPENDIX 6 - Command Post.
- APPENDIX 7 - Management of Mass Casualties.
  - TAB A - Priorities for Treatment and Evacuation.
  - TAB B - Combat Stress.
  - TAB C - Use of Dental X-ray Equipment in Mass Casualty Operations.
- APPENDIX 8 - Guard Mount.
- APPENDIX 9 - Weapons Security.
- APPENDIX 10 - Operations Security.
- APPENDIX 11 - Geneva Conventions.

Figure E-5. Sample listing of annexes and their supporting appendixes and tabs.

SAMPLE FORMAT

ANNEX D - Logistics.

APPENDIX 1 - Supply Procedures.
TAB A - Class I - Rations.
TAB B - Class II - Administrative and Personal Items.
TAB C - Class III - Petroleum, Oils and Lubricants.
TAB D - Class IV - Construction and Barrier Materials.
TAB E - Class V - Ammunition.
TAB F - Class VI - Sundries.
TAB G - Class VII - Major End Items.
TAB H - Class VIII - Medical Supply.
TAB I - Class IX - Repair Parts.
APPENDIX 2 - Services.
APPENDIX 3 - Transportation.
APPENDIX 4 - Medical Supply, Maintenance and Materiel Management.

ANNEX E - Civil Affairs.

ANNEX F - Communications.

APPENDIX 1 - Encryption and Decryption.
APPENDIX 2 - Maps and Overlays.
APPENDIX 3 - Communication Logs.

ANNEX G - Field Sanitation.

APPENDIX 1 - Responsibilities.
APPENDIX 2 - Water Sources.
APPENDIX 3 - Water Treatment.
APPENDIX 4 - Human Waste Disposal.
APPENDIX 5 - Handwashing Facilities.
APPENDIX 6 - Garbage Disposal.
APPENDIX 7 - Waste Water Disposal.
APPENDIX 8 - Infectious Waste Disposal - Solid.
APPENDIX 9 - Infectious Waste Disposal - Liquid.
APPENDIX 10 - Feeding Facility Sanitation.
APPENDIX 11 - Heat and Cold Injury Protection.
APPENDIX 12 - Insect and Vermin Protection.
APPENDIX 13 - Field Sanitation Equipment and Material Checklist.
APPENDIX 14 - Personal Clothing and Equipment.

ANNEX H - Environmental Protection.

Figure E-5. Sample listing of annexes and their supporting appendixes and tabs (continued).

SAMPLE FORMAT

ANNEX I - Training.

APPENDIX 1 - Mission Essential Task List.
APPENDIX 2 - Crisis Action Battle Drills.
TAB A - Automatic Masking.
TAB B - Ambush Reaction.
TAB C - Response to Chemical Attack.
TAB D - Response to Nuclear Attack.
TAB E - Response to Ground Attack.
TAB F - First Aid/Buddy Aid.
TAB G - Response to a Biological Attack.
APPENDIX 3 - Deliberate Actions.
TAB A - Cross a Radiologically Contaminated Area.
TAB B - Cross a Chemically Contaminated Area.
TAB C - Prepare for a Nuclear Attack.
TAB D - Prepare for a Chemical Attack.
TAB E - Prepare for a Biological Attack.

ANNEX J - Nuclear, Biological, and Chemical.

APPENDIX 1 - Unit Alarms and Warning Systems.
APPENDIX 2 - Nuclear, Biological, and Chemical First Aid.
APPENDIX 3 - Care and Maintenance of Protective Mask.
APPENDIX 4 - Extended Operations in a Contaminated Area.
APPENDIX 5 - Decontamination.
APPENDIX 6 - Marking of Contaminated Areas.
APPENDIX 7 - Mission-Oriented Protective Posture.
APPENDIX 8 - Chemical Survey and Monitoring.
APPENDIX 9 - Radiological Survey and Monitoring.
APPENDIX 10 - Radiation Exposure Guidance.
APPENDIX 11 - Nuclear, Biological, and Chemical Intelligence/Briefings.
APPENDIX 12 - Care and Maintenance of NBC Equipment.
APPENDIX 13 - Nuclear, Biological, and Chemical Supply Checklist and Procedure.

ANNEX K - Reports.

APPENDIX 1 - Feeder Reports.
TAB A - Personnel Status Report.
TAB B - Logistics Status Report.
TAB C - Sensitive Items Report.
TAB D - Major Equipment Status Report.
TAB E - Departure Report.
TAB F - Arrival Report.

Figure E-5. Sample listing of annexes and their supporting appendixes and tabs (continued).

SAMPLE FORMAT

TAB G - Commander's Situation Report.
TAB H - Dental Patient Report.
TAB I - Dental Work Load Report.
APPENDIX 2 - Intermittent Reports.
TAB A - Post Attack Status Report.
TAB B - Size, Activity, Location, Unit, Time, and Equipment Report.
TAB C - Situation Report.
TAB D - Medical Evacuation Request.
TAB E - Artillery Shell Report.
TAB F - Fire Support Request.
APPENDIX 3 - Nuclear, Biological, and Chemical Reports.
TAB A - Chemical Downwind Message.
TAB B - Effective Downwind Message.
TAB C - Observers Report (NBC 1).
TAB D - Evaluated Data (NBC 2).
TAB E - Immediate Warning of Contamination (NBC 3).
TAB F - Reconnaissance, Monitor, and Survey Report (NBC 4).
TAB G - Areas of Actual Contamination (NBC 5).
TAB H - Detailed Information on Strikes (NBC 6).
TAB I - Chemical Strike Warning.
TAB J - Nuclear Strike Warning.
TAB K - Radiation Status Chart.
TAB L - Chemical Survey Chart.
APPENDIX 4 - Mission After-Action Report.

Figure E-5. Sample listing of annexes and their supporting appendixes and tabs (continued).

E-8. Index

A well-constructed, comprehensive index of the material contained in the TSOP and its supporting annexes, appendixes, and tabs is a valuable complement to the TSOP. The addition of an index facilitates use of the TSOP, particularly its use as a ready reference.

GLOSSARY

ABBREVIATIONS, ACRONYMS, AND DEFINITIONS

AAR after-action report

ACR armored cavalry regiment

ADEC The ADEC Model 3406 is a portable operating and treatment unit

ADL area dental laboratory

AG Adjutant General

AIT advanced individual training

AMEDD Army Medical Department

AMEDDC&S US Army Medical Department Center and School

amp ampere; amperage

APO Army Post Office

ASMB area support medical battalion

ASMC area support medical company

ATM advanced trauma management

BCOC base cluster operations center

BCT basic combat training

BG brigadier general

BI battle injury

bn battalion

C4 Combat Casualty Care Course

C4A Combat Casualty Care Management Course

CA civil affairs

CANA convulsant antidote for nerve agent

co company

COL colonel

COMMZ communications zone

CONUS continental United States

COSCOM corps support command

CPR cardiopulmonary resuscitation

CPT captain

CSH combat support hospital

CSOP clinical standing operating procedure

CSS combat service support

CTA common table of allowances

CZ combat zone

DA Department of the Army

DCEP Dental Combat Effectiveness Program

DE directed energy

DEPMEDS Deployable Medical Systems

DES dental equipment sets

DISCOM division support command

DISE Distribution Illumination System, Electrical

DISS dental instrument and supply sets

DMS dental materiel sets

DNBI disease and nonbattle injury

DOD Department of Defense

DS direct support

DSN Defense Switching Network

DTF dental treatment facility

EAC echelons above corps

Echelons of Medical Care:

Echelon I (Level I). The first medical care a soldier receives is provided at this echelon. This care includes immediate lifesaving measures, DNBI prevention, combat stress control preventive measures, casualty collection, evacuation from supported unit to supporting MTF, and treatment provided by designated individuals or treatment squads. Echelon 1 elements are located throughout the CZ and COMMZ. These elements include self-aid/buddy aid, the combat lifesavers, the combat medics, and the physicians and physicians assistants.

Echelon II (Level II). Duplicates Echelon I and expands services available by adding dental, laboratory, x-ray, and patient holding capabilities. Emergency care (ATM), including beginning resuscitation procedures, is continued. (No general anesthesia is available.) If necessary, additional emergency measures are instituted; however, they do not go beyond the measures dictated by the immediate need. Those patients who can return to duty within 72 hours are held for treatment. The above functions are performed by medical companies organic to—

- Support battalions of separate maneuver brigades.
- Support squadrons of ACRs.
- Support battalions of DISCOMs.
- Medical companies of medical battalions (area support) (corps and COMMZ).

Echelon III (Level III). This echelon of care expands the support provided at Echelon II (division level). Care is provided for all categories of patients in an MTF with the proper staff and equipment. Patients who are unable to tolerate and survive movement over long distances will receive immediate surgical care in hospitals as close to the division rear boundary as the tactical situation will allow. Surgical care may be provided within the division area under certain operational conditions. Echelon III characterizes the care that is provided by units such as the MASH, CSH, and FH.

Echelon IV (Level IV). This echelon of care includes treating the patient in a GH or FH staffed and equipped for general and specialized medical and surgical care. The MASH, CSH, or medical company (holding) may also be deployed in the COMMZ to support rear operations contingencies. The FH provides hospitalization for general classes of patients and reconditioning and rehabilitative services for those patients who can return to duty within the theater evacuation policy. The majority of patients within this facility are in the reconditioning and rehabilitating category. The GH provides hospitalization and stabilization for general classes of patients. It serves as the primary conduit for patient evacuation to CONUS. (For additional information on the echelons of medical care, refer to FM 8-10.)

EFMB Expert Field Medical Badge

EPW enemy prisoner(s) of war

equip equipment

FAX facsimile

FH field hospital

1SG first sergeant

FM field manual; frequency-modulated

FRAGO fragmentary order

G1 Assistant Chief of Staff (Personnel)

G5 Assistant Chief of Staff (Civil Affairs)

GH general hospital

GS general support

HCA humanitarian and civic assistance

HHD headquarters and headquarters detachment

HN host nation

HSS health service support

HUB hospital unit, base

HUH hospital unit, holding

HUM hospital unit, medical

HUS hospital unit, surgical

IAW in accordance with

IV intravenous

J5 Plans and Policy Directorate

JAARS Joint After-Action Reporting System

kv kilovolt

kw kilowatt

LIC low-intensity conflict

LOC lines of communication (logistics routes)

LOI letter of instruction

LTC lieutenant colonel

ma milliampere

maint maintenance

MAJ major

MARKS Modern Army Recordkeeping System

MASH mobile Army surgical hospital

med medical

MEDCOM medical command

MEDLOG medical logistics

METL mission essential task list

MF2K Medical Force 2000

MMC Materiel Management Center

MMS medical materiel sets

MOPP mission-oriented protective posture

MOS military occupational specialty

mR milliroentgen

MS medical service (corps)

MSG master sergeant

MSR main supply route

MTF medical treatment facility

MTP mission training plan

NATO North Atlantic Treaty Organization

NBC nuclear, biological, and chemical

NBCWRS Nuclear, Biological, and Chemical Warning and Reporting System

NCO noncommissioned officer

NCOERS Noncommissioned Officer Evaluation Reporting System

NCOIC noncommissioned officer in charge

OERS Officer Evaluation Reporting System

OIC officer in charge (of)

OPCON operational control

OPLAN operation plan

OPORD operation order

OSHA Occupational Safety and Health Act/Administration

PAC personnel administration center

PACOM Pacific Command

Pam pamphlet

PB pyridostigmine bromide

PBO property book officer

PCF practitioners credentials file

PLL prescribed load list

PM preventive maintenance

POL petroleum, oils, and lubricants

PSS personnel service support

PX Army exchange

QA quality assurance

rep repairer

RTD return(ed) to duty

S1 Adjutant

S4 supply officer

SF standard form

SFC sergeant first class

SFG special forces group

SGM sergeant major

SGT sergeant

SIDPERS Standard Installation/Division Personnel System

SINCGARS Single Channel Ground and Airborne Radio Systems

SOP standing operating procedure

SPC specialist

S&S supply and service

SSG staff sergeant

STANAG standardization agreement

STP Soldier Training Publication

sup supply

TAACOM Theater Army Area Command

TAMMS The Army Maintenance Management System

TB technical bulletin

TB MED technical bulletin medical

TM technical manual

TO theater of operations

TOE table(s) of organization and equipment

TSOP tactical standing operating procedure

UCMJ Uniform Code of Military Justice

US United States

USAEHA United States Army Environmental Hygiene Agency