FM 4-02.10

THEATER HOSPITALIZATION

HEADQUARTERS, DEPARTMENT OF THE ARMY

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THEATER HOSPITALIZATION

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PREFACE

Hospitalization is one of the major Army Medical Department (AMEDD) functional areas. Under the Medical Force 2000 (MF2K) concept, theater hospitalization is provided by three hospitals, the combat support hospital (CSH), the field hospital (FH) and the general hospital (GH). These hospitals were designed and based upon the North Atlantic Treaty Organization (NATO) scenario and workloads. Current MF2K hospital doctrine is provided in Field Manual (FM) 8-10-14 for the CSH and FM 8-10-15 for the FH and the GH.

Under Force XXI and the medical reengineering initiative (MRI), theater hospitalization will be provided by a single CSH. The new CSH is designed based on lessons learned from Desert Shield/Desert Storm, recent contingency operations, and the requirements of the future warfight. Hospital size and bed mix, in particular, are based upon these experiences as well as the casualty rates, disease and nonbattle injury (DNBI) rates, and projected evacuation policy for the major regional conflict scenarios.

The purpose of this publication is to describe the new CSH and theater hospitalization to support a Force Projection Army into the 21st Century. It embodies doctrine based on the MRI and the A-edition Tables of Organization and Equipment (TOE) 08955A000 (corps CSH) and 08855A000 (echelon above corps [EAC]). The organizational structures presented in this publication reflect those established in the A-edition TOE in effect on the date of this publication. For a copy of your modified TOE (MTOE), contact the Authorizations Documentation Directorate, 9900 Belvoir Road, Suite 120, ATTN: MOFI-FMA, Fort Belvoir, Virginia 22060-2287.

As the AMEDD transitions to the 91W military occupational specialty (MOS), positions for 91B and 91C will be replaced by 91W when new unit MTOE take effect.

The use of the term *echelon of care* in this publication is synonymous with *level of care* and *role of care*. The term *echelon of care* is the old NATO term. The term *role of care* is the new NATO and American, British, Canadian, and Australian term.

This publication is designed for the hospital commander, his staff, and assigned personnel. The structural layout of the hospital is flexible and situationally determined (for example, mission requirements, commander's guidance, and terrain features). It requires intensive prior planning and training of all personnel to establish the facility.

Users should be familiar with FM 100-5 and FM 100-10.

The proponent of this publication is the United States (US) Army Medical Department Center and School (AMEDDC&S). Users of this publication are encouraged to submit comments and recommendations to improve the publication. Comments should include the page, paragraph, and line(s) of the text where the change is recommended. Comments and recommendations should be forwarded directly to **Commander, AMEDDC&S, ATTN: MCCS-FCD-L, 1400 East Grayson Street, Fort Sam Houston, Texas 78234-6175**, or by using the E-mail addresses on the Doctrine Literature website at http://dcdd.amedd.army.mil (click on Doctrine Literature).

This publication implements the following NATO International Standardization Agreements (STANAG):

STANAG	TITLE
2068	Emergency War Surgery (Edition 4) (Amendment 3)
2931	Orders for the Camouflage of the Red Cross and Red Crescent on Land in Tactical Operations

Unless this publication states otherwise, masculine nouns and pronouns do not refer exclusively to men.

Use of trade or brand names in this publication is for illustrative purposes only and does not imply endorsement by the Department of Defense (DOD).

CHAPTER 1

HOSPITALIZATION SYSTEM IN A THEATER OF OPERATIONS

1-1. Combat Health Support in a Theater of Operations

a. A theater of operations (TO) is that portion of an area of war necessary for military operations and for the administration of such operations. The scenario depicts the size of the TO and the US forces to be deployed. The theater is normally divided into a combat zone (CZ) and a communications zone (COMMZ). The CZ begins at the Army/corps rear boundary and extends forward to the extent of the commander's area of influence. The COMMZ begins at the corps rear boundary and extends rearward to include the area(s) needed to provide support to the forces in the CZ. In some instances, the COMMZ may be outside the TO and located in offshore support facilities, third country support bases, or in the continental United States (CONUS).

b. Combat health support (CHS) for the Army component in a TO is the Army Service Component Command (ASCC) commander's responsibility.

c. The medical command (MEDCOM) commander or the senior medical commander in the theater functions as the Assistant Chief of Staff for Medicine (ACSMED) for the ASCC. As the ACSMED, he provides information, recommendations, and professional medical advice to the ASCC commander and special staffs. He also maintains current data regarding the status, capabilities, and requirements for CHS. As the ACSMED, he is responsible to the ASCC commander for staff planning and coordinating and developing policies for CHS of the theater Army forces.

d. The mission of the AMEDD is to conserve the fighting strength. This mission of CHS is a continuous and integrated function throughout the TO. It extends from the CZ back through the COMMZ and ends in CONUS. Combat health support maximizes the system's ability to maintain presence with the supported soldier, to return injured, sick, and wounded soldiers to duty, and to clear the battlefield of soldiers who cannot return to duty (RTD). Patients are examined, treated, and identified as RTD or nonreturn to duty (NRTD) as far forward as is medically possible. Early identification is performed by the treating primary care provider and continues in the evacuation chain with constant reassessment. Patients requiring evacuation out of the division who are expected to RTD within the theater evacuation policy are evacuated to a corps and/or COMMZ hospital. Those patients classified as NRTD follow the evacuation chain for evacuation out of the theater.

e. The CHS system is a continuum from the forward edge of the battle area through the CONUS sustainment base. It is a system that provides medical management throughout all echelons of care. The challenge is to simultaneously provide medical support to deploying forces; provide health care services to the CONUS base; and establish a CHS system within the theater. Additionally, there will be a requirement to provide medical support to redeployment and demobilization operations at the conclusion of military combat operations. Furthermore, CHS requirements will surface in support of stability operations and support operations. The basic tenets of CHS for a Force Projection Army involve strict adherence to Army medical battlefield rules. These battlefield rules provide the basis for the development of medical organizations and force structure. Table 1-1 lists these rules in order of precedence.

Table 1-1. Army Medical Battlefield Rules

BE THERE (MAINTAIN A MEDICAL PRESENCE WITH THE SOLDIER)
MAINTAIN THE HEALTH OF THE COMMAND
SAVE LIVES
CLEAR THE BATTLEFIELD OF CASUALTIES
PROVIDE STATE OF THE ART MEDICAL CARE
ENSURE EARLY RETURN TO DUTY OF THE SOLDIER

1-2. Principles of Combat Health Support

a. Conformity. Conformity with the theater plan is the most fundamental element for effectively providing CHS. Only by participating in the development of this operation plan (OPLAN) can the medical planner ensure adequate CHS at the right time and at the right place.

b. Continuity. Combat health support must be continuous since an interruption of treatment may cause an increase in morbidity and mortality. Procedures are standardized at each organizational level to ensure that all required medical treatment is accomplished. No patient is evacuated any farther to the rear than his physical condition or the military situation requires. In the COMMZ, patients are not evacuated to the CONUS support base if they can be returned to duty within the provisions of the theater evacuation policy.

c. Control. Control of medical resources must rest with the medical commander. Combat health support staff officers must be proactive and keep their commanders apprised of the impact of future operations on CHS assets. The medical commander must ensure that the CHS system is responsive to the requirements of the theater. He must be able to tailor his CHS resources and direct them to focal points of demand throughout the area of operations (AO). Since CHS resources are limited, it is essential that their control be retained at the highest CHS level consistent with the tactical situation.

d. Proximity. In the CZ, the location of CHS assets in support of combat operations is dictated by the tactical situation (mission, enemy, terrain, troops, time available, and civilian considerations [METT-TC] factors) and the availability of evacuation resources. In the COMMZ, the hospitals should be located to facilitate access to medical evacuation resources (Army, United States Air Force [USAF], and Navy, if available), host-nation (HN) rehabilitation resources (if applicable), and command and control (C2) facilities.

e. Flexibility. A change in tactical plans or operations may require redistribution or relocation of medical resources. No more medical resources should be committed nor medical treatment facilities (MTFs) established than are required to support the expected patient densities.

f. Mobility. Mobility is measured by the extent to which a unit can move its personnel and equipment with organic transportation. When totally committed to patient care, the CSH can retain its

limited mobility only by immediate patient evacuation. The hospital's limited mobility severely restricts its capability to relocate assigned personnel and equipment. Transportation support organizations should recognize the relocation requirements for these facilities. Each hospital must have contingency plans to affect a move should one be required; they should routinely do those administrative measures that will enhance the facilities' ability to move. For example, load plans must be developed, maintained, and updated as necessary to ensure that all necessary equipment and supplies are included in the move. Transportation requirements that exceed the hospital's capability should be identified and coordinated with the supporting transportation element.

1-3. Echelons of Combat Health Support

The CHS system is organized into five echelons of support. The TO is normally organized into four echelons of support that extend rearward throughout the theater. The fifth echelon is located in CONUS. In the TO, CHS is tailored and phased to enhance patient acquisition, treatment, evacuation, and RTD as far forward as the tactical situation will permit. Hospital resources located at Echelons III and IV will be employed on an area basis to provide the utmost benefit to the maximum number of personnel in the AO. Wounded, sick, or injured soldiers will normally be treated, returned to duty, and/or evacuated to CONUS (Echelon V) through the theater's four echelons.

a. Echelon I. Care is provided by designated individuals or elements organic to combat and combat support (CS) units and elements of the area support medical battalion (ASMB). Major emphasis is placed on those measures necessary to stabilize the patient (maintain airway, stop bleeding, and prevent shock) and allow for evacuation to the next echelon of care.

(1) *Trauma specialist.* The trauma specialist (formerly referred to as the combat medic) is the first individual in the CHS chain who makes medically substantiated decisions based on medical MOS-specific training. First-aid providers in the form of self-aid, buddy aid, and the combat lifesaver support the trauma specialist.

(*a*) *Self-aid and buddy aid.* The individual soldier is trained to be proficient in a variety of specific first-aid procedures with particular emphasis on lifesaving tasks. This training enables the soldier, or a buddy, to apply immediate care to alleviate a life-threatening situation.

(*b*) *Combat lifesaver.* Enhanced first-aid training is provided to selected individuals who are called combat lifesavers. These individuals are nonmedical unit members selected by their commander for additional training to be proficient in a variety of first-aid procedures. A minimum of one individual per squad, crew, team, or equivalent-sized unit is trained per Army Regulation (AR) 350-41. All combat units and some CS and combat service support (CSS) units have combat lifesavers. The primary duty of these individuals does not change. The additional duties of combat lifesavers are performed when the tactical situation permits. They provide enhanced first-aid care for injuries prior to treatment by the trauma specialist. Medical personnel assigned or attached to the unit normally provide the training. A senior medical person designated by the commander manages the training program. Those units without qualifying medical personnel will request training instructor support from the next higher command surgeon or local MTF.

(2) *Treatment squad*. The treatment squad consists of a field surgeon, a physician assistant (PA), two noncommissioned officers (NCOs), and four medical specialists. The personnel are trained and equipped to provide advanced trauma management (ATM) to the battlefield casualty. Advanced trauma management is emergency care designed to resuscitate and stabilize the patient for evacuation to the next echelon of care. Each squad can split into two trauma treatment teams. These squads are organic to medical platoons/sections in maneuver battalions and designated CS units and medical companies of separate brigades, divisions, and echelons above division in the ASMB. When not engaged in ATM, these elements provide routine sick call services on an area basis. Echelon I care for units not having organic Echelon I capability is provided on an area basis by the responsible organization in the AO.

b. *Echelon II*. Care at this echelon is rendered at the clearing station (division or corps) and the forward surgical team (FST).

(1) At the clearing station, the casualty is examined and his wounds and general status are evaluated to determine his treatment and evacuation precedences, as a single casualty among other casualties. Those patients who can RTD within 1 to 3 days are held for treatment. Emergency medical treatment (EMT) (including beginning resuscitation) is continued and, if necessary, additional emergency measures are instituted; but they do not go beyond the measures dictated by the immediate necessities. The division clearing station has blood replacement capability, limited x-ray and laboratory services, patient-holding capability, and emergency dental care. Clearing stations provide Echelon I CHS functions on an area basis to those units without organic medical elements.

(2) The FST is a corps augmentation for divisional and nondivisional medical companies. The FST provides emergency/urgent initial surgery and nursing care after surgery for the critically wounded/ injured patient until he is sufficiently stable for evacuation to a corps hospital. The FSTs not organic to divisions and regiments will be assigned to a medical command or medical brigade and normally attached to a corps hospital when not operationally employed. The FST will be further attached for support to a divisional/nondivisional medical unit. For a detailed discussion on the FST, refer to FM 8-10-25.

(3) Division-level CHS also includes preventive medicine (PVNTMED) activities and mental health, performed by personnel in the organic medical companies of the brigades, divisions, and ASMBs. These are augmented by teams from corps-level PVNTMED and combat stress control (CSC) detachments or companies.

c. *Echelon III*. The first hospital facility, the corps CSH, is located at this echelon. The CSH is staffed and equipped to provide resuscitation, initial wound surgery, and postoperative treatment. Patients are stabilized for continued evacuation or returned to duty. Those patients who are expected to RTD within the theater evacuation policy will be regulated to an EAC CSH.

d. *Echelon IV*. At this echelon, the patient will be treated at the CSH (EAC). Those patients not expected to RTD within the theater evacuation policy are stabilized and evacuated to the CONUS.

e. *Echelon V*. This echelon of care is provided in the CONUS. Hospitals in the CONUS sustaining base will provide the ultimate treatment capability for patients generated within the theater. Department of Defense hospitals (military hospitals of the tri-services) and Department of Veterans Affairs

(DVA) hospitals will be specifically designated to provide the soldier with maximum return of function through a combination of medical, surgical, rehabilitative, and convalescent care. Under the National Disaster Medical System, patients overflowing DOD and DVA hospitals will be cared for in designated civilian hospitals.

1-4. Medical Evacuation and Medical Regulating

a. Definition.

(1) Medical evacuation is the timely, efficient movement and en route care provided by medical personnel of wounded, injured, and ill soldiers from the battlefield or other locations within the TO. Evacuation begins when medical personnel receive the injured or ill soldier and continues as far rearward as the patient's medical condition warrants or the tactical situation allows. The higher echelon is responsible for arranging for the evacuation of patients from the lower echelon of care.

(2) Medical regulating entails identifying the patients awaiting evacuation, locating the available beds, and coordinating the transportation means for movement. Careful control of patient evacuation to the appropriate hospital is necessary to—

- Effect an even distribution of cases.
- Ensure adequate beds are available for current and anticipated needs.
- Route patients requiring specialized treatment to the appropriate MTF.

b. Theater Evacuation Policy.

(1) The theater evacuation policy is established by the Secretary of Defense with the advice of the Joint Chiefs of Staff and upon the recommendation of the theater commander. The policy establishes, in the number of days, the maximum period of noneffectiveness (hospitalization and convalescence) that patients may be held within the TO for treatment. This policy does not mean that a patient is held in the TO for the entire period of noneffectiveness. A patient who is not expected to be ready to RTD within the number of days established in the theater evacuation policy is evacuated to the CONUS or some other safe haven. This is done providing that the treating physician determines that such evacuation will not aggravate the patient's disabilities or medical condition.

(2) To the degree that an unplanned increase in patients occurs (due perhaps to an epidemic or heavy combat casualties), a temporary reduction in the policy may be necessary. This reduction is used to adjust the volume of patients to be held in the TO hospital system. A reduction in the evacuation policy increases the number of patients requiring out-of-theater evacuation, and it increases the requirement for evacuation assets. This action is necessary to relieve the congestion caused by the patient increases. A decrease in the theater evacuation policy decreases the hospitalization requirements.

(3) The time period established in the theater evacuation policy starts on the date the patient is admitted to the first hospital (CZ or COMMZ). The total time a patient is hospitalized in the TO

(including transit time between MTFs) for a single, uninterrupted episode of illness or injury should not exceed the number of days stated in the theater evacuation policy. Though guided by the evacuation policy, the actual selection of a patient for evacuation is based on clinical judgement as to the patient's ability to tolerate and survive the movement to the next level of CHS.

1-5. Theater Hospital System

The theater hospital system consists of a single CSH structure; a medical detachment, minimal care; a medical detachment, telemedicine; two hospital augmentation teams; three medical teams; and an FST.

- *Combat Support Hospital*. Corps and EAC CSHs provide definitive care and CHS to all patients who will either be returned to duty or stabilized for evacuation out of the corps or theater. Theater hospitalization is discussed in detail in the remaining contents of this publication.

- *Medical Detachment, Minimal Care*. See Appendix A.

- *Medical Detachment, Telemedicine*. See Appendix B.

- *Hospital Augmentation Team, Head and Neck*. See Appendix C.

- *Hospital Augmentation Team, Special Care*. See Appendix D.

- *Medical Team, Pathology*. See Appendix E.

- *Medical Team, Renal Hemodialysis*. See Appendix F.

- *Medical Team, Infectious Disease*. See Appendix G.

- *Forward Surgical Team*. See FM 8-10-25.

CHAPTER 2

THE COMBAT SUPPORT HOSPITAL

2-1. Mission

The mission of the CSH is to provide hospitalization and outpatient services for all classes of patients within the theater.

2-2. Allocation

a. Corps. This hospital supports the requirement for all intensive care and intermediate care bed requirements (75 percent of the total bed requirements). To support the minimal care bed requirements (remaining 25 percent), the minimal care detachment, TOE 08949A000, must be added to the hospital.

b. Echelon Above Corps. This hospital supports the requirement for all intensive care and intermediate care bed requirements (50 percent of the total bed requirements). To support the minimal care bed requirements (remaining 50 percent), the minimal care detachment, TOE 08949A000, must be added to the hospital.

2-3. Assignment and Capabilities

a. The CSH will normally be assigned to a Medical Brigade (Corps, TOE 08-422A100 or EAC, TOE 08422A200), but may be assigned to a MEDCOM (Corps, TOE 08411A000 or Theater, TOE 08611A000) or a joint/combined task force.

b. The CSH provides hospitalization for up to 248 patients. It provides treatment for all classes of patients.

c. Surgical capacity is based on six operating room (OR) tables staffed for 96 operating table hours per day. The six OR tables are contained in three OR International Organization for Standardization (ISO) shelters. Surgical capabilities include general, orthopedic, thoracic, urological, gynecological, and oral maxillofacial.

d. An ISO tactical shelter is used for C-arm fluoroscopy capability. It will also be used for the operating microscope of the hospital augmentation team, head and neck when attached. The C-arm will be assigned to the 164-bed hospital company.

e. Other capabilities include—

- Command and control of organic and attached elements to include CHS planning, policies, and support operations within the hospital's areas of responsibility.
- Emergency treatment to receive, triage, and resuscitate casualties.
- Consultation services for inpatients and outpatients to include unit-level support.

- Pharmacy, psychiatry, community health nursing, clinical laboratory, blood banking, radiology, physical therapy, and nutrition care services.

- Medical administrative and logistical services.

- Routine and emergency dental treatment to staff and patients.

f. There are some differences between the corps CSH and the EAC CSH. The corps CSH will have split-based capability, whereas the EAC CSH will not (see Chapter 4). In the corps CSH, the 84-bed and 164-bed hospital companies with their headquarters and headquarters detachments (HHDs) are completely functional hospital companies. In the EAC CSH, the 84-bed hospital company with its HHD is a functional hospital company; the 164-bed hospital company is not a functional element. The EAC 164-bed hospital company can augment the EAC 84-bed company with an additional OR, intensive care unit (ICU), intermediate care ward (ICW), and dental capabilities. The supply and services and the mobility of the EAC CSH is reduced. Also, the EAC CSH has no laundry service capability. Other differences between the corps and the EAC 84-bed and 164-bed companies are shown in Figures 2-4 through 2-7.

2-4. Hospital Support Requirements

a. In deployment and sustainment of operations, the corps/EAC CSH is dependent upon appropriate elements of the MEDCOM or brigade, corps, or theater Army for—

- Personnel administrative services.

- Finance.

- Mortuary affairs (MA).

- Legal services.

- Transportation services. Transportation support will be required for both the corps and EAC hospitals. The corps CSH is 35 percent mobile with organic assets. The EAC CSH has no mobile capability but has limited vehicles for administrative support.

- Laundry and bath services. The corps CSH will require laundry services for other than patient-related linens and bath services. The EAC CSH requires full laundry and bath services.

- Security and enemy prisoner of war (EPW) security during processing and evacuation.

- Transportation and re-equipping for RTD personnel, to include individual clothing and equipment, seasonal outer garments, and chemical protection garments.

- Class I supplies (rations) to include the Medical Diet Supplement required for patient feeding.

b. During deployment and sustainment of operations, engineer support is required for establishment or modification of the hospital site and to construct or modify waste disposal areas (see Training Circular [TC] 8-13).

c. During sustainment of operations—

- Coordination with and assistance from veterinary service units may be required for zoonotic disease control and investigation; inspection of medical and nonmedical rations, to include suspected contaminated rations and disposition recommendations; inspection and procurement of bottled water for consumption by US forces; and investigation of animal bites.

- Coordination with and assistance from PVNTMED units may be required for food facility inspection, vector control, water production and distribution, field sanitation, wet-bulb globe temperatures, and control of medical and nonmedical waste.

- Coordination with and assistance from CSC units may be required for preventive stress control measures for hospital staff and patients which exceed the capability of the organic psychiatric and unit ministry assets, or to staff an inpatient psychiatric ward.

2-5. Hospital Organization and Functions

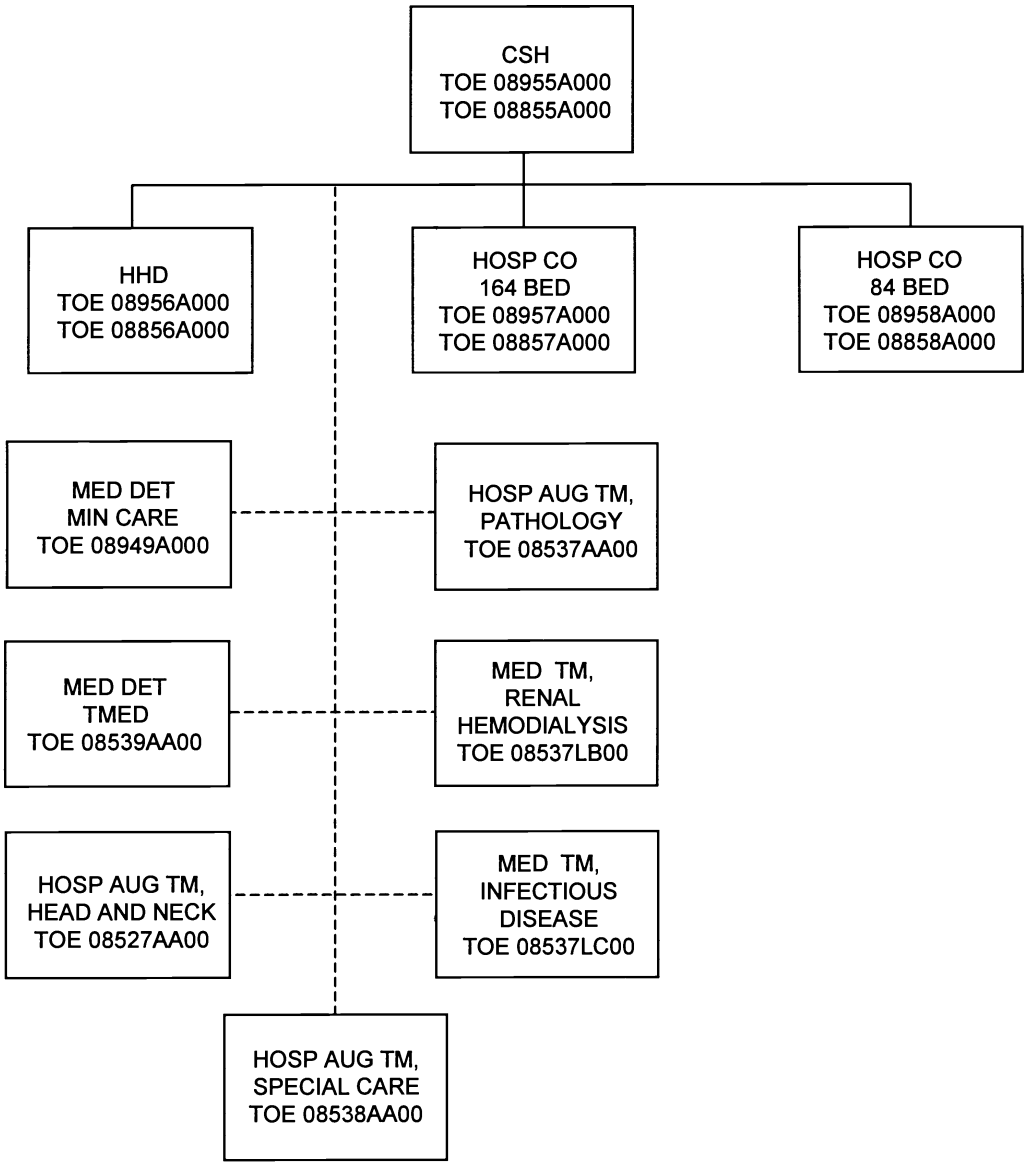
The CSH (corps and EAC) is a modular-designed facility that consists of a HHD and two hospital companies (one 84-bed hospital company and one 164-bed hospital company). (Note the difference of the two CSHs as stated in paragraph 2-3*f*.) Each CSH can be further augmented with medical detachments, hospital augmentation teams, and medical teams to increase its capabilities (Figure 2-1).

2-6. Headquarters and Headquarters Detachment

a. The HHD provides C2 of all organic/attached units, to include medical planning, policies, and support operations within the CSH's AO. The HHD is dependent upon other support units in the corps/ EAC and will be located where elements of these support units can provide support. Figure 2-2 (page 2-5) and Figure 2-3 (page 2-6) show the corps and EAC HHD organization.

b. The HHD (TOE 08956A000) of the corps CSH will augment the 84-bed hospital company (TOE 08958A000) for split-base operations. The Adjutant (US Army) (S1), Intelligence Officer (US Army) (S2)/Operations and Training Officer (US Army) (S3), and Supply Officer (US Army) (S4) sections of this HHD are staffed to allow for deployment of functional increments during split-based deployment. For a further discussion on split-base operations, see Chapter 4 and Appendix H.

c. The HHD (TOE 08856A000) of EAC CSH will augment the 84-bed hospital company (TOE 08858A000) for stand-alone capability. The EAC CSH has no split base capability.



NOTE: DEPENDING UPON OPERATIONAL REQUIREMENTS, MEDICAL DETACHMENTS, HOSPITAL AUGMENTATION TEAMS, AND MEDICAL TEAMS MAY OR MAY NOT BE ATTACHED TO THE INDIVIDUAL CLINICAL ELEMENT OF THE CSH.

Figure 2-1. Combat support hospital organization.

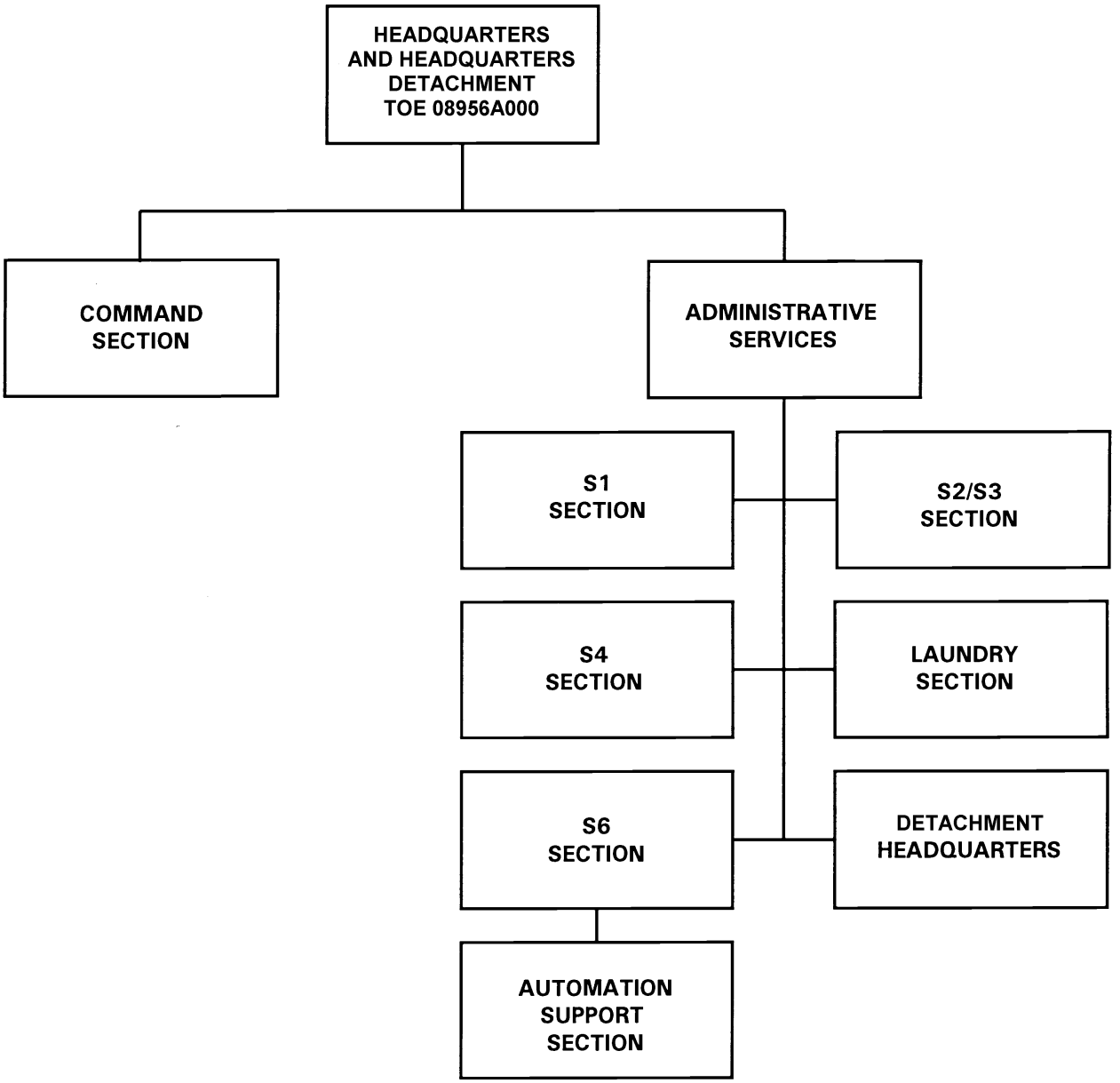


Figure 2-2. Corps headquarters and headquarters detachment organization.

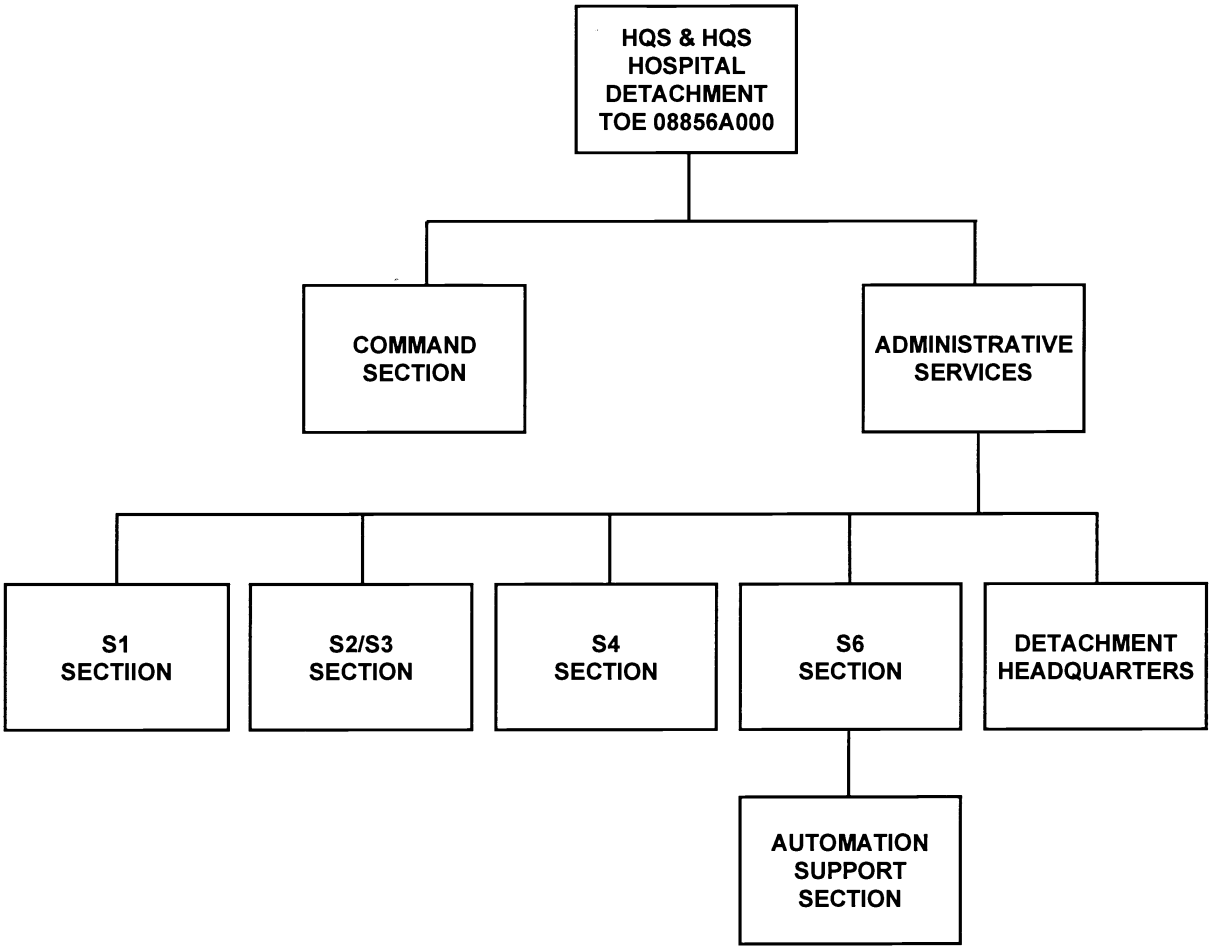


Figure 2-3. Echelon above corps headquarters and headquarters detachment organization.

d. The methods of operation and functions by paragraph for the HHD corps and EAC are provided below.

(1) *Command section.* The command section provides internal C2 and management of the hospital. It provides administrative support, prepares unit plans for movement, routine and specialized operations, and mission-related task organization. Personnel of this section supervise and coordinate surgical, nursing, medical, pastoral, operations, information management/communications, logistical, and administrative services of the HHD and the hospital, when consolidated. When deployed with the 84-bed hospital company, these personnel will augment the surgical, nursing, pastoral, administrative, and operation services. The chiefs of surgical and nursing services are advanced trauma life support (ATLS®) trained. The Chief, Surgical Service also functions as the Deputy Commander for Professional Services. The Chief,

Nursing Service is the principal advisor to the hospital commander for nursing activities. All operation element functions will be under the direct supervision of the Deputy Commander for Operations and Administrative Services (this officer will also function as the hospital executive officer [XO]). This section is found in both the corps and EAC HHD. The hospital adjutant is located in the corps HHD, but not the EAC HHD. In the EAC, the adjutant is located in the S1 section.

(2) *Administrative (S1) section*. This section provides overall administrative services for the hospital, to include personnel administration, mail distribution, awards and decorations, leaves, and typing support. This section coordinates with elements of the corps and EAC for finance, personnel, and administrative services. This section is found in both the corps and EAC HHD. As stated above, the hospital adjutant for the EAC CSH is located here.

(3) *Hospital operations (S2/S3) section*. This section is responsible for plans, operations, security, deployment, and relocation of the hospital. It uses automated tools for movement control and terrain analysis for unit lay down and security plans. It provides the commander with the necessary summary data to facilitate course of action analysis, resource management, and planning. This section is located in both the corps and EAC HHD.

(4) *Supply (S4) section*.

(*a*) The S4 section serves as the focal point for coordination/communication with other general logistics supply and service units. It provides logistics functions throughout the hospital, to include general and medical supplies and maintenance; blood management; utilities such as water distribution, waste disposal, and environmental control of patient treatment areas; power and vehicle maintenance; and equipment records and repair parts and fuel distribution. This section coordinates with corps/theater elements for materiel handling equipment (MHE) for movement of the hospital's Deployable Medical System (DEPMEDS) equipment, environmental control units, and power distribution equipment. This section is located in both the corps and EAC HHD.

(*b*) This section requests resupply from the supporting medical logistics (MEDLOG) battalion and corps/theater elements, using the Theater Army Medical Management Information System (TAMMIS) Medical Supply (MEDSUP), or the TAMMIS Medical Assemblage Management (MEDASM) and/or the MEDLOG-Division (MEDLOG-D) via the mobile subscriber equipment (MSE) packet-switching network (data) or circuit-switching network (voice). The TAMMIS will be replaced by the Defense Medical Logistics Standard Support (DMLSS) System. The DMLSS system will be an integrated part of the Theater Medical Information Program (TMIP) and Medical Communications for Combat Casualty Care (MC4). The TMIP/MC4 is the combined medical communications business information systems and communications architecture framework for the Army (see Chapter 5). The S4 section also uses tactical Logistics Application of Automated Marking and Reading Symbols (LOGMARS) which includes portable bar-code read/scanner, bar-code printers, and modems.

(*c*) This section plans and coordinates contractual support requirements for the hospital. Examples where contracting support may be used are food service, bath and laundry (corps CHS), general housekeeping, health care providers (physicians, nurses, and so forth), and medical equipment operators. The health service materiel officer will identify and coordinate contract support requirements with higher

headquarters which in turn coordinates with the Commander in Chief's (CINC's) designated principal assistant responsible for contracting. When possible, contract support requirements should be identified by higher headquarters in contingency plans and operations orders. For a detailed discussion on contractors on the battlefield, see FMs 100-21 and 100-10-2.

(*d*) This section is also responsible for maintaining the unit property book and for establishing a temporary morgue for handling remains until transported to supporting MA organization.

(*e*) This section will ensure each RTD soldier has or is issued one basic serviceable uniform and will also coordinate with the corps support command (COSCOM)/theater support command (TSC) for the transportation of RTD soldiers to the replacement companies.

(*f*) This section will coordinate patient movement item (PMI) requirements with the supporting MEDLOG battalion. This section will also return excess PMIs to the MEDLOG battalion.

(*g*) When the corps CSH is operating in a split-base mode, assets of the S4 section, HHD, will augment the supply and service section, 84-bed hospital company, to provide logistical continuity.

(5) *Communications-electronic section*. The Communications-Electronics Officer (US Army) (S6) section is responsible for installation, operation, and maintenance (IOM) of the future switch. This section is also responsible for the installation, operation, management, security, and maintenance of the local area network (LAN), to include unit file servers, archive devices and data storage procedures, information management systems resident on the LAN, and peripheral equipment in all sections of the hospital and attached units. It also plans for the integration of the 84-bed hospital company with the full CSH 248-bed hospital, when consolidated. Other responsibilities include coordinating with the supporting signal unit commander for—

- Training in network operations.
- Hospital connectivity to area network.
- Hardware/software maintenance support to the hospital switch.
- Managing network (frequency allocation, communications security [COMSEC], and so forth).

This section also provides unit-level maintenance and troubleshooting for all communications equipment. The S6 (CPT, area of concentration [AOC] 25A00) is the primary interface between the hospital and the signal unit for all signal support requirements. This section is located in both the corps and EAC HHD.

(6) *Automation support section*. This section is responsible for the planning and operation of the unit information management systems. It assists the commander and staff in the use of automated tools and plans for the horizontal and vertical internet of the hospital for any given mission. It maintains compact disk-read only memory (CD-ROM) unclassified libraries of medical and operational information required for the HHD and hospital operations, to include medical references, FMs, and technical manuals (TMs).

The section plans for emergency back-up procedures in the event of component failures or catastrophic events. It coordinates with organic and attached hospital units to ensure integration of information management systems and telemedicine services. The health service systems management officer is the hospital's agent for the automation information systems. This section is located in both the corps and EAC HHD.

(7) *Laundry section*. The laundry section is only organic to the corps hospital and provides laundry services for patient-related linens. It coordinates with the corps supporting element for all other laundry support. The EAC CSH has no laundry service capability; the S4 section coordinates all laundry support with the EAC supporting element.

(8) *Detachment headquarters*. The detachment headquarters is responsible for company-level command, duty rosters, weapons control, general supply support, and mandatory training. A detachment headquarters is located in both the corps and EAC HHD.

2-7. The 84-Bed Hospital Company

a. The 84-bed hospital company is a subordinate company of the 248-bed CSH. It provides hospitalization of up to 84 patients consisting of two wards providing critical care nursing for up to 24 patients and three wards providing intermediate care nursing for up to 60 patients (see Figures 2-4 and 2-5). Surgical capability includes general surgery and orthopedic surgery and is based on two OR tables staffed for 36 OR table hours per day. Requirements for additional surgical specialties in the corps 84-bed hospital company can be met by elements of the 164-bed hospital company, the FST (when not deployed forward), or the hospital augmentation team, head and neck. Requirements for additional surgical specialties in the EAC 84-bed hospital company can be met by elements of the 164-bed hospital company and the hospital augmentation team, head and neck.

b. The 84-bed hospital company provides emergency treatment to receive, triage, and prepare incoming patients for surgery and to provide consultation and outpatient clinic services for patients referred from other MTFs. Telemedicine consultation capability will be provided by the medical detachment, telemedicine.

c. This company also provides clinical laboratory services, to include limited basic microbiology screening, blood banking, and radiology. It provides the administrative, patient administration, logistical, and nutritional care services required for full hospitalization. Organic hospital personnel set up and break down the unit shelter systems in preparation for unit operations or movement.

d. The corps 84-bed hospital company has split-base operations capability. See Chapter 4 and Appendix I for additional information.

e. The methods of operation and functions by paragraph for this company are provided below.

(1) *Company headquarters*. This section is responsible for company-level command, duty rosters, weapons control, general supply support, and mandatory training. The company headquarters is found in both the corps and EAC 84-bed hospital company.

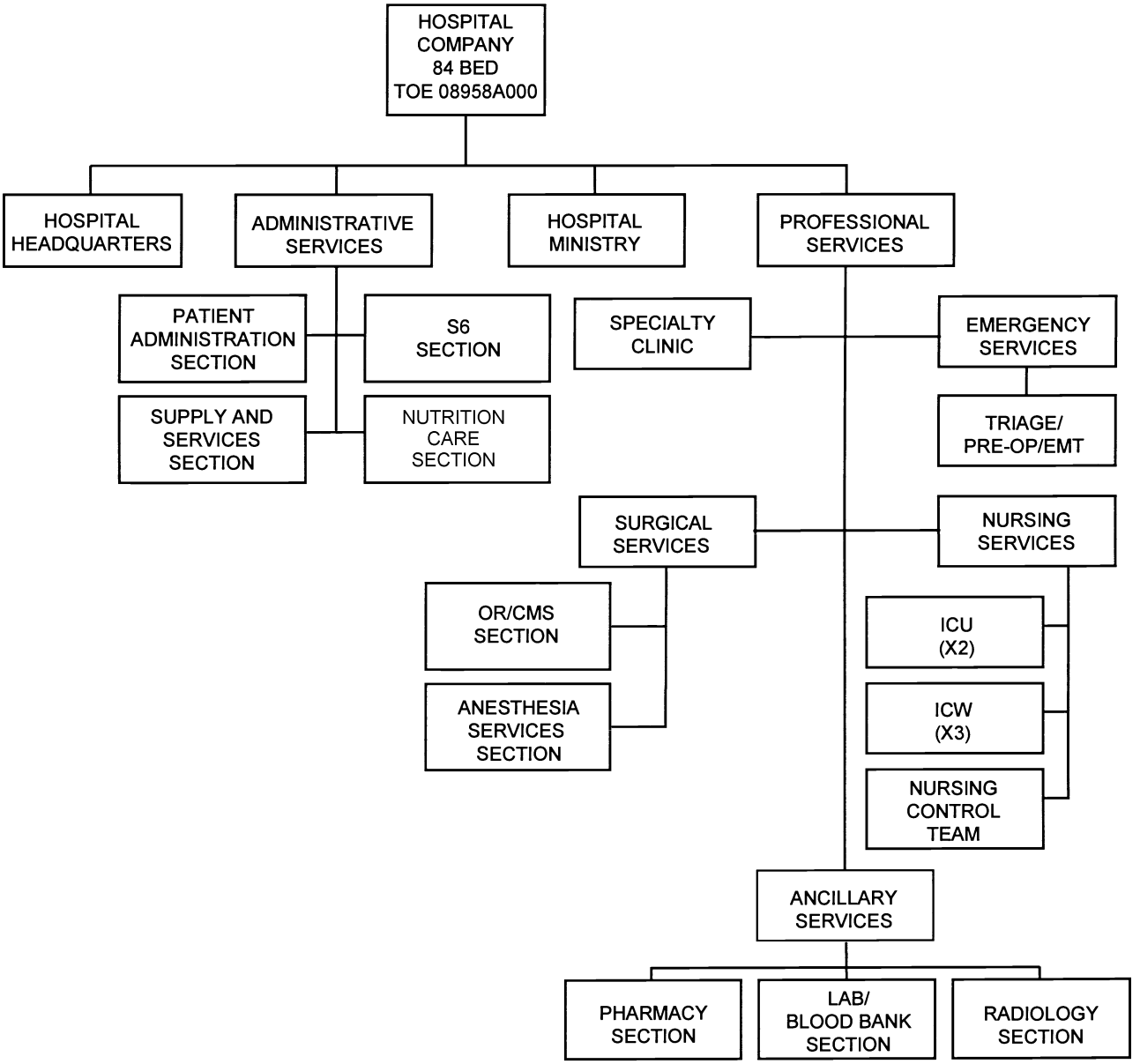


Figure 2-4. The corps 84-bed hospital company organization.

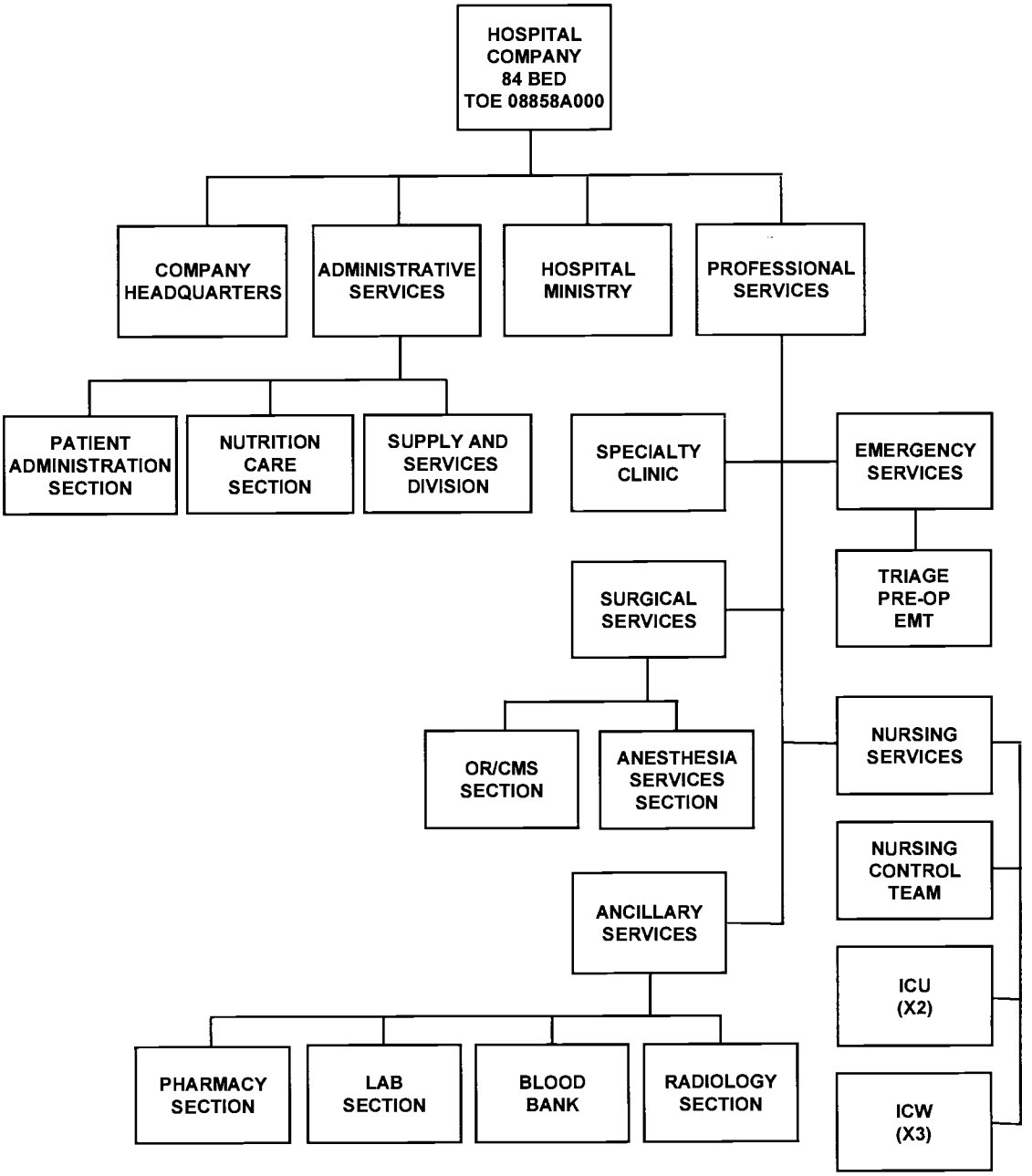


Figure 2-5. The echelon above corps 84-bed hospital company organization.

(2) *S6 section*. This section is responsible for installation, operation, management, and maintenance of the information management system and internal and external communications links for the company and attached elements. It plans for the communications and electronics integration of the company with the CSH when consolidated. This section establishes the LAN connectivity for this company's module as well as integration with the full CSH and attached units. This section is only found in the corps 84-bed hospital company.

(3) *Patient administration section*. This section is responsible for the admission and disposition of patients, maintenance of patient records, security of patient's valuables, and preparation of patient-statistical reports for the company. It also coordinates requests for patient evacuation and provides reports to higher headquarters. This section is found in both the corps and EAC 84-bed hospital company.

(4) *Nutrition care section*. This section is responsible for providing hospital unit nutrition services, meal preparation, and distribution to patients and staff, dietetic planning, patient education, and command advisor on health and nutrition and theater dietitic/nutritional health promotion. This section is found in both the corps and EAC 84-bed hospital company.

(5) *Supply and services section/division*. This section/division provides logistics functions for the hospital company and attached units, to include general and medical supplies and medical maintenance; blood management; water distribution, waste disposal, and environmental control of patient treatment areas; power and vehicle maintenance; fuel distribution, equipment records, and repair parts. The logistical capability is found in both the corps and EAC 84-bed hospital company. As shown in Figures 2-4 and 2-5, the logistics functions are performed by the supply and services section in the corps 84-bed hospital company. In the EAC 84-bed hospital company (nonsplit base [NSB]), these function are performed by the supply and services division.

(6) *Triage/preoperative/emergency medical treatment section*. This section provides for the receiving, triaging, and stabilizing of incoming patients. The staff will receive patients, assess their medical condition, provide EMT, and transfer them to the appropriate areas of the hospital unit. The staff will be trained in basic and advanced cardiac life support, EMT, and ATLS®, as appropriate to grade and skill level. The staff monitors patient conditions and prepares those requiring immediate surgery for the OR. The litter bearers are responsible for the transportation of patients within the hospital unit. The EMT personnel read from and input to the automated clinical record, using available information systems for both inpatients and outpatients. They use automated tools for access to medical and essential operational information. The section communicates directly with incoming evacuation platforms (ground and air) to provide en route telementoring and to ensure readiness to receive incoming patients. The section also provides on-site and remote consultation services via the medical detachment, telemedicine, when attached. This section is found in both the corps and EAC 84-bed hospital company.

(7) *Specialty clinics section*. This section combines an outpatient medical treatment section, orthopedic services, psychiatric services, PVNTMED surveillance capability of DNBI, and facilities support. The staff provides inpatient and outpatient on-site and remote consultations, as requested; evaluation and treatment of infectious disease and internal medicine disorders; evaluation and treatment of skin disorders; and treatment of patients with gynecological disease, injury, or disorders. They also provide inpatient and outpatient assessment and inpatient stabilization of neuropsychiatric patients. Neuropsychiatric stabilization

is undertaken in the ICW under the supervision of the neuropsychiatric staff and attending physician. The section also provides casting, splinting, and traction services. The section provides remote consultation services via the medical detachment, telemedicine, when attached. The specialty clinic section is found in both the corps and EAC 84-bed hospital company.

(8) *Operating room/central material service section*. This section provides supervision of the OR and central material service (CMS). It schedules the nursing staff, prepares and maintains the OR and CMS, and maintains surgical and nursing standards within these areas. It functions with the anesthesia service section to perform initial surgery for battle and nonbattle injuries and follow-on surgery for patients who have received initial surgery at other MTFs. It provides general and orthopedic surgical services with two OR tables for a total of 36 hours of operating table time per day. When augmented by specialty surgeons and equipment from other elements of the CSH and the hospital augmentation team, head and neck, it can provide thoracic, urological, and oral maxillofacial surgical services. The FST, when not deployed forward, is an additional augmentation for the corps CSH. The OR/CMS section provides records and reports to the commander for input to the Commander's Situation Report. The staff reads from and inputs to the automated clinical record, using available information systems. The staff provides remote consultation services via the medical detachment, telemedicine, when attached. The section functions with the CSH OR/CMS section as one surgical service, when consolidated. The OR/CMS section is found in both the corps and EAC 84-bed hospital company.

(9) *Anesthesia service section*. This section provides and manages the anesthesia program and respiratory services for the unit. It provides supervision and administration of anesthetics to patients undergoing surgery. It ensures appropriate supervision of respiratory therapy for patients. It ensures the clinical validation of medical equipment and supply sets for each mission, the readiness of clinical standard operating procedures, and the proficiency of AOC 66 and career management field (CMF) 91 to execute the mission of this section. The staff coordinates with and assists the EMT section in trauma care services. The staff provides remote consultation services via the medical detachment, telemedicine, when attached. This section functions with the CSH anesthesia and respiratory services section as one service, when consolidated. The anesthesia service section is found in both the corps and EAC 84-bed hospital company.

(10) *Nursing service section*. The Chief, Nursing Service, HHD, is the chief nurse for this section. This section is responsible for the management of daily operations of nursing services throughout the unit, to include scheduling and supervision of nursing staff; preparation and coordination of duty rosters; emergency mass casualty plans; and contingency staffing. It plans, organizes, executes, and directs nursing care practices and activities of the unit. This section ensures training and readiness for deployment of AOC 66 officers and CMF 91 personnel. It also ensures the clinical validation of medical equipment and supply sets of the unit for each mission, the readiness of clinical standard operating procedures, and the proficiency of AOC 66 officers and CMF 91 personnel to execute the mission of this unit. The section plans, coordinates, and supervises the layout and design of the hospital physical facilities. This section is found in both the corps and EAC 84-bed hospital company.

(11) *Intensive care units*. Two 12-bed ICUs provide for critically injured or ill patients and are responsible to the nursing service control team. The ICUs manage surgical or medical patients whose physiological status is so disrupted that they require immediate and continuous medical and/or nursing care. The staff is specially trained with the clinical and managerial skills necessary to deliver safe nursing care to

patients with complex nursing and medical problems. The ICUs are also used as a preoperative stabilization area and postanesthesia recovery area for patients either awaiting surgery or recovering from surgery. The staff provides remote consultation services via the medical detachment, telemedicine, when attached. The ICUs are found in both the corps and EAC 84-bed hospital company.

(12) *Intermediate care ward*. The three ICWs manage surgical or medical patients whose conditions require observation for real or potential life-threatening disease/injury. The acuity of care may range from those requiring constant observation to those patients able to ambulate and to begin to assume responsibility for their care. The level of care and acuity of these patients may fluctuate depending on the intensity of conflict. Although not routine, ICW patients may require monitoring devices and ventilator support. Each ward consists of 20 beds. The staff provides remote consultation services via the medical detachment, telemedicine, when attached, in accordance with their technical expertise. The ICWs are found in both the corps and EAC 84-bed hospital company.

(13) *Pharmacy section*. The pharmacy is responsible for quality control of pharmaceuticals, distribution of bulk drugs, maintenance and publication of the hospital formulary, and the intravenous (IV)-additive program. This section maintains a registry for controlled drugs and a roster of individuals approved for the accountability of controlled drugs. The pharmacy provides outpatient medications for the required number of days to complete therapy and/or the supply of medications required for air evacuation out of the corps or theater. It uses automated systems for requisition of pharmacy supplies and interfaces with other unit sections for bulk pharmacy orders and with the supply and services section for resupply. The staff provides remote consultation services via the medical detachment, telemedicine, when attached, in accordance with their technical expertise. It functions as a single service with the pharmacy services section of the CSH, when consolidated. The pharmacy section is found in both the corps and EAC 84-bed hospital company.

(14) *Laboratory services/blood bank section*. This section performs analytical procedures in hematology, urinalysis, chemistry, blood banking, and limited basic microbiology screening. The EAC CSH has the capability to perform analytical procedures in microbiology; the corps CSH requires the attachment of the hospital augmentation team, pathology for this capability. The staff provides blood-banking services, including all routine blood grouping and typing, abbreviated crossmatching procedures, emergency blood collection, and blood inventory management. This section stores and issues liquid blood components and fresh frozen plasma (FFP). It coordinates with the supply and services section and directly with the MEDLOG battalion and, as required, with the blood program office for blood supply and resupply requirements. It provides automated records and reports of current and projected blood status to the commander and higher headquarters. The staff provides remote consultation services via the medical detachment, telemedicine, when attached, in accordance with their technical expertise. The section functions as a single service with the laboratory services/blood bank section of the CSH, when consolidated. Both the corps and EAC 84-bed hospital company have laboratory and blood support capabilities.

(15) *Radiology section*. This section provides radiological services to all areas of the hospital unit and operates on a 24-hour basis. It prepares digital x-rays for transmission to the radiologist of the CSH or other consulting radiologists as requested by physicians. This section is responsible to the radiologist of the CSH for standing operating procedures (SOP) and policies. The radiology section is found in both the corps and EAC 84-bed hospital company.

(16) *Hospital ministry team*. This team is responsible to the commander for religious support and pastoral care ministry for all staff and patients. It promotes spiritual health within the unit and performs liaison and consultative functions to ensure continuity of patient care between the hospital unit, CSC units, and the patient's unit of origin. The team advises the commander on spiritual and CSC for unit personnel. It is responsible for providing inpatient daily clinical ministry to all nursing wards and the EMT section, as required. The team functions as a single team with the hospital ministry team of the CSH, when consolidated. The hospital ministry team is found in both the corps and EAC 84-bed hospital company.

2-8. The 164-Bed Hospital Company

a. The 164-bed hospital company is a subordinate company of the 248-bed CSH hospital. This company provides hospitalization for up to 164 patients, consisting of two wards providing critical care nursing for up to 24 patients, and seven wards providing intermediate care nursing for up to 140 patients (see Figures 2-6 and 2-7). Surgical capability, including general, orthopedic, thoracic, urological, gynecological, and oral maxillofacial, is based on four OR tables staffed for 60 OR table hours per day. This company also provides OR space and time for OR table hours required by the hospital augmentation team, head and neck, when attached. Requirements for additional surgical specialties in the corps 164-bed hospital company can be met by elements of the FST (when not deployed forward). Requirements for additional surgical specialties in the corps and EAC 164-bed hospital company can be met by the hospital augmentation team, head and neck.

b. The 164-bed hospital company provides emergency treatment to receive, triage, and prepare incoming patients for surgery and to provide consultation and outpatient clinic services for patients referred from other MTFs. A telemedicine consultation capability will be provided by the medical detachment, telemedicine.

c. This company also provides a clinical laboratory, to include limited basic microbiology, blood banking, and radiology services. It provides the administrative, patient administration, logistical, and nutritional care services required for full hospitalization. Organic hospital personnel set up and break down the unit shelter systems in preparation for unit operations or movement.

d. The methods of operation and functions by paragraph for the corps and EAC 164-bed company are provided below. Paragraphs are annotated to reflect differences. Figures 2-6 and 2-7 reflect organizational differences.

(1) *Company headquarters*. This headquarters is responsible for company-level command, duty rosters, weapons control, general supply support, and mandatory training. A company headquarters is found in the corps and EAC 164-bed hospital company.

(2) *Patient administration section*. This section is responsible for the admission and disposition of patients, maintenance of patient records, security of patient valuables, and preparation of patient statistical reports for the company. It also coordinates requests for patient evacuation and provides reports to the hospital commander. The patient administration section is found only in the corps 164-bed hospital company.

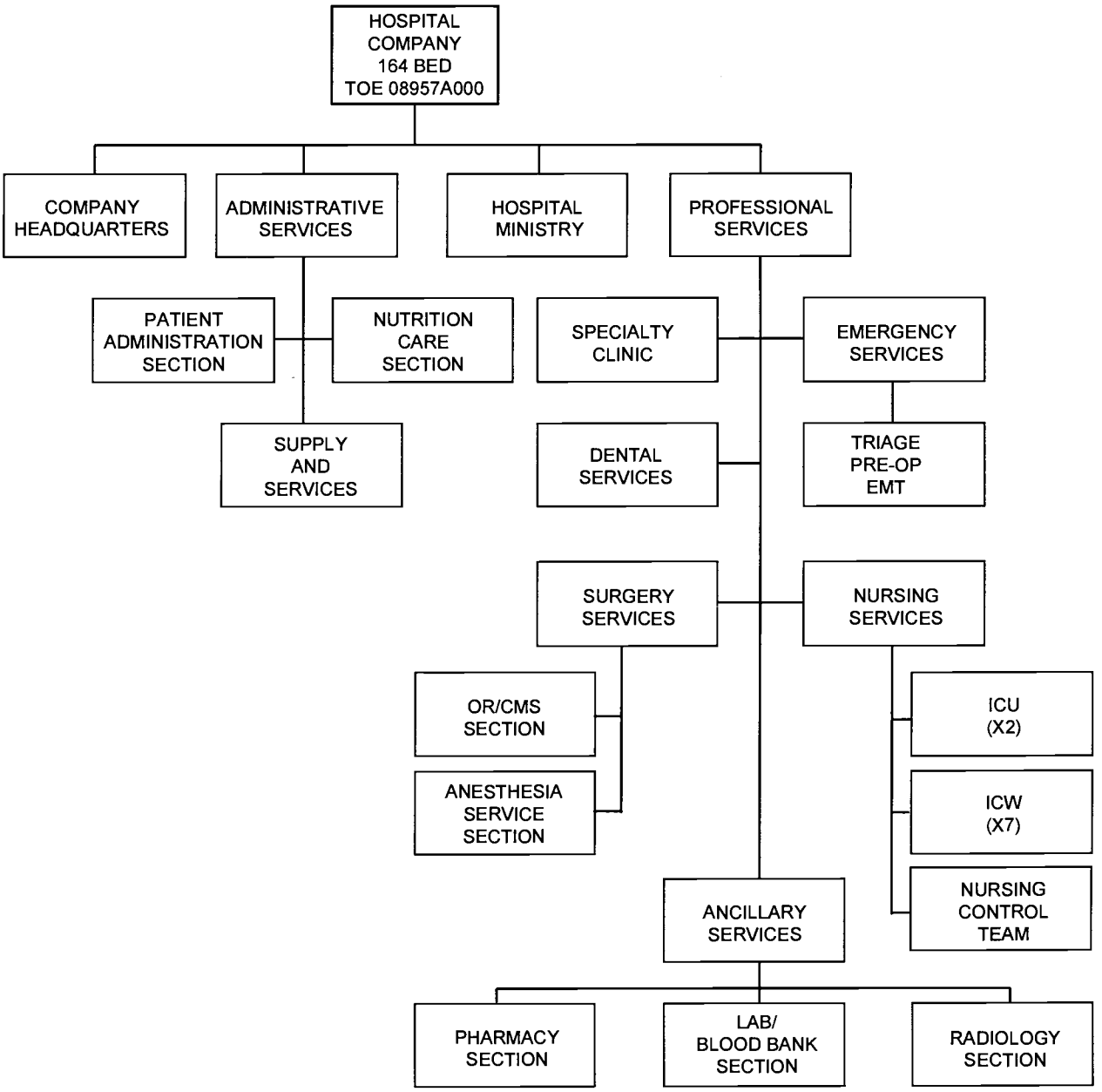


Figure 2-6. The corps 164-bed hospital company organization.

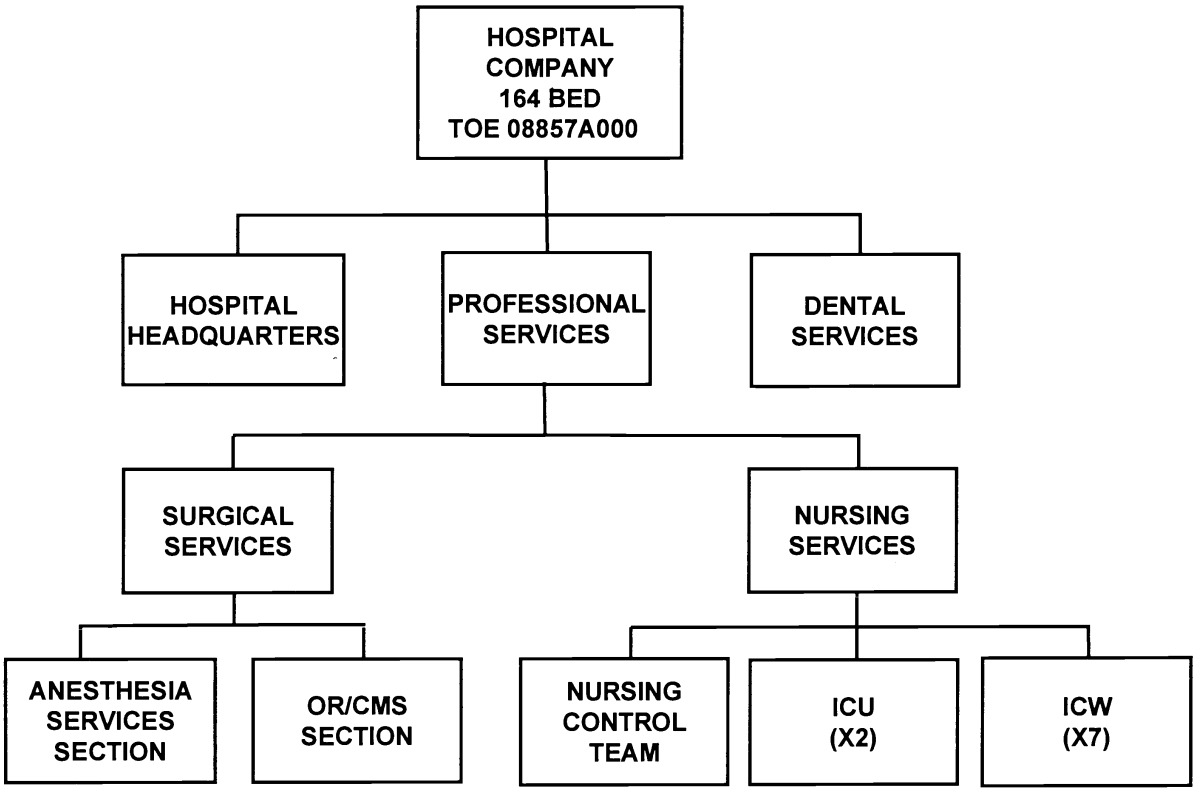


Figure 2-7. The echelon above corps 164-bed hospital company organization.

(3) *Nutrition care section*. This section is responsible for providing hospital unit nutrition services, meal preparation and service to patients and staff, dietetic planning, patient education, command advisor on health and nutrition and theater health promotion. This section is found only in the corps 164-bed hospital company.

(4) *Supply and service division*. This division is responsible for the logistics functions of the hospital company and attached units, to include general and medical supplies; medical maintenance (MEDMNT); blood management; water distribution, waste disposal, and environmental control of patient treatment areas; power and vehicle maintenance; fuel distribution; and equipment records and repair parts management. Additionally, this division is responsible for coordinating with the supporting element of the MEDLOG battalion for the return of PMIs. Medical logistics and MEDMNT will be managed utilizing the TAMMIS-MEDLOG and TAMMIS-MEDMNT. This division is found only in the corps 164-bed hospital company.

(5) *Triage/preoperative/emergency medical treatment section*. This section provides for the receiving, triaging, and stabilizing of incoming patients. The staff will receive patients, assess their medical condition, provide EMT, and transfer them to the appropriate areas of the hospital unit. The staff will be trained in basic and advanced cardiac life support, EMT, and ATLS® as appropriate to grade and skill level. The staff monitors patient conditions and prepares those requiring immediate surgery for the OR. The litter bearers are responsible for the transportation of patients within the hospital unit. The EMT personnel read from and input to the automated clinical record, using available information systems for both inpatients and outpatients. They use automated tools to access medical and essential operational information. The section communicates directly with incoming evacuation platforms (ground and air) to provide en route telementoring and to ensure readiness of the section to receive incoming patients. The section also provides supervision and management of medical evacuation battalion elements, when attached. It provides on-site and remote consultation services via the medical detachment, telemedicine, when attached. This section is found only in the corps 164-bed hospital company.

(6) *Operating room/central material section*. This section provides supervision of the OR and CMS. It schedules nursing staff, prepares and maintains the OR and CMS, and maintains surgical and nursing standards within these areas. It functions with the anesthesia section to perform initial surgery for battle and nonbattle injuries and follow-on surgery for patients received from other MTFs. It provides general, orthopedic, thoracic, urological, gynecological, and oral maxillofacial surgical services with four OR tables for a total of 60 hours of table time per day. It uses automated tools to maintain projected OR schedules and determine OR surgical backlog in terms of projected hours to complete each surgery and numbers of patients. It provides records and reports to the commander for input to the Commander's Situation Report. The staff reads from and inputs to the automated clinical record using available information systems. It accesses digital x-ray files for patient care during surgery. The section provides remote consultation services via the medical detachment, telemedicine, when attached. The section functions with the 84-bed hospital company, OR/CMS as one surgical service, when consolidated. The OR/CMS is found in both the corps and EAC 164-bed hospital company.

(7) *Anesthesia service section*. This section provides and manages the anesthesia program and respiratory services for the unit. It provides supervision and administration of anesthetics to patients undergoing surgery. The staff ensures the clinical validation of medical equipment and supply sets for each mission, the readiness of clinical standard operating procedures, and the proficiency of AOC 66 and CMF 91 to execute the mission of this section. The section coordinates with and assists the EMT section in trauma care services. The staff provides remote consultation services via the medical detachment, telemedicine, when attached. It functions with the 84-bed hospital company anesthesia and respiratory services section as one service, when consolidated. This section is found in both the corps and EAC 164-bed hospital company.

(8) *Specialty clinic*. This clinic provides patient services including sick call for staff and attached units. The clinic staff provides primary care and internal medicine consultation services for hospital patients and patients referred from other MTFs. This clinic functions in conjunction with the EMT section to efficiently provide treatment for in-coming ambulatory patients. It evaluates and treats dermatological and gynecological diseases, injuries, and disorders. It provides orthopedic and physical therapy services. It also provides PVNT surveillance capability of DNBI. This clinic also provides outpatient psychiatry and inpatient neuropsychiatric consultation services. Neuropsychiatric stabilization is

undertaken in the ICW beds or minimal care detachment under the care of the psychiatric staff and attending physician. The clinic provides remote consultation services via the medical detachment, telemedicine, when attached. This clinic is found only in the corps 164-bed hospital company.

(9) *Dental section*. This section provides dental services and consultation for patients and staff. The alternate wartime role for this section is to augment the hospital with an additional combat casualty care capability. During mass casualty situations, the dentists assist in the delivery of ATLS®. The staff reads from and inputs to the automated clinical record using available information systems for both inpatients and outpatients. The staff provides remote consultation services via the medical detachment, telemedicine, when attached. The dental section is found in both the corps and EAC 164-bed hospital company.

(10) *Nursing service section*. This section is responsible to the chief nurse for the management of daily operations of nursing services throughout the unit to include scheduling and supervision of nursing staff, preparation and coordination of duty rosters, emergency mass casualty plans, and contingency staffing. It plans, organizes, executes, and directs nursing care practices and activities of the unit. This section ensures training and readiness for deployment of AOC 66 officers and CMF 91 personnel. It also ensures the clinical validation of medical equipment and supply sets of the unit for each mission, the readiness of clinical standard operating procedures, and the proficiency of AOC 66 officers and CMF 91 personnel to execute the mission of this unit. The section plans, coordinates, and supervises the layout and design of the hospital physical facilities. This section is found in both the corps and EAC 164-bed hospital company.

(11) *Intensive care units*. Two 12-bed ICUs provide for critically injured or ill patients and are responsible to the nursing service control team. The ICUs manage surgical or medical patients whose physiological status is so disrupted that they require immediate and continuous medical and/or nursing care. The staff is specially trained with the clinical and managerial skills necessary to deliver safe nursing care to patients with complex nursing and medical problems. The ICUs are also used as a preoperative stabilization area and postanesthesia recovery area for patients either awaiting surgery or recovering from surgery. The staff provides remote consultation services via the medical detachment, telemedicine, when attached. The ICUs are found in both the corps and EAC 164-bed hospital company.

(12) *Intermediate care ward*. The seven ICWs manage surgical or medical patients whose conditions require observation for real or potentially life-threatening disease/injury. The acuity of care may range from those requiring constant observation to those patients able to ambulate and to begin to assume responsibility for their care. The level of care and acuity of these patients may fluctuate depending on the intensity of conflict. Although not routine, ICW patients may require monitoring devices and ventilator support. Each ward consists of 20 beds. The staff provides remote consultation services via the medical detachment, telemedicine, when attached, in accordance with their technical expertise. The ICWs are located in both the corps and EAC 164-bed hospital company.

(13) *Pharmacy section*. The pharmacy section is responsible for quality control of pharmaceuticals, distribution of bulk drugs, maintenance and publication of the hospital formulary, and the IV-additive program. This section maintains a registry for controlled drugs and a roster of individuals approved for accountability of the controlled drugs. The pharmacy provides outpatient medications for the required number of days to complete therapy and/or the supply of medications required for air evacuation

out of the corps or theater. It uses automated systems for pharmacy supply requisitions and interfaces with other unit sections for bulk pharmacy orders and with the supply and services section for resupply. The staff provides remote consultation services via the medical detachment, telemedicine, when attached, in accordance with their technical expertise. This section is located in the corps 164-bed hospital company. It functions as a single service with the pharmacy services section of the corps 84-bed hospital company when consolidated.

(14) *Laboratory services/blood bank section*. This section performs analytical procedures in hematology, urinalysis, chemistry, blood banking, and limited basic microbiology screening. The EAC CSH has the capability to perform analytical procedures in microbiology; the corps CSH requires the attachment of the Hospital Augmentation Team, Pathology for this capability. The staff provides blood banking services, including all routine blood grouping and typing, abbreviated crossmatching procedures, emergency blood collection, and blood inventory management. This section stores and issues liquid blood components and FFP. It coordinates with the supply and services section and directly with the MEDLOG battalion and, as required, with the blood program office for blood supply and resupply requirements. It provides automated records and reports of current and projected blood status to the commander and higher headquarters. The staff provides remote consultation services via the medical detachment, telemedicine, when attached, in accordance with their technical expertise. It functions as a single service with the laboratory services/blood bank section of the CSH, when consolidated. The laboratory services/blood bank section is found in the corps 164-bed hospital company.

(15) *Radiology services*. This section provides radiological services to all areas of the hospital unit. It prepares digital x-rays for transmission to the radiologist of the CSH or other consulting radiologists as requested by physicians. The radiology services are found in the corps 164-bed hospital company. It functions as a single service with the radiology section of the CSH, when consolidated.

(16) *Hospital ministry team*. This section is responsible to the commander for religious support and pastoral care ministry for all staff and patients. It promotes spiritual health within the unit and performs liaison and consultative functions to ensure continuity of patient care between the hospital unit, CSC units, and the patient's unit of origin. The team advises the commander on spiritual support for unit personnel. It works with the psychiatric personnel of the specialty clinic to provide stress control, including debriefing, to patients and staff. It is responsible for providing inpatient daily clinical ministry to all nursing wards and the EMT section, as required. The hospital ministry team is found in the corps 164-bed hospital company. The team functions as a single team with the hospital ministry team of the CSH, when consolidated.

CHAPTER 3

COMMAND, CONTROL, AND COMMUNICATIONS OF THE COMBAT SUPPORT HOSPITAL

3-1. Command and Control

The major corps and EAC C2 medical units are the MEDCOMs and the medical brigades. The mission of the MEDCOM and medical brigade is to C2 and supervise assigned and attached units. The MEDCOM is assigned on the basis of one per theater and one per corps. The medical brigade is assigned to MEDCOMs on the basis of up to four per MEDCOM theater and up to four per MEDCOM corps. The types and number of CHS units assigned to the medical C2 units depend on various factors such as size, composition, and location of supported forces; types of operations conducted; anticipated workload; and theater evacuation policy. The MEDCOMs control the majority of their assigned units through subordinate medical brigades. However, in stability operations and support operations, and humanitarian assistance missions, a CSH or 84-bed hospital company may be the largest medical unit deployed, and the hospital commander, as the senior medical officer, may be the medical task force commander. The CSH will need to assure communications for subordinate PVNTMED, veterinary, CSC, and evacuation units in the task force, that are mobile throughout the AO.

3-2. Communications

Management and control of CHS operations is dependent on the hospital headquarters' ability to communicate with its staff, the MEDCOM, the medical brigade, elements of the medical evacuation battalion, other CSS units, and to monitor the battle. Hospital communications assets include amplitude-modulated (AM) and frequency-modulated (FM) radios, battlefield automation systems, MSE, and the future Warfighter Information Network (WIN).

a. Communications Planning. A HN commercial communications system may be available. The area common user network interfaces with existing combined communications systems and any existing local telephone and telegraph systems. This is accomplished as outlined in applicable STANAGs and HN support agreements. It should be noted that military, civilian agency, and civilian law enforcement communications systems may not be compatible. Extensive communications planning is required for joint military-civilian stability operations and support operations. The S6 section, in coordination with the hospital S2/S3, must plan for communications requirements and usage for each phase of military operation—predeployment, deployment, sustainment operations, and redeployment. The S6 is responsible to the commander for all aspects of communications.

b. Communications Support. Communications support for organizations within a TO is based upon a unit's level of operations. Signal support for the EAC CSH is provided by the theater signal brigade through the theater Deputy Chief of Staff for Operations and the Deputy Chief of Staff for Information Management. The corps CSH S6 will request signal support through the corps Assistant Chief of Staff, G6 (Signal) and will be supported by the corps signal brigade.

c. Combat Support Hospital. The CSH has been reengineered and restructured to support Army XXI operations. An organic digital switch will provide internal voice and data services that the switchboard 86 in the current MF2K hospitals cannot accommodate. A WIN small extension node (SEN), organic to the

CSH, will replace the SEN, currently provided by the supporting signal battalion, during normal operations. During split-based operations, where the CSH has hospital elements forward, both the organic SEN and the signal battalion's SEN may be required. The restructured CSH will be communications and automation intensive. They will employ telemedicine in various forms (voice, still imagery, x-ray, and full motion video) internally and externally to other medical facilities in theater, as well as to hospitals in CONUS. The signal officer (S6) will be the interface with the CSH for all signal matters.

d. S6 Section. Personnel of the S6 section are responsible for performing management operations and overseeing the IOM of all communications and information systems (IS) in the CSH. The S6 coordinates with the supporting signal battalion/brigade for connectivity to the wide area network (WAN). They are responsible to the commander for all connectivity to the WAN. Table 3-1 lists the tasks and functions of the S6.

Table 3-1. S6 Tasks and Functions

TASKS	FUNCTIONS
NETWORK EMPLOYMENT	ESTABLISHES, MANAGES, AND MAINTAINS COMMUNICATIONS LINKS. ADVISES THE COMMANDER ON COMMUNICATIONS SUPPORT REQUIREMENTS. PLANS, COORDINATES, AND MANAGES NETWORK IS TERMINALS (REGARDLESS OF AFFILIATION).
NETWORK CONFIGURATION	DETERMINES THE TACTICAL SITUATION AND SYSTEM REQUIREMENTS NEEDED FOR SUPPORT. COORDINATES AND PLANS WAN CONFIGURATION. DETERMINES COMMUNICATIONS AND/OR TRANSMISSION CONNECTIVITY REQUIREMENTS. INFORMS THE COMMANDER ON PRIMARY AND ALTERNATE COMMUNICATIONS. DEVELOPS INITIALIZATION INSTRUCTIONS FOR NEW OR MODIFIED COMMUNICATIONS SYSTEMS. ASSISTS OPERATORS WITH DATABASE CONFIGURATIONS. SUPERVISES NETWORK CONFIGURATION, INITIALIZATION, AND TACTICAL LAN INSTALLATION. ESTABLISHES AND ENFORCES NETWORK POLICIES AND PROCEDURES. DETECTS, REPORTS, AND TAKES CORRECTIVE ACTION ON SECURITY VIOLATIONS AND POSSIBLE INTERNAL AND EXTERNAL INTRUSIONS. DEVELOPS THE C2 NETWORK ANNEX TO THE OPORD. ADVISES THE COMMANDER AND USERS ON THE REQUIREMENTS, CAPABILITIES, AND USE OF THE SYSTEMS. DETERMINES THE TACTICAL LAN CONFIGURATION FOR THE CSH. MONITORS NETWORK CONFIGURATION.
NETWORK STATUS MONITORING AND REPORTING	MONITORS THE STATUS OF C2 DEVICES USING NETWORK MANAGEMENT TOOLS. MONITORS THE STATUS OF COMMUNICATIONS LINKS THROUGH AUTOMATED REPORTS FROM THE SCC-2, TO INCLUDE— MSE PACKET NETWORK. MSE CIRCUIT SWITCH NETWORK. CNR AS REPORTED BY SUBORDINATES. EPLRS/JTRS AS REPORTED BY THEIR NCSs. BROADCAST SYSTEMS AS REPORTED BY THEIR NCSs. REPORTS NETWORK CHANGES TO THE COMMANDER. MONITORS NETWORK PERFORMANCE AND DATABASE CONFIGURATION AND RECONFIGURATION.

Table 3-1. S6 Tasks and Functions (Continued)

TASKS	FUNCTIONS
NETWORK CONTROL AND RECONFIGURATION	PROVIDES SUPERVISION AND GUIDANCE ON TROUBLESHOOTING AND CORRECTING NETWORK PROBLEMS. TROUBLESHOOTS INTERCONNECTION DEVICE PROBLEMS THROUGHOUT THE SYSTEMS. DETERMINES THE NEEDS FOR CONFIGURATION CHANGES. PLANS SYSTEM RECONFIGURATIONS CAUSED BY CHANGES IN THE TACTICAL SITUATION, COMMUNICATIONS CONNECTIVITY, AND SYSTEM INITIALIZATION INSTRUCTIONS. SUPERVISES CHANGES IN SYSTEM CONFIGURATION, INITIALIZATION, AND LAN INSTALLATIONS. PROVIDES SUPERVISION AND GUIDANCE ON INITIALIZATION AND CONFIGURATION INSTRUCTIONS. REPLICATES, DISTRIBUTES, AND CONTROLS COE SOFTWARE IN ACCORDANCE WITH INSTRUCTIONS IN APPROPRIATE TBs AND SOPs.
TRAINING	ASSISTS IN TRAINING C2 SYSTEMS PERSONNEL. SUPPORTS THE DEVELOPMENT AND EXECUTION OF TRAINING FOR IS PERSONNEL AND COLLECTIVE TRAINING FOR THE UNIT. PROVIDES TRAINING IN ESTABLISHING AND INTERCONNECTING NETWORKS TO USERS AND SUPERVISORS.
SECURITY	PREPARES COMMUNICATIONS NETWORK SECURITY PLANS, INSTRUCTIONS, AND SOPs. DEVELOPS SECURITY POLICIES AND PROCEDURES FOR NETWORK OPERATIONS. MONITORS THE SECURITY INTEGRITY OF THE NETWORK AND REPORTS BREACHES IN THAT SECURITY. REPORTS THREATS TO NETWORK SECURITY. ESTABLISHES PROCEDURES TO RESTRICT ENTRY OF UNAUTHORIZED USERS, TRANSACTIONS, OR DATA. ENSURES ALL IS OPERATE IN ACCORDANCE WITH AR 380-19 AND LOCAL SECURITY SOPs. ENSURES THE IMPLEMENTATION OF ACCESS CONTROL PROCEDURES. ENSURES ISSOs ARE APPOINTED FOR EACH AIS.

e. Staff Responsibilities. Each staff element of the CSH is responsible for adhering to the unit's tactical standing operating procedure (TSOP) and signal support policies in accordance with AR 380-19 during their daily operations.

f. Area Common-User System.

(1) The area common-user system (ACUS) is the hospital's primary means of communications. The ACUS is a communications system made up of a series of network node switching centers connected primarily by line-of-sight multichannel radios and tactical satellites (TACSAT). Army ACUS networks are tri-service tactical communications (TRI-TAC) at EAC and MSE at echelons corps and below (ECB). Figure 3-1 shows support provided at EAC. Figure 3-2 (page 3-5) shows MSE at ECB. Each MSE corps network includes connections to the EAC TRI-TAC network and adjacent corps. This network provides voice and digital data transmission capabilities for C2, operations/intelligence, administration, and logistics functions.

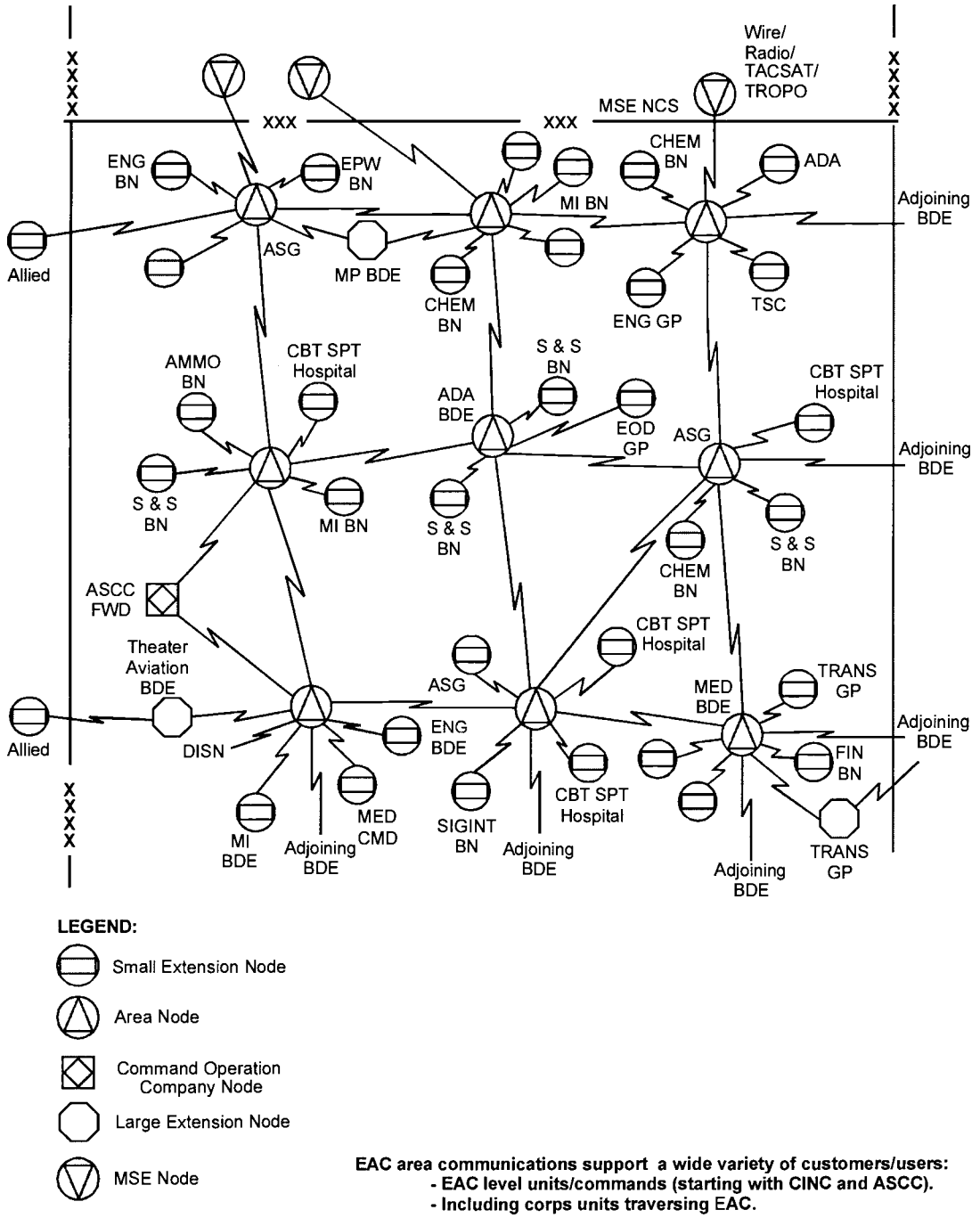


Figure 3-1. Echelon above corps area communications support.

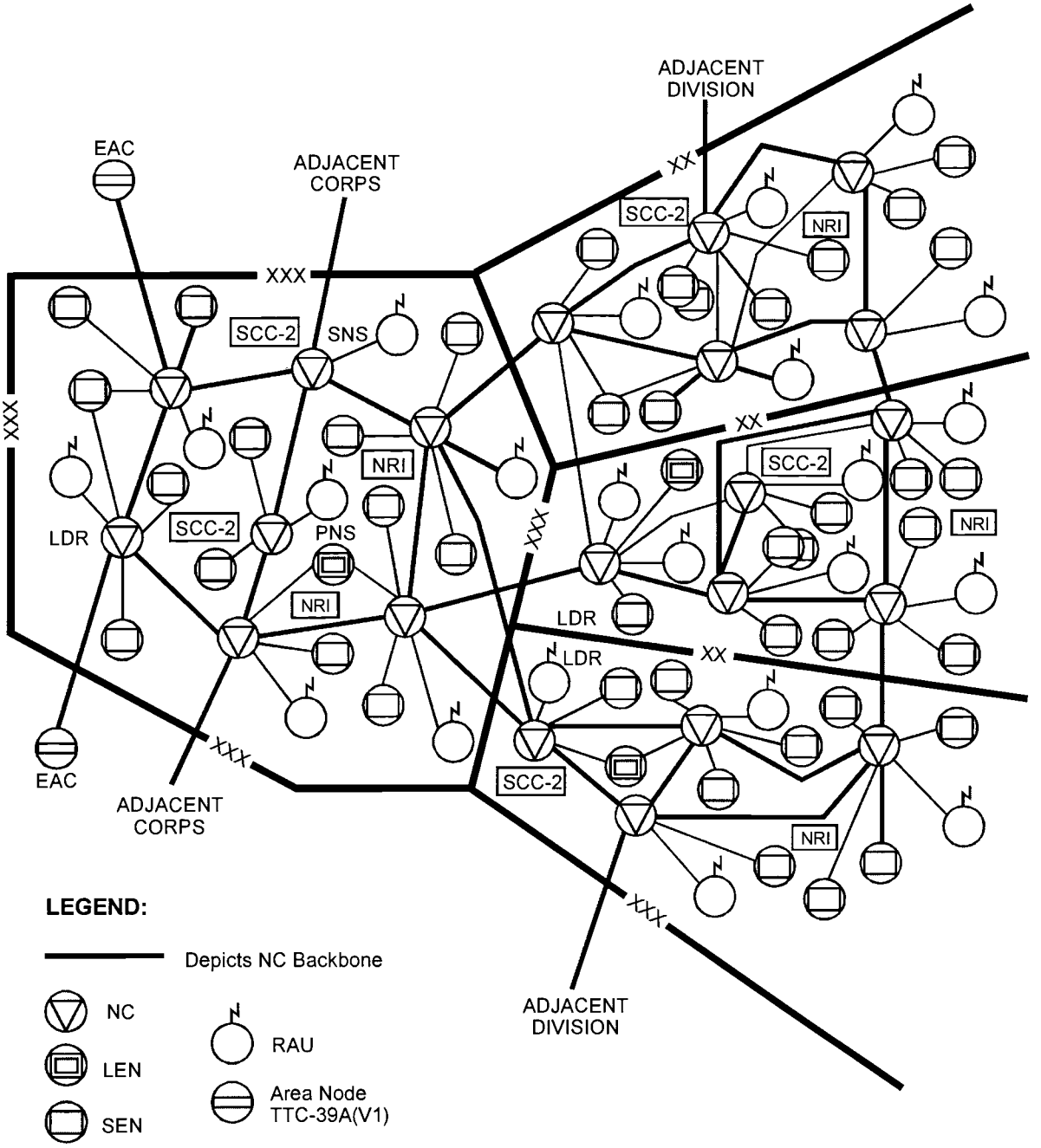


Figure 3-2. Mobile subscriber equipment system architecture.

(2) The MSE system is a common-user, switched communications system of linked switching nodes. The nodes form a grid that provides the force with an ACUS. It is one of the major communications systems of an Army force at ECB. The other major communications systems include combat net radio (CNR), net radio interface (NRI), and the Enhanced Position Location Reporting System (EPLRS).

(3) The MSE system is digital, secure, and flexible. It contains features that compensate for link or functional element outages, overload in traffic, and rapid movement of users. Mobile subscriber equipment provides voice and data communications on an automatic, discrete-addressed, fixed-directory basis using the flood search routing technique. Mobile subscriber equipment supports mobile and wire subscribers with a means to exchange command, control, communications, computers, and intelligence (C4I) information. A tactical packet network (TPN) switch is installed in the SEN for passing data traffic.

(4) Mobile subscriber equipment mounts in shelters on high-mobility multipurpose wheeled vehicles (HMMWVs) and is easily transportable by roll-on and roll-off aircraft. Organic TACSAT equipment and tropospheric (TROPO) scatter equipment provide range extension capabilities for MSE. Range extension improves the employment capability of MSE.

(5) The WIN will replace the MSE and TRI-TAC systems. The WIN follows the same principles as existing ACUS networks; it merely has higher capacity and speed for increased voice, data, and video traffic. The WIN SEN will provide WAN access for the hospital; the S6 section is responsible for IOM.

g. Radio Access units. Radio access units (RAUs) let the users of mobile subscriber radiotelephone terminals communicate with other mobile and wire telephone users throughout the corps area. The system control center-2 (SCC-2) provides the processing capability to assist in the overall network management. At ECB, the MSE system lets subscribers communicate with each other using fixed directory numbers regardless of a subscriber's battlefield location. The SEN and large extension node (LEN) operate at ECB to support voice and data communications. Figure 3-3 depicts a typical internodal connectivity.

h. Net Radio Interface. Net radio interface is a system for accessing the MSE network via the CNR. The norm is to use tactical FM radios to access the NRI; however, access is also possible using the AM improved high-frequency radios (IHFRs). Users call a RAU over an FM radio and are patched into the network. This procedure works in reverse, too.

i. Hospital Radio Nets. The CSHs and their staffs depend on both CNRs and area communications systems to operate. These systems are used to facilitate patient management, air and ground evacuation, and medical regulation of patients. The hospital nets link the hospitals with the MEDCOM and/or medical brigade that is the net control station (NCS) for the CHS operations net.

j. Combat Net Radio System. The CNR system is authorized for both the corps CSH and the EAC CSH. The CNR system includes both the single-channel ground and airborne radio system (SINCGARS) (FM) radios and the IHFRs (AM).

(1) *Frequency-modulated radio.* The hospitals' FM radio net is shown in Figure 3-4. The primary system used today is the SINCGARS. Frequency modulated radios are designed for simple and

quick operation at relatively short range (maximum 20 miles without a retransmission network). The US military frequency range is 30 to 88 megahertz (MHz), a part of the very high frequency band.

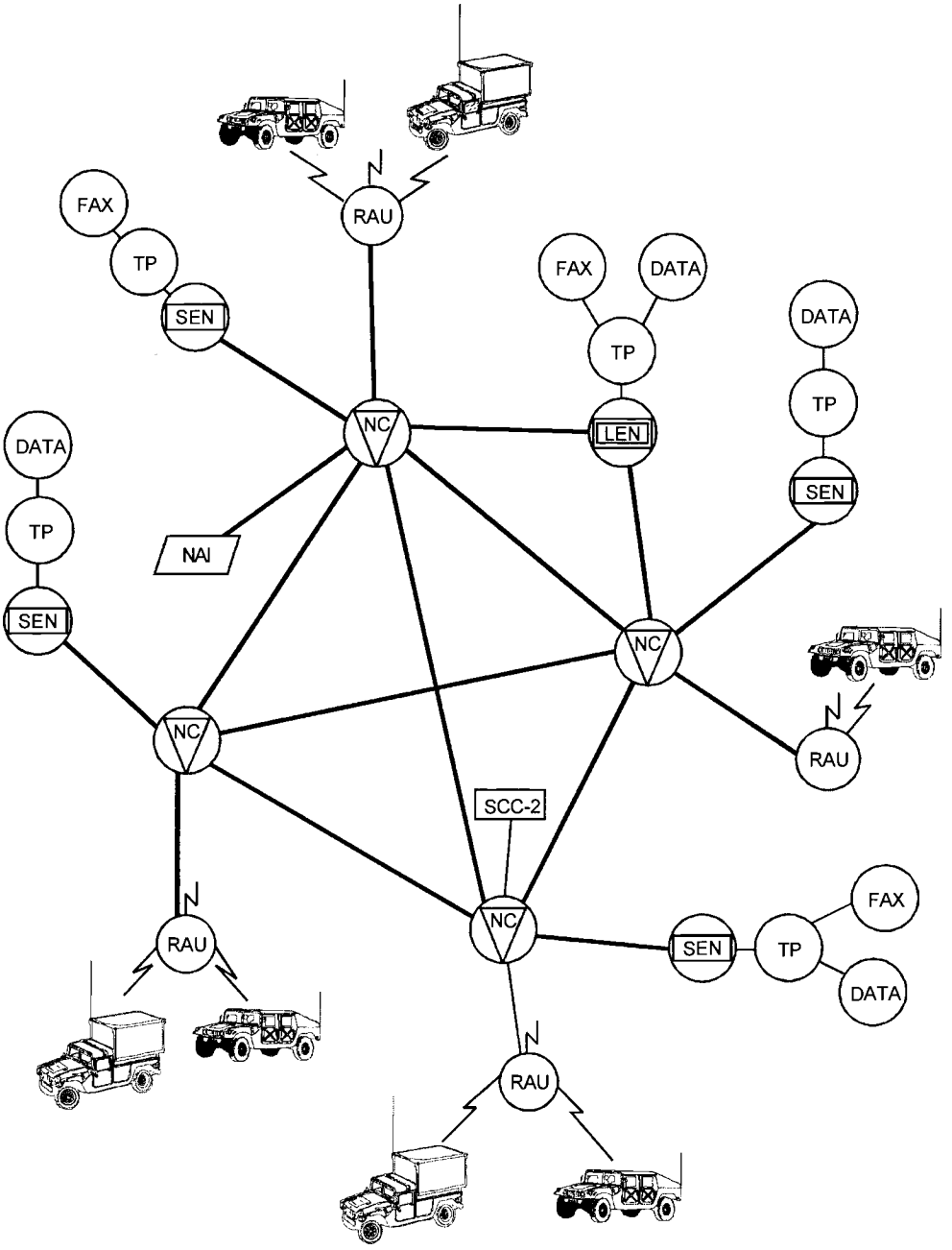


Figure 3-3. Internodal connectivity.

(2) *Amplitude-modulated improved high-frequency radio*. The AM radios provide mid-to-far range capability (15 to 2000 miles) and have a frequency range of 2 to 30 MHz, a part of the high frequency band. They use "nature's satellite" or the ionosphere to bounce radio waves back to earth (frequencies above 30 MHz pass through the ionosphere rather than bouncing back) and cost much less than single channel tactical satellite systems. Current radios in the US Army inventory include the legacy systems: AN/GRC-106, AN/VRC-213, AN/GRC-193 and the newer systems: AN/PRC-138/RF-5800, the AN/VRC-100 (designed for ground to air, and the ARC-220 (designed for air to ground). The legacy systems provide primarily voice with some low capacity data. The new systems, like the AN/PRC-138, which comes complete with a tactical computer/server, are designed for data transmissions. The hospitals' AM IHFR nets are shown in Figure 3-5.

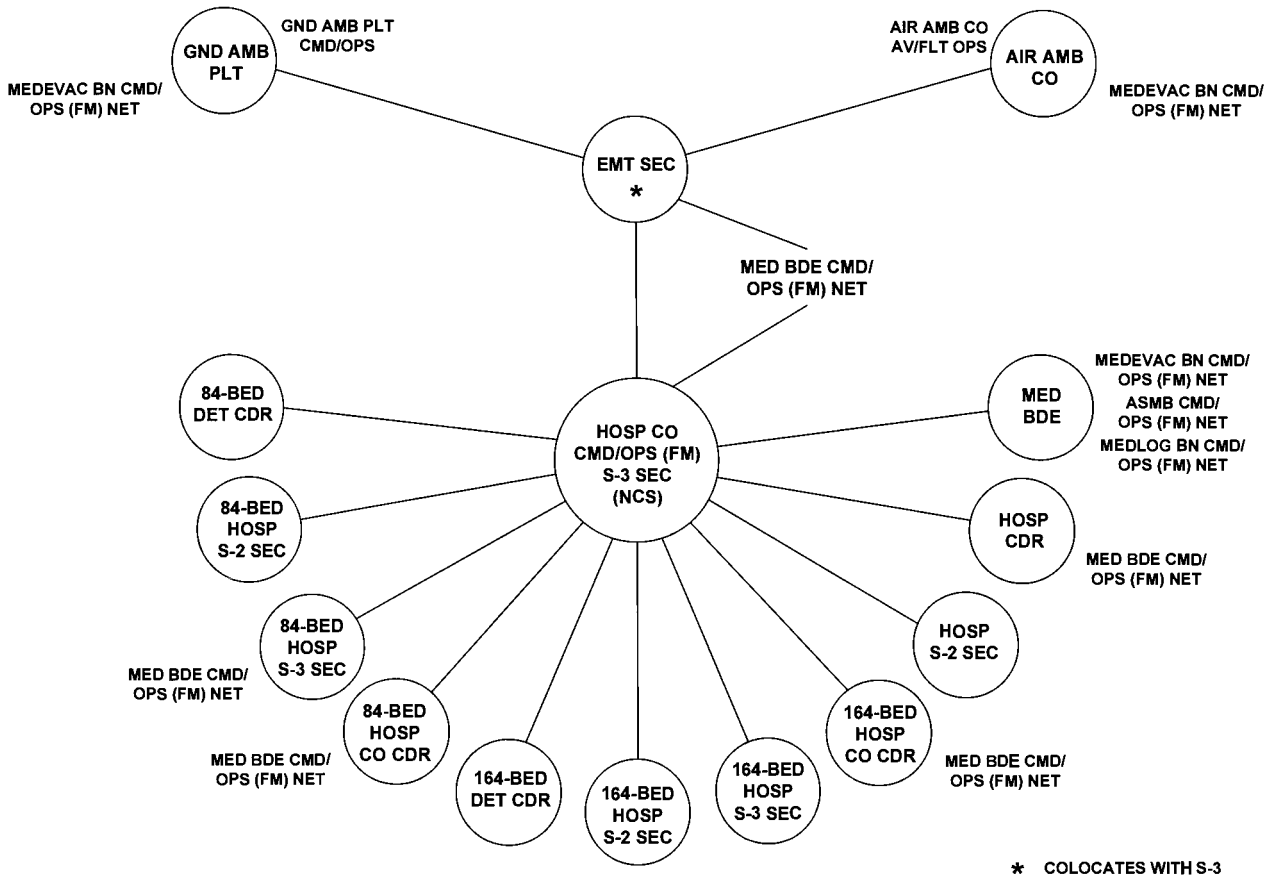


Figure 3-4. Hospital net—FM.

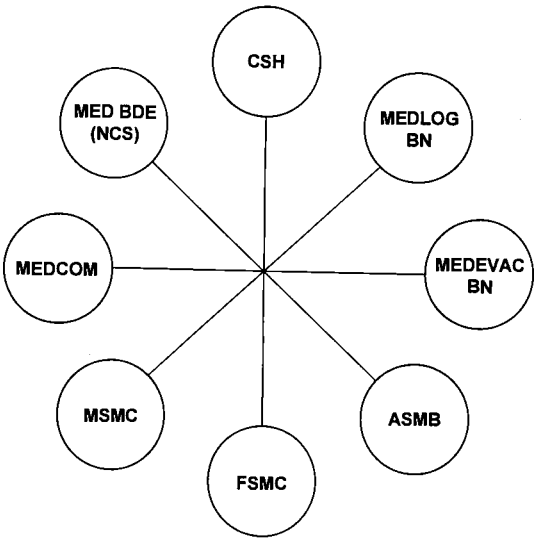


Figure 3-5. Combat support hospitals net—AM-IHFR.

k. Signal Security. As part of the overall security program, all hospital elements must practice signal security (SIGSEC). The hospital operations section is responsible for SIGSEC and COMSEC. Some considerations include—

- Using terrain features, such as hills, vegetation, and buildings, to mask transmissions.
- Maintaining radio-listening silence.
- Using the radio only when absolutely necessary.
- Distributing codes on a need-to-know basis.
- Using only authorized call signs and brevity codes.
- Using authentication and encryption codes specified in the current signal operation instructions (SOI).
- Keeping transmissions short (less than 12 seconds if possible).
- Reporting all COMSEC discrepancies to appropriate authorities.

l. Security Checklist. The following checklist, Table 3-2, provides the information needed to ensure the unit is operating the IS equipment in accordance with AR 380-19 and local unit TSOP:

Table 3-2. Security Checklist

a. Basic Information

Unit identification: _____
Number of system workstations: _____
Unit location: _____
ISSO appointed for the TI: _____
TASO appointed for each system workstation or contiguous group of workstations not under the direct control of the ISSO: _____
Unit security manager's name/title/phone: _____
Supervisor's name/title/phone: _____

b. Access

All personnel who have access to the ABCS have a SECRET security clearance.
Access rosters and personal recognition used to control access to the TI. (Access to the ABCS is only granted once the security clearance and need-to-know is verified.)
All personnel who have access to the ABCS have a need-to-know for all activities.
All systems that connect to the ABCS LAN are properly accredited at the CSS SECRET level and the systems high mode of operation.
All users of systems that connect to the ABCS LAN have a minimum of a SECRET security clearance.

c. Audit

C2P tools are used to capture audit events.
Audit tools are reviewed for evidence of unauthorized access or tampering.

d. Clearing, Purging, and Declassifying Electronic Media

When left unattended, the ABCS components must be placed in a purged, declassified state. All classified magnetic media is removed, switch workstation RAM is purged, and printer RAM is purged.
Floppy disks with classified information stored on them are always treated as classified and not used at the unclassified sensitive level. (Floppy disks can only be purged using a Type I or II degausser that is not furnished with the TI.)

e. Hardware Security

All ABCS components are installed and maintained according to applicable TMs.
All ABCS component failures or malfunctions are documented and reported to the ISSO or TASO. (ISSOs will determine if the malfunctions should be reported as a technical vulnerability.)
Maintenance personnel have SECRET security clearance.
Maintenance personnel who do not have a SECRET security clearance and who do not access classified information during their operations are observed by an authorized individual with a SECRET security clearance, to ensure they perform no obvious unauthorized modifications.
Classified ABCS components are not removed from the shelter by uncleared maintenance personnel.

f. Software Security

System workstation software errors or failures are documented and reported to the ISSO or TASO. (ISSOs will determine if software errors should be reported as a technical vulnerability.)
No unapproved modifications or alterations are made to the system workstation software.

Table 3-2. Security Checklist (Continued)

g. Physical Security

When unattended, the ABCS components are secured with double barrier protection (for example, locked in a military vehicle or in a locked and secured motor pool).
The ABCS is operated in an environment which is authorized for processing SECRET material.
The ABCS components are maintained under the control of cleared, authorized users or supervisors.
Classified information, magnetic media, and other material associated with the ABCS are secured in a GSA-approved container, safe, or Class B vault when not under the direct control of an authorized individual.
The ABCS components are properly declassified prior to being left unattended.

h. Procedural Security

ISSO is appointed.
TASO for ABCS components not under the direct control of unit ISSO appointed.
Unit security manager assists ISSO and TASO in accomplishing ABCS security.

i. Personnel Security

Initial security training and awareness briefing for all switch workstation users and supervisors are given.
Periodic security and awareness training program is given.
All personnel who have access to the ABCS have a minimum of SECRET security clearance in accordance with AR 380-67.

j. Information Security

All workstation removable magnetic media is clearly marked to indicate the classification of information stored on it (SF 707 or SF 710 label).
All workstation printer output is marked and safeguarded as SECRET until reviewed and marked accurately by an authorized individual.
Printer ribbons used by the workstation to print classified information are marked and stored with appropriate classification level.
All classified material, documents, removable magnetic media, printer output, and COMSEC material are secured in a GSA-approved container for securing classified material, a Class B vault, or guarded by an authorized individual.

k. Emergency Destruction

Procedures to destroy workstations to prevent compromise of classified and unclassified sensitive information associated with the switch are in place.
Emergency destruction procedures are in place for ABCS components during tactical movements.
Emergency destruction procedures are periodically rehearsed.

l. Transportation Security

Procedures are in place to protect ABCS components during tactical movements.
Procedures are in place to protect ABCS components during administrative movements.

m. Miscellaneous

SOP is on hand.
The command has conducted a local RMR.

CHAPTER 4

DEPLOYMENT AND EMPLOYMENT OF THE COMBAT SUPPORT HOSPITAL

4-1. Threat Environment

a. Ethnic, religious, territorial, and economic tensions, held in check by the pressures of bipolar global competition, erupted when Cold War constraints dissolved. The world has entered a period of radical and often violent change. The threats today are more diverse, yet less predictable, than during any other period in our history; they are, however, just as real.

b. The US faces no immediate threat to its national survival. Still, our worldwide interests require that we remain engaged in the world. The National Military Strategy notes four principal dangers to which we must be prepared to respond—regional instability, the proliferation of weapons of mass destruction, transnational dangers, and threats to democracy and reform.

c. Regional instability, often based on ethnic or territorial disputes, is evident throughout the world. Somalia, Rwanda, Haiti, and Bosnia are just a few examples of countries where America's interests have been affected by instability. Some regional powers, those with strong conventional armies and aggressive modernization programs, can threaten American interests directly. In addition, thousands of nuclear, biological, and chemical (NBC) warheads and strategic delivery systems exist throughout the world. These weapons of mass destruction could present a very real danger in the hands of terrorists or rogue states. Terrorism, drug trafficking, and other transnational dangers pose a significant threat to all if left unchecked. In response to threats to democracy and reform, the US is committed to strong, active support for nations transitioning into the community of democratic nations. The failure of democratic reform would adversely affect our nation and interests.

4-2. Medical Threat Assessment

a. A critical element of the CHS assessment is a thorough appraisal of the medical threat. This assessment includes the medical threat to the deploying forces and to the residents in the AO. The US soldier is placed at increased risk in stability operations and support operations scenarios as the incidence of and exposure to infectious diseases and environmental hazards are greater in man-made or natural disaster areas and in developing nations. The medical threat is derived through established intelligence channels and from a variety of informational sources outside of the military.

b. The ability to obtain, interpret, and use medical intelligence is critical to the success of the CHS mission. Regardless of whether the action is conducted within the US or abroad, man-made and natural disasters can cause a resurgence of diseases once thought to be at low epidemiological levels. This could result in environmental contamination. A combination of factors can result in the spread of communicable diseases in epidemic proportions and increased opportunity for exposure to NBC hazards. These factors are—

- Disruption of sanitation services (such as garbage disposal or sewer systems).
- Contamination of food and water.

- Development of new breeding grounds for rodents and arthropods (such as in rubble or in stagnant pools of water).

- Disruption of industrial operations.

- Dispersion of biological, chemical, or radiological waste by improper handling or terrorist activity.

(1) Medical intelligence is the product resulting from the collection, evaluation, analysis, integration, and interpretation of all available general health and bioscientific information. Medical intelligence is concerned with one or more of the medical aspects of foreign nations or the AO and which is significant to CHS or general military planning. Until medical information is processed, it is not considered to be medical intelligence. Medical information pertaining to foreign nations is processed by the Armed Forces Medical Intelligence Center (AFMIC). Medical threat information in AOs within the US can be obtained from—

- United States Army MEDCOM.

- United States AMEDD medical centers and activities within the immediate area.

- United States Army Center for Health Promotion and Preventive Medicine (USACHPPM).

- United States Civil Affairs and Psychological Operations Command.

- Local public health officials.

- American Public Health Association (FM 8-33).

- Centers for Disease Control and Prevention.

- World Health Organization.

(2) The special training of PVNTMED personnel, as well as other medical professionals, is used to provide a clear assessment of the medical threat. Preventive medicine personnel are specifically trained and equipped to collect, analyze, and interpret health information. When the assessment includes oral, dental, or maxillofacial considerations, the dental public health officer has similar specialized training in his field. The veterinary officer can provide expertise in the public health ramifications of zoonotic diseases and biological warfare (BW) agents. The chemical corps officer/NCO in the medical brigade can provide expertise on chemical warfare (CW) agents. The PVNTMED officer specializing in health physics can provide expertise on the nuclear and radioactive health threat. These personnel can make recommendations for types of activities to be accomplished and their priority for support. Using these skills maximizes the efficient use of limited CHS resources. For consultation purposes during the assessment, the medical personnel conducting the assessment must have access to all medical professionals within the CHS force and the local medical community.

c. Combat health support planners must acquaint themselves with the currently existing intelligence products. These products include national-level intelligence products such as the Medical Capabilities Studies, the AFMIC MEDIC CD-ROM, and Disease Occurrence Worldwide and access to Intellink that is located at brigade or higher level. These reports are specifically produced to support US military CHS operations conducted outside continental United States (OCONUS). These reports can be obtained through operational and medical intelligence channels (such as the medical brigade/MEDCOM). (Refer to FM 8-10-8 for specific information.)

d. As CHS plans and operations progress, the requirements for additional medical intelligence will occur. All such requirements should be requested through intelligence channels as soon as they are validated; when required, coordination should be effected with local agencies.

e. In OCONUS operations, the CHS planner must make himself aware of the medical threat posed by the disaster (such as continued flooding, earthquakes and after shocks, or further explosions) and groups, factions, opponents, terrorists, or enemy forces operating within the AO. This threat also includes the capabilities and potential use of weapons systems and munitions, such as NBC, directed-energy (DE) weapons or devices, or conventional armaments, and the potential for terrorist attacks or incidents, including the use of CW and BW agents without weapons delivery systems. Combat health support planning and force survivability necessitates that CHS units remain abreast of the complete intelligence picture.

f. The medical threat includes the stress threat. The stress threat encompasses all stressors in the environment which are likely to threaten the mission and the soldier's current and future well being. The baseline stress threat in any deployment includes separation from home, where there may be unresolved problems, and immersion in a continuous military field environment with limited privacy, sometimes in austere and dangerous conditions. Boredom and uncertainty about the mission can cause severe stress. Combat adds the challenge of personal danger and receiving increased US casualties (perhaps mass casualties). Even stability operations and support operations and humanitarian missions may expose US personnel to the suffering, injustice, and dead bodies of innocents, which can cause severe distress or delayed reactions. The hospital's psychiatric staff should receive CSC training in the assessment of the stress threat, and in preventive and treatment interventions. The stress threat, uncontrolled, can result in—

- Misconduct stress behaviors.
- Combat/operations stress reactions (battle fatigue).
- Neuropsychiatric disorders including organic mental disorders (especially in NBC situations).
- Posttraumatic stress disorder and other postdeployment syndromes.

g. Should CHS personnel gain information of potential medical intelligence value while in the performance of their duties, they are required to report it to their S2 or supporting military intelligence element.

h. For additional information on infectious diseases and their prevalence, refer to FM 8-33.

i. For additional information on the medical threat and intelligence preparation of the battlefield, refer to FM 8-10-8, FM 8-55, and FM 34-130.

4-3. Planning Combat Health Support

a. The emerging world situation has resulted in an evolution from a forward-deployed army to one capable of projecting combat power worldwide. Our Army is becoming smaller and primarily CONUS based. For the Army to accomplish the assigned mission, it must rely on its ability to mobilize, deploy, sustain, reconstitute, and redeploy a crisis response force and reinforcing forces, if required. It must be able to project power from CONUS or forward presence locations in response to requirements from the National Command Authorities. To meet the challenge, the AMEDD must be proactive in projecting CHS. Once the mission is assigned, the commander and his staff use the planning process to determine the most effective means to accomplish the mission. This process enables the commander to estimate, analyze, and determine the courses of action to be undertaken. These courses of action are designed to maximize the accomplishment of the mission.

b. Planning at the CSH echelons entails preparing plans for a variety of situations, such as—

- Activities to be conducted at the various defense readiness condition (DEFCON) postures.
- Split-based operations.
- Hospital operations conducted in an NBC environment.
- Joint and multinational deployments.
- Relocation of the hospital complex, to include patient disposition.
- Contingency missions (such as humanitarian assistance or disaster relief).
- Mass casualty situations.
- Rear AO support.
- Reinforcement or reconstitution support for forward medical elements.
- Combating terrorism activities.

c. To be complete, CHS planning must consider all functional areas within the AMEDD. These functional areas are—

- Medical evacuation and medical regulating. Refer to FMs 8-10-6, 8-10-26, and 8-55.
- Hospitalization. In addition to this publication, refer to FM 8-55.

- Combat health logistics/blood management. Refer to FM 8-10-9.
- Medical laboratory services. Refer to FM 8-10.
- Dental services. Refer to FM 8-10-19.
- Veterinary services. Refer to FM 8-10-18.
- Preventive medicine services. Refer to FMs 8-10-17, 21-10, and 21-10-1.
- Combat stress control. Refer to FMs 8-51 and 22-51.
- Area medical support. Refer to FMs 4-02.24 and 8-10-1.
- Command, control, communications, computers, and intelligence. In addition to this manual, refer to FMs 8-10 and 11-43.

4-4. Mobilization

a. Concept of Operations.

(1) In the event of contingencies in support of sustainment and support operations or war, the DOD initiates appropriate action for the deployment of forces in response to the scenario. Based on the situation, selected Active Component (AC) and Reserve Component (RC) CSHs and other units are alerted through command channels. For those units located in CONUS, the United States Army Forces Command (FORSCOM) uses the Time-Phased Force Deployment List (TPFDL) based on the theater commander's requirements, and the air and sea resources available. For deployable AC hospitals, an increase in DEFCON is directed by the post or installation commander, or by higher headquarters. For RC hospitals, mobilization notification constitutes an increase in readiness posture.

(2) Deployment operations for hospital readiness validation are controlled through the post or installation emergency operations center (EOC) according to established plans and regulations. The EOC plans and coordinates all deployment preparation support for the deploying hospital and monitors and controls all facets of the deployment operation, to include reporting to higher headquarters.

(3) The hospitals may deploy by land, sea, or air (or a combination of these modes) from locations designated by higher headquarters. Priority of effort is given to those modes of movement outlined in current plans.

(4) Active Component hospitals maintain the capability for emergency deployment on short notice to execute assigned missions.

(5) Mobilizing RC hospitals must attain and maintain the capability for mobilizing on short notice and arriving at their designated mobilization site according to unit mobilization plans.

(6) Once mobilization is validated, hospitals prepare for deployment on short notice (72 hours or less). During validation, the appropriate status reports are submitted to higher headquarters.

b. Conduct of Operations.

(1) Commanders of deploying hospitals develop movement plans and TSOPs to accomplish the necessary preparations for deployment. Provisions are made for accomplishing all mandatory training and other requirements during all phases of the deployment. The checklists contained in Appendix K can be used as a guide for developing deployment operation procedures in support of movement by air and surface modes, or a combination thereof. The checklists are applicable to both AC and RC units. **The checklists are detailed only as a guide for commanders**. Installation mobilization stations and/or higher headquarters may prescribe different procedures for your unit.

(2) Active Component hospitals maintain the capability necessary to achieve a deployment posture in the time required by any alert warning order or deployment instructions received. For planning purposes, the readiness posture maintained is consistent with the shortest notification period presented in the mobilization plan.

(3) Reserve Component hospitals maintain the readiness posture necessary to meet planned deployment dates contained in current FORSCOM and mobilization documents. Upon arrival at the designated mobilization site, hospitals are placed in an increased or advanced deployability posture, based on the published priorities of plans for which the hospitals are listed. The hospitals are managed through the RC chain of command, with input by the mobilization installation commander during the premobilization period.

(4) All hospitals are scheduled for deployment validation by unit line number, based on the published validation schedule. Hospitals can be expected to deploy within 72 hours following validation. Actual deployment date and times are directed by higher headquarters.

4-5. Deployment

a. When directed by higher headquarters through the port call or airlift message, the CSH will move to the port of embarkation (POE) for deployment. Deployment from the POE will be as directed by the US Transportation Command. Strategic deployment requirements are identified in Appendix H. Upon arrival at the theater point of entry, it is essential that contact with the assigned MEDCOM or medical brigade be made immediately. Normally, the MEDCOM or medical brigade has liaison personnel meet and assist the hospital staff with coordination and movement to its AO. As equipment and supplies are off-loaded, they are moved to a designated receiving area for consolidation and movement. An inventory for accountability and damage assessment is conducted. Vehicles are serviced and necessary repairs are made, or coordination is made with the supporting maintenance element for the repairs. Documentation for replacement of unusable supplies or equipment damaged beyond repair is initiated through the MEDCOM or medical brigade headquarters element. Vehicle loads are adjusted for convoy operations. For equipment that was transported separately from the hospital, coordination is made for receiving and transporting it upon arrival. Once the hospital has moved to its AO, the MEDCOM or medical brigade staff elements

conduct formal personnel in-processing and an orientation on current operating policies and procedures. The orientation includes information on the following:

- Mission update, to include geographical support area.
- Combat health support issues.
- Medical rules of engagement.
- Force protection measures and rules of engagement.
- Medical support to contractors.
- Host-nation support.
- Local laws and customs.
- Threat update.
- Security requirements.
- Personnel restrictions.
- Personnel replacements.
- Uniform requirements.
- Emergency warning signals.
- Religious support.
- Vehicle and unit movement requirements.
- Geneva Conventions (see Appendix L).
- Supply support activities and procedures (all classes).

b. In a Force Projection Army, METT-TC will drive the amount of supplies required to support the force. For planning purposes, the hospital normally deploys with 10 days of medical supplies; the medical assemblage for each work area contains a basic load of 3 days of supplies; and the medical supply set maintained by the supply and service section contains a 7-day basic load for the entire hospital. In a maturing theater, medical resupply is accomplished by preconfigured resupply packages until the MEDLOG battalion has been established. These "push packages" are throughput directly to the hospital via the transportation system. These packages may be pre-positioned "mobilization stocks," or may be built and shipped from the Defense Logistics Agency (DLA) depot system. Hospital logistics personnel coordinate

with their next higher command headquarters for all logistical support to include resupply. Early deploying hospitals that arrive prior to their higher medical C2 headquarters must coordinate with port transportation personnel for shipment and receipt of supplies and equipment. Once the MEDLOG battalion has been established, hospital logistics personnel coordinate directly with the MEDLOG battalion for resupply of Class VIII materiel. All other resupply is requisitioned through higher headquarters with the appropriate supporting organization. Effective coordination is the key to responsible logistical support. To be effective, coordination must be early and it must be often.

c. For maximum use of the CSH, the entire organization should deploy together. However, due to its limited mobility and the availability of transportation support, it may be necessary to deploy by echelons.

4-6. Concept of Employment

During the initial stages of military operations, CHS to US forces will be austere and limited to the unit's organic medical capabilities. A short theater evacuation policy is normally established and tailored hospital support is required. The contingency and projected patient workloads will dictate the composition of the hospital. The modular design of the CSH allows the commander to plan employment of hospital assets as needed.

a. *Corps Combat Support Hospital*.

(1) The medical brigade will provide C2 and support to assigned hospitals. The CSH is organized as stated in paragraph 2-4 and as shown in Figure 2-1. It will provide hospitalization, consultation, and outpatient services for all classes of patients, those that require stabilization and those that will be returned to duty within the theater evacuation policy. Patients will be received from MTFs located in the division and corps, medical companies of the ASMB, and the FST. The CSH will provide medical and dental treatment to contractors as specified in existing policy, the contingency plan, OPLAN, operation order (OPORD), and contract.

(2) The 84-bed corps hospital company is a complete hospital module capable of stand-alone operation for up to 30 days without further augmentation from the hospital, but will require logistical support. Its flexibility, versatility, and incremental deployability provide the hospital with a split-based operation capability. When deployed in a split-based mode, it will require augmentation from the HHD. The 84-bed hospital company is 35 percent mobile.

(3) With the 84-bed hospital module deployed, the remaining HHD and 164-bed hospital module is still fully functional. The remaining HHD and 164-bed hospital has no mobility.

(4) The corps 84-bed hospital company may be echeloned for strategic deployment as a first increment of 44 beds with immediate follow-on of the remaining 84-bed company. The corps 84-bed hospital company may also be deployed in support of contingency operations where a complete hospital is not needed.

(5) The composition of the 44-bed first increment will be as determined by the hospital commander based on METT-TC. It will require 100 percent of its TOE equipment and supplies to be

transported in a single lift, using authorized vehicles. Section III of Appendix H contains planning factors for a first increment (44-bed element).

(6) The hospital's capability may be increased by attaching medical and surgical hospital augmentation teams. The hospital augmentation teams centralize and efficiently manage selected specialty capabilities that are required within the theater, but not required at every hospital (Appendix A—G). The Hospital Augmentation Team, Special Care may be attached in support of stability operations and support operations. The CSH depends upon the Medical Detachment, Minimal Care to provide required minimal care beds. The corps MEDCOM and medical brigades will direct the employment of the CSH and its subordinate and attached elements. See Appendix H for additional hospital planning factors.

(7) The hospital, by virtue of its dependency on other support units, must locate in an area where it can be easily supported by elements of the corps support group, the corps signal brigade, the corps engineer brigade, and the COSCOM movement control center (MCC). Direct coordination between the CSH is usually required with—

- The corps support group and its subordinate elements for specific-type logistics support (to include MA and evacuation support for deceased patients).
- The corps signal brigade for external signal support.
- The corps contingency engineer manager for engineer support.
- The COSCOM MCC for transportation support and highway clearance.
- The corps provost marshal or base commander for security.
- The MEDCOM or medical brigade for air and ground ambulance support.

(8) Appendix M depicts an example of a functional layout using the DEPMEDS tent, extendable, modular, personnel (TEMPER) and ISO system. Paragraph H-3 provides an estimate of hospital operational space requirements.

(9) Because of its size, relocating the corps CSH should be limited. For planning purposes, this unit may be required to move on an average of one time every 25 days. The average move will be approximately 100 kilometers. With required personnel, it is estimated that 72 hours are needed to erect the hospital completely for operations. The same amount of time is needed to prepare for relocation. The commander may designate certain hospital elements to be erected on a priority basis to expedite the receiving of patients upon relocation.

(10) The size and composition of health services in support of military operations will be tailored based on—

- Mission.

- Size of force being supported.
- Projected patient workloads.
- Anticipated civic action programs.
- Availability of evacuation assets.
- Evacuation policy.

b. Echelon Above Corps Combat Support Hospital.

(1) The medical brigade will provide C2 and support to the EAC hospitals. The EAC CSH is organized essentially the same as the corps CSH as noted in Chapter 2. The EAC CSH provides hospitalization for all classes of patients, those that require stabilization for further evacuation and those that will be returned to duty within the theater evacuation policy. Patients will be received from CSHs located in the corps, the medical companies of the ASMB providing Echelon II support at EAC, and the EAC supported area.

(2) The EAC CSH will normally deploy as a 248-bed hospital. The EAC 84-bed and 164-bed units will not normally be deployed as separate modules. The EAC hospital has no organic mobility. It is authorized limited vehicles for administration and housekeeping functions only. The EAC MEDCOM and medical brigades will direct the employment of the hospital and its subordinate and attached units. See Appendix H for additional hospital planning factors.

(3) The hospital's capability may be increased by attaching medical and surgical hospital augmentation teams (see Appendix A—G).

(4) The EAC hospitals should be located where they can best acquire patients from the CZ and COMMZ. By virtue of their lack of mobility and dependency on COMMZ support units, their location should be in an area where they can be easily supported by elements of the TSC, the theater signal brigade, the district contingency engineer manager, and the TSC Movement Control Agency.

4-7. Hospital Displacement

a. Concept of Operations.

(1) The MEDCOM or medical brigade commander moves the CSH in support of sustainment operations. Hospital displacement may be in response to forward moves in support of tactical operations, or rearward moves during a retrograde to maintain appropriate distances from the forward line of own troops (FLOT). The MEDCOM or medical brigade commander normally issues orders, either verbally or in writing, to the hospital commander. Frequently, the time to respond to orders is short; therefore, the hospital commander must disseminate his guidance to his staff in the most expedient method. Upon receiving the commander's guidance, the hospital staff conducts the mission analysis, incorporating changes

based on new information or situation. The hospital saves time by rehearsing moves, using knowledge from past experience, and maintaining a detailed TSOP.

(2) The hospital operations section develops the OPORD in accordance with the MEDCOM's or the medical brigade's plan, FM 8-55, FM 101-5, and the TSOP. The hospital commander, in consultation with the hospital XO, approves the OPORD. The hospital commander ensures that the move is coordinated with higher headquarters and all supported elements. All supported elements must be aware of when medical operations at the current location will be curtailed and the date and time of opening medical operations at the new site. Hospital displacement necessitates the transfer of patients and medical operations to other MTFs. To minimize hospital operations disruption, the CSH should move in echelons. Displacement by echelons is contingent upon the higher commander's intent, the tactical situation, and the availability of support requirements.

b. Conduct of Operations.

(1) *Warning order.*

(*a*) A move is usually initiated by a warning order issued by the MEDCOM or medical brigade headquarters. The warning order serves notice of a contemplated action or order that is to follow. The amount of detail included in a warning order depends on the time available, the means of communications, and the information necessary for the hospital commander. Warning orders are brief oral or written orders.

(*b*) Upon receiving the warning order, the hospital commander analyzes the mission and provides planning guidance to his staff. Using the MEDCOM's or medical brigade's service support annex, status reports, and other appropriate documents, the hospital staff formulates the hospital service support estimate for the commander's approval. (Field Manual 8-55 discusses staff estimates and functions in greater detail.) With the acceptance and approval of the staff estimates, the hospital commander provides his decision and concept of operations. Concurrently with the staff estimate sequence, other hospital personnel conduct preliminary equipment checks and equipment loading procedures. Based on the commander's decision, the patient administration division (PAD) coordinates with the MEDCOM or medical brigade to effect the transfer of patients to other MTFs.

(*c*) In preparation for displacement, the hospital commander should organize the hospital into manageable echelons, preserving hospital integrity as much as possible. Review paragraph 2-3 for additional planning considerations. Preparation for displacement requires—

- Identifying external support requirements; for example, MHE.
- Phasing down and transferring hospital operations.
- Patient movement/transfer.
- Performing map, ground, and/or air reconnaissance of the routes, and selecting the new site when possible.

- Selecting routes.
- Designating start points (SPs) and release points (RPs).
- Reconnoitering the route to the SP.
- Providing for fuel, security, maintenance, supply, and equipment evacuation.
- Determining the march order (echelons), rate of march, maximum speed of vehicles, catch-up speed, and distance between vehicles.
- Establishing checkpoints and halts.
- Establishing communications security procedures.
- Issuing strip maps.
- Dispatching reconnaissance and advanced parties.
- Controlling traffic.
- Issuing orders.

(2) *Operation orders*.

(*a*) The operations officer has staff responsibility for formulating, publishing, and obtaining the commander's approval of and distributing the OPORD. The OPORD provides hospital staff and personnel the information needed to carry out an operation. Preparation of this order normally follows the completion of area reconnaissance and an estimate of the situation. When time is available and the existing tactical situation conditions prevent detailed planning or area reconnaissance, the MEDCOM or medical brigade prepares an initial march plan and issues fragmentary orders (FRAGOs) to modify these plans as needed. If conditions and time permit, information in the OPORD includes—

- Destination and routes.
- Rate of march, maximum speeds, and order of march.
- Start points and SP times.
- Scheduled halts, vehicle distances, and RPs.
- Required communications.
- Strip maps.

(FM 101-5 contains more detailed OPORD information.)

(*b*) Each hospital division or section reports its supply, vehicle, equipment, workload, and maintenance status to the operations officer. This information is used in coordination with higher headquarters to finalize the convoy organization, compute additional transportation and external support requirements, and perform march computations. (For additional information on march computations, see FM 55-30.)

(3) *Area reconnaissance*.

(*a*) The MEDCOM or medical brigade headquarters normally prescribes the reconnaissance route. The hospital operations section uses a map reconnaissance in such cases to confirm checkpoints, identify problem areas, and begin planning positions of the CSH in the new area. If the route is not prescribed and the CSH is not included as part of a reconnaissance party with other units, the operations section briefs the reconnaissance team on the displacement plan and provides the team with a strip map and the designated mission-oriented protective posture (MOPP) level and notifies higher headquarters of the route selected. The composition of the reconnaissance team is directed by the hospital commander.

(*b*) The reconnaissance party wears the appropriate MOPP gear based on the threat analysis and monitors all radiological and chemical detection devices. It performs duties to—

- Verify map information
- Note capabilities of road networks.
- List significant terrain features and potential problem areas.
- Compute travel times and distances.
- Perform route and ground reconnaissance to include hospital site selection and layout. (See TC 8-13 for a detailed discussion on site selection, layout, and support requirements.)

(4) *Advanced party*. The advanced party moves before the main body and is dispatched as directed by the hospital commander. Its composition is recommended by the medical operations officer and approved by the hospital commander. It prepares the new site for arrival of the main body. The advanced party performs duties to—

- Conduct a security sweep of the new site to ensure the area is free of enemy activity. This is normally done by security support forces.
- Position chemical alarms.
- Establish communications with higher headquarters and old location.
- Designate boundaries of hospital elements, based on unit defense plans and consistent with types of weapons and personnel availability.

- Increase security by manning key points along the perimeter.
- Establish a command post.
- Stake the hospital layout (see TC 8-13).
- Establish landline communications for critical areas.
- Ensure personnel follow dispersion and other measures.
- Position personnel to guide main body from the RP to designated locations.

(5) *Main body*. The main body moves as directed in the OPORD. The last echelon normally closes out any remaining operations, ensuring the old site is clear of any intelligence evidence valuable to the enemy, and moves to the new site. This echelon includes maintenance elements to deal with disabled vehicles from the rest of the convoy. It also picks up guides and markers along the route. As the main body arrives at the new site, it is met by the advanced party and guided to designated positions. Erection of the hospital and the establishment of hospital operations follows the priorities set by the commander.

(6) *Crossing an NBC-contaminated area*. The hospital should bypass all biological or chemical areas. The hospital should avoid nuclear areas at all cost. If the hospital has no recourse but to cross a contaminated area the following are recommended procedures:

(*a*) *Operations section*.

- The operations officer conducts a map reconnaissance of the area and briefs the commander on the best possible route.
- Based on the commander's approval, a route reconnaissance is conducted prior to moving the convoy through the contaminated area.
- The reconnaissance team wears the appropriate MOPP level and carries monitoring equipment.
- The route selected should minimize hospital exposure when crossing the area.

(*b*) *Convoy operations*.

- Prior to convoy operations, the commander designates the MOPP level.
- The convoy travels at a maximum safe speed with no scheduled stops within the contaminated area.

- The lead vehicle of each segment of the convoy has monitoring capabilities and survey instruments, with a map indicating areas of contamination. The map includes data from the reconnaissance party report. Continuous monitoring is conducted through the contaminated area.

- Spacing of vehicles should take into consideration dust generated by the next forward vehicle.

- Disabled vehicles are abandoned after personnel are recovered with notation of location.

(*c*) *Decontamination*.

- Immediately upon completion of the move, the hospital is responsible for decontaminating its personnel and equipment (see FM 3-5). Decontamination beyond the capability of the hospital will be requested from the supporting chemical company.

- The decontamination site is annotated on the map.

(*d*) *Reports*. Upon completion of the move, the operations officer reports immediately to the hospital commander and higher headquarters any contamination acquired during the move. Other required reports are also included.

4-8. Emergency Displacement

When confronted with an adverse tactical situation and/or when directed by higher headquarters, the CSH may be required to relocate expeditiously. The movement procedures identified above may be modified to accommodate the situation. As soon as the threat appears inevitable, all available means are used for evacuation of casualties, hospital personnel, and equipment. Wounded soldiers have priority on transportation assets. The critically wounded who cannot be moved are left behind with medical personnel, supplies, and equipment. The decision to leave patients behind is made by the tactical commander. The medical staff officer keeps the tactical commander informed in order that he may make a timely decision. Medical supplies and equipment are not intentionally destroyed, even to prevent them from falling into enemy hands. Paragraph 5 of Article 12, Geneva Convention for the Amelioration of the Condition of the Wounded and Sick in the Armed Forces (GWS), provides that if we must abandon wounded or sick, we have a moral obligation to, "as far as military considerations permit," leave medical supplies and personnel to assist in their care.

4-9. Nuclear, Biological, and Chemical Operations

a. Considerations.

(1) A major consideration for the hospital commander is the potential use of NBC weapons against friendly forces. These weapons through use, or threat of use, can cause shifts in CHS and courses

of action. Although the hospital may not be specifically targeted, locating it close to other CS and CSS units, major airfields, and road junctions makes it vulnerable to NBC weapons. The hospital's TEMPERs are relatively permeable. Therefore, when NBC weapons could be used, establish increased protection as soon as practical or hospital assets can be expected to experience a significant amount of contamination and damage when exposed to NBC strikes.

(2) The avoidance of contamination is essential for successful operations when faced with an NBC threat. Avoiding contamination allows the hospital to maintain its level of support and preserves CHS by keeping soldiers out of increased NBC protective measures.

(3) Force protection is imperative in this environment. The hospital commander can ensure unit survivability by—

- Preparing the unit for NBC operations (such as using chemically protected DEPMEDS).
- Establishing decontamination priorities/procedures.
- Ensuring hospital personnel use NBC contamination avoidance procedures.
- Using terrain for shielding against effects of NBC weapons.
- Establishing improved positions (berms, trenches, sandbags, and additional cover) to prevent contamination of key equipment, shelters, and supplies.
- Establishing NBC protective (MOPP) requirements and procedures.
- Ensuring NBC detectors are properly employed.
- Ensuring adequate planning has taken place to defend against a biological attack.
- Train relentlessly in NBC defense procedures until they become ingrained, while maintaining a realistic but success-oriented attitude.

(4) Because of the unique requirements and challenges of nontactical NBC hazards by hospital elements during stability operations and support operations, the ability to avoid contamination can and will be extremely limited. The commander and the hospital staff must ensure that—

- Some methods and locations for decontamination of hospital patients and assets are in place and operational.
- The spread of contamination in noncontaminated areas by air/ground evacuation, support operations, and decontamination operations is limited.

b. Collective Protection.

(1) With collective protection, the CSH can operate in an NBC environment. However, individual and unit performance is degraded when operations are conducted in MOPP. Routine medical

tasks and other tasks, such as maintenance, vehicle operation, and night operations, become infinitely more difficult when conducted in MOPP 4. The degradation caused by the hospital operating in MOPP can be significantly decreased by conducting the actual operation in field training exercises while in MOPP gear. All hospital operations must be routinely practiced while in MOPP gear for this degradation to be minimized.

(2) The DEPMEDS-equipped patient care areas of the US Army Force XXI 84-bed and 164-bed hospitals will employ the chemically protected (CP) DEPMEDS. It will protect patient and staff from biological and chemical agents, but will not protect personnel or patients from the thermal, blast, and initial radiation effects of nuclear weapons; however, it will provide some protection against the fallout effects. Areas of the hospital that are not included in the CP DEPMEDS are administrative areas, food service, supply (including Class VIII), and staff quarters. The system includes—

- Chemical/biological (CB)-hardened liners for TEMPERS and passageways.
- Chemical/biological-filtered and conditioned (heated or cooled) air.
- Chemical/biological-hardened ambulatory, litter, and supply air locks.
- Chemical/biological-hardened latrines.
- Chemical/biological-hardened seals for ISO shelters.
- Chemical/biological-protected water supply system.

(3) When the threat of NBC action is anticipated in the AO, the collective protection shelter (CPS) components must be set up as the hospital is being established. The system cannot be set up in a hospital that has already been established; to do so requires the hospital to be closed, all TEMPERs to be struck, and erected with the M28 liners installed during the erection process. To establish CPS in a DEPMEDS-equipped hospital, follow the procedures as described in DEP 10-5410-283-14&P. Training Circular 8-13 provides instructions on establishing a DEPMEDS-equipped hospital (without CPS). Figures M-4 and M-5 present suggested layouts of the CP DEPMEDS protected patient care areas of the CSH.

(4) When employing CP DEPMEDS, provisions for waste disposal and protected water and food supplies within the system are established. Additionally, Class VIII supplies must be protected from contamination. Supplies not in use or needed in the protected operational areas are stored in medical chest, shipping containers, or wrapped in layers of plastic that are inside covered areas, such as closed military-owned demountable containers (MILVANs) or tents. When contamination is present, only open these storage areas for operational area emergency resupply. Use plastic sheeting or other material to provide an additional barrier between the supplies and the contamination. Wrap supplies in plastic or other barrier material for movement from the storage area to the resupply air lock of the CPS.

- A water supply system with distribution hoses is established inside the CP DEPMEDS areas. Pumps continuously circulate the water from the storage tank through the hose system back to the storage tank. The continuous circulation ensures that the chlorine residual is maintained in the water supply. Personnel in areas that are not included in the continuous flow system must draw water from

the system and carry it to their work areas in 5-gallon water cans or other containers. Water resupply is accomplished by passing a hose through the utility port at the end of the TEMPER and M28 liner for a connection to the water transport vehicle. The ends of both hoses must be decontaminated with a 5 percent chlorine solution before connecting together. The vehicle must have a tank or water supply container that is NBC protected to ensure that the water supplied is free of NBC contamination.

- Rations, as determined by the hospital commander, should be available within the protected area for personnel and patients. Under emergency conditions, the commander can authorize feeding patients meals, ready to eat (MRE) rations for limited periods of time (up to 72 hours), if they are able to chew and swallow. However, attempts must be made to ensure the required types of rations for patient feeding are available in the CPS. The rations can be stored in any available space; however, the rations must be protected from exposure to possible contaminants, especially liquids. Ration control measures are established to ensure that the rations are only consumed as provided for in the hospital TSOP.

- Chemically and biologically protected latrine systems are included in the CP DEPMEDS. The latrines contain bedpan wash areas. The waste from the latrines is collected in an outside receiving container. The waste is removed from the container and disposed of as outlined in the unit TSOP.

- Solid waste (including medical) must be placed in plastic bags. Seal the top of the bags to prevent spillage, odors, or spread of infections/disease. **NEVER** overfill the bags; always leave enough room in the bag to make a good seal. Place the sealed bags in the supply air lock. Inside personnel close the inner door to the air lock. Outside personnel check to ensure that the inner air lock door is closed before opening the outside door. Remove the bags and take them to the designated waste collection/disposal site. Disposal may be by burial on site or by transport to a designated disposal facility. Transport may be by organic vehicles or contractor support vehicles. The specific technique for disposal will be outlined in the unit TSOP.

- All liquid waste produced within the CP DEPMEDS is collected through a piped liquid waste system to a central collection container. The waste container for the latrines may be used to collect the liquid waste from the operational areas of the CP DEPMEDS. The container is emptied and the waste disposed of as outlined in the unit TSOP.

c. Hardening of Equipment.

(1) *International Organization for Standardization shelter.* To harden the ISO shelters, seal all seams and openings of the ISO to prevent the entry of CB agents. The seals connecting the various sides and floor of the shelter may be a CB-hardened material; thus providing a seal to the shelter. When the seals are not of a CB-hardened material, the seams must be taped to provide a hardened barrier over the soft seals. Any openings not being used for introduction of support power lines, waterlines or lines for wastewater must be sealed to prevent entry of CB agents. All access panels must be securely closed to prevent entry of vapors.

(2) *Vestibules.* The vestibules connect TEMPERs to TEMPERs, ISOs to ISOs, and ISOs to TEMPERs. To harden the vestibules, install the CB liners inside and fasten the ends to the liners of the TEMPER or to the doors of the ISOs. Vestibule liner connectors are provided for use at the entry of each ISO.

(3) *Air handler equipment*.

(*a*) The environmental control unit (ECU) is CB hardened. The system can be operated without the CB filters. When required to operate in the CB mode, the fresh air intake on the ECU is closed and the CB filter blower is turned on drawing fresh air through the filters to support the ECU and to provide clean air for the CPS. Additionally, recirculation filters are placed within the shelter system to remove any agent that may have entered through any of the entry/exit areas or through breaches in the shelter system.

(*b*) When heaters are required, they must be hardened to prevent entry of contamination. The CB filter units are connected to the fresh air intake side of the heater and the heated air discharge side of the heater is connected to the air supply of the TEMPER/ISO.

d. Additional Information. For detailed information on CHS operations in an NBC environment, see FM 8-10-7. For detailed information on treatment of NBC casualties, see FM 8-9 and FM 8-285.

4-10. Risk Management

Risk management is the process of making operations safer without compromising the mission. It is a tool that allows soldiers to operate successfully in high-risk environments. Leaders at every level have the responsibility to identify hazards, to take measures to reduce or eliminate those hazards, and then to accept risk only to the point that the benefits outweigh the potential costs. (For more information, see FM 100-14.)

4-11. Force Protection and Security Measures

a. Force protection is a complex process in which each action impacts upon many others. Planning for force protection is a continuous process. In stability operations and support operations scenarios, force protection can pose significant challenges. Medical unit structure only considers the medical tasks and is not augmented for force protection; force protection can be achieved with reduced medical capability.

b. The hospital commander is responsible for providing security for his unit and the patients under his care. In some scenarios, a combat or CS unit may provide security forces to assist in the defense of medical units. In other situations, the medical unit may not be collocated with other types of CSS units and the medical commander must then provide completely for his own security. In the corps/EAC, the CSHs are normally located in areas of troop concentration in a base cluster. The base cluster commander has the overall responsibility for the security of units located within his base cluster.

c. In stability operations and support operations, medical units may be deployed into a given geographical area prior to the deployment of combat and CS forces. During humanitarian assistance and disaster relief operations, the perceived terrorist threat may be low, but the commander must ensure that his security measures are adequate for the appropriate threat level. Further, he must ensure he has the capability to increase these protective measures should the operational scenario change and mission creep occur. If the political, social, or economic status of the HN or region deteriorates, an increase in the

potential for terrorist activity may also be experienced. The hospital commander must continuously evaluate the potential for terrorist activity and adjust his force protection plan accordingly. See FM 100-14 for definitive information of risk management.

d. Unit and individual protective measures are discussed in detail in Joint Publication 3-07.3.

CHAPTER 5

INFORMATION SYSTEMS OF THE COMBAT SUPPORT HOSPITAL

This chapter is divided into two sections. Section I describes the TAMMIS which is the current information management system used by the CSHs at corps and EAC. Section II provides an overview of medical information management systems currently underdevelopment to be employed on the battlefield.

Section I. THEATER ARMY MEDICAL MANAGEMENT INFORMATION SYSTEM

5-1. Theater Army Medical Management Information System Support

a. The TAMMIS supports the information management requirements for Army of Excellence field medical units in peacetime and wartime. It is not present in divisional units except for the DMSO section of the division support medical company. The TAMMIS is an automated microcomputer system designed to assist commanders and staff by providing medical information in the following areas:

- Medical assemblage management.
- Medical maintenance.
- Medical patient accounting and reporting (MEDPAR).
- Medical patient accounting and reporting C2.
- Medical regulating (MEDREG).
- Medical supply.

b. Controlled accessibility is a TAMMIS feature included both to simplify the system and to increase security. During system setup, the local manager establishes each user's accessibility to the system through system setup files; the user may review only the portion of the system that pertains to his job responsibilities. The local manager can also adjust his unit's system to accommodate local requirements and the operating environment.

c. The TAMMIS has communication capabilities and can relay information between units in various ways. The preferred medium is via modem; however, direct communication between computers through a LAN or MSE may be utilized. When direct electronic communications links are not available, users may pass information by courier via floppy diskette, tape, or hard copy.

d. This chapter will not address the medical regulating and medical regulating C2 functionality provided by the TAMMIS-MEDPAR subsystem. See FM 8-10-6 and JP 4-02 for information on medical regulating.

5-2. Medical Assemblage Management

a. The TAMMIS-MEDASM automates the management of medical assemblages for facility commanders. The system provides the commander with the capability to track overages, shortages, quality control information, and locations for each assemblage. The system operates within the corps and COMMZ. Medical assemblage management information enhances the commander's ability to determine the readiness status of his medical assemblages.

b. The TAMMIS-MEDASM provides the user with automated capabilities in the following areas:

(1) *Assemblage management processes*. The system provides a grouping of individual processes that are used for item, allowance, and quality control management. Collectively, these individual processes allow accurate predictions of hospital readiness based on asset availability.

(2) *Request, receipt, due-in management*. The system includes separate processes that expedite ordering of shortage items, recording receipts, and managing due-in orders for required items.

(3) *System setup procedures*. This system includes a group of processes that define the operating environment to the medical assemblages. These procedures describe the parent department/ section, its supported assemblages, sources of supply support, and ordering processes.

(4) *User designed reports*. This process allows the user to create, modify, delete, and print reports of the user's own design. The TAMMIS-MEDASM will also provide the user with the capability to prepare reports listing sub-hand receipt durable items and nonexpendable pieces of equipment within assemblages.

5-3. The Medical Maintenance System

a. The TAMMIS-MEDMNT supports the scheduled maintenance and repair of medical equipment essential for treating patients. The system is designed to operate at the division medical supply office (DMSO) within the US Army divisions, at the MEDLOG battalions, and at TOE hospitals within the corps and COMMZ. The system is used at each of these locations to manage equipment maintenance and repair for equipment owned by the supporting and supported units. The TAMMIS-MEDMNT will operate on commercial off-the-shelf (COTS) boxes.

b. The TAMMIS-MEDMNT provides the user with automated capabilities in the following areas:

(1) *Work order processing*. Allows the scheduling, assigning, tracking, and reporting of medical equipment maintenance work orders. It also allows the user to identify and track the status of equipment directly supported by local medical maintenance personnel.

(2) *Supply management*. Allows the unit to maintain information on stockage of items required to support the medical maintenance mission. It also allows the maintenance unit to interface with the supply system through the unit-level logistics system to requisition nonmedical repair parts.

(3) *Periodic processing and reporting*. Generates a monthly performance report that provides scheduled and unscheduled maintenance service information to be used by local management or higher

commands. A C2 report provides the commander with up-to-the-minute status of all readiness-significant items of medical equipment. It also provides a Materiel Condition Status Report (DA Form 2406) which passes unit readiness information through the command.

(4) *Maintenance system setup procedures*. Defines the local environment used to control system processing by identifying supporting activities and supported customers and by processing default data.

(5) *User designed reports*. This process allows the user to create, modify, delete, and print reports of their own design.

5-4. Medical Patient Accounting and Reporting

a. The TAMMIS-MEDPAR supports facility commanders in the management of patients and resources. The system tracks patients for casualty reporting and personnel strength accounting. The system operates within the corps and COMMZ. Individual patient data and medical information are accumulated to determine the availability of medical resources and to support the personnel and casualty reporting systems.

b. The TAMMIS-MEDPAR provides the user with automated capabilities in the following areas:

(1) *Patient admission and disposition*. Medical patient accounting and reporting enables personnel to quickly collect and maintain patient demographics for all patients admitted to a facility. This information may be collected through a data entry screen, or the individually carried record (ICR), and is used for tracking patients and managing facility resources. The system prompts users for information specific to the type of admission being performed. The system will accept information for patients being transferred from another MTF. Medical patient accounting and reporting also enables personnel to quickly collect and maintain discharge data and prompts the user for the information specific to the type of discharge (RTD, transfer, absent without leave, death, discharge from hospital, or retired/separated from service). Upon discharge, MEDPAR releases resources to send transfer data for patients transferred to another MTF. Medical patient accounting and reporting also interfaces with the Standard Installation/ Division Personnel System-3 in order to transmit data concerning hospitalized soldiers.

(2) *Patient record management*. Medical patient accounting and reporting enables users to produce a hard copy of the Inpatient Treatment Record Cover Sheet, sets of patient labels, and a hard copy of the patient record including any transactions that occurred during the patient's stay in the MTF. Using MEDPAR, personnel have the ability to archive and maintain the patient's record after the patient has been discharged from the facility.

(3) *Patient status management*. Medical patient accounting and reporting allows users to update information concerning the patient's condition, acuity level, stability, location within the facility, casualty status, and evacuation status, as well as the patient's activity in and out of the facility. The system uses this information to generate patient evacuation requests and patient manifests.

(4) *Patient accounting reports*. Medical patient accounting and reporting enables users to produce a ward report, admissions and dispositions (AAD) report, allied AAD report, very seriously ill/

seriously ill/special category roster, patient alpha roster, patient roster by unit, and a reportable conditions (MED-16) roster. The system also allows users to make AAD corrections to previous AAD reports, reflecting the changes on the next AAD report produced.

(5) *Facility management reports*. Medical patient accounting and reporting enables users to produce a command interest roster, patient evacuation roster, expected dispositions report, bed status report, register number listing, pre-admission report, medical summary report worksheet, and medical summary report. The system also allows users to print reports received from the MEDREG system and send the bed status report to the MEDREG system via floppy diskette, tape, or modem.

(6) *Individually carried record*. Medical patient accounting and reporting enables users to read and update the ICR. The ICR was designed to store data pertaining to the individual soldier on a tag or other similar device. Data can be read or downloaded from the tag into the MEDPAR system through the use of an interface device. The system allows users to enter and update the administrative data file, medically significant data file, medical readiness data file, and the combat treatment file after reading the ICR.

(7) *Command interest roll-up reports*. Medical patient accounting and reporting allows users to send recapitulation reports, bed status reports, reportable condition reports, and comment reports to the next higher headquarters by floppy diskette, tape, or modem.

(8) *Medical patient accounting and reporting system maintenance*. The system enables the MEDPAR system administrator to maintain the MEDPAR system files, the archive log, and the select tables. The MEDPAR system administrator can modify specific report parameters for the command interest report and the environmental information that describes the facility, location of the facility, and the number of OR suites in the facility. This gives the system administrator flexibility in meeting changing battlefield requirements. The system administrator can also modify a patient register number, ensuring the integrity of the MEDPAR database. In addition, the system administrator can reconcile the facility bed status. This useful function should be run when the system fails while a patient activity is being recorded. The system allows users to correct previous medical summary report worksheets. These changes are reflected in the monthly medical summary report.

(9) *User designed reports*. Medical patient accounting and reporting allows users to browse through the *ad hoc* report file and create, modify, delete, and print reports.

5-5. The Medical Supply System

a. The TAMMIS-MEDSUP automates the comprehensive management and requisitioning of medical materiel required to support medical units. It is designed to operate at the DMSO within US Army divisions; at MEDLOG battalions; and at TOE hospitals within the corps and COMMZ. The TAMMIS will operate on COTS boxes. The TAMMIS-MEDSUP interfaces with the Standard Army Management Information System (STAMIS), specifically the Department of Army Movement Management System-Redesigned, Combat Service Support Control System (CSSCS), Standard Army Retail Supply System, and Standard Property Book System—Redesign.

b. The TAMMIS-MEDSUP provides the user with automated capabilities in the following areas:

(1) *Customer processing*. Enables the user to—

- Enter routine and emergency customer requests for medical materiel.
- Enter, approve, reject, or receive customer turn-ins.
- Maintain a customer request file where requests can be reviewed, modified, or canceled, and supply status can be provided to the customer.
- Build and maintain an automated customer reorder list.
- Produce various customer supply and financial reports.
- Prepare files for customers.
- Load and process files from customers.

(2) *Supply requisitioning and receiving and due ins*. Allows the user to—

- Generate, review, and enter replenishment requisitions.
- Review, modify, or cancel due-in records.
- Generate follow-up requests and print the due-in items report.
- Enter, process, review, and reverse receipts.
- Prepare files for the supplier.
- Load and process files from the supplier.

(3) *Local stock maintenance, quality control, and reporting*.

(*a*) Enables the user to—

- Maintain local stock records and levels by adding or changing stock record files and processing stock number changes.
- Review the item request history for stockage of an item.
- Recompute the requisitioning objective or reorder point (ROP) for stocked items.
- Review contingency versus active stocks.

(*b*) Allows the user to—

- Maintain a stock location file.
- Produce location reports.
- Conduct more efficient physical inventories.
- Perform inventory adjustments.
- Produce inventory reports.

(*c*) Allows the user to perform quality controls and destruction actions by—

- Processing quality control alert messages.
- Scheduling quality control surveillance inspections.
- Entering quality control data for materiel received.
- Entering or updating destruction records.
- Adjusting the stock record file for destruction.
- Printing quality control and destruction reports.

(*d*) Enables the user to—

- Obtain information for current stock status and process catalog changes.
- Perform monthly summary purge and create the Standard Financial System file.
- Perform periodic and special purpose reporting, such as C2 and numerous supply management reports.
- Perform excess stock management and reporting.

(4) *Query by the national stock number (NSN), due in or due out, or transaction history*. Allows the user to—

- View current stock status, due in or out transaction history, and demand history on the screen.
- Modify or cancel customer requests.
- Review, modify, or cancel due-in records.

(5) *Setting up and maintaining system procedures*. Enables the user at initial system setup or during normal system operation to—

- Build or update the supported customer file.
- Build or update the supporting activity file.
- Build or update the environmental data file by entering and updating local destruction date, financial description data, requisitioning objective or ROP calculation data, processing default data, and control data.
- Update month and cut-off dates.
- Update reporting, printing, and display options.
- Perform file archiving.
- Build an updated cost file.
- Update the elements of expense file.

(6) *Reviewing exceptions referred to manager*. Allows the user to review and process exception records from the due-in exception file, customer demand exception file, receipt exception file, and replenishment exception file.

(7) *User designed reports*. Allows the user to create, modify, delete, and print user-designed temporary reports.

Section II. FORCE XXI ARMY MEDICAL MANAGEMENT INFORMATION SYSTEM

5-6. Medical Communications for Combat Casualty Care

a. The MC4 system lays the foundation for CHS of Force XXI and the Army, 2010 and beyond. The MRI units were designed to use the enhanced communications and digital enablers that will be available on the Army XXI battlefield. As the Army moves to the future, as long as soldiers are involved, the CHS ten basic functions must still be accomplished. The AMEDD's concept for MC4 is contained in US Army Training and Doctrine Command (TRADOC) Pamphlet 525-50.

b. The MC4 system will be achieved by the integration of emerging information management technologies with existing and emerging digital communications technologies. This new medical information management system will start with the individual soldier and continue throughout the health care continuum. The best way to visualize the MC4 system capability is as a piece of the Army digital computer network where all ten CHS functional areas (or business systems) have been digitized and this CHS information is freely shared with everyone on the Army network with a need to know. In fact, not only will the MC4

system provide Army commanders with CHS information, it will provide commanders with a seamless transition to the joint CHS environment. The TMIP is the software program that will deliver the CHS specific software for the MC4 system along with standardizing software business practices DOD wide.

5-7. System Description

a. The MC4 system will be a worldwide, automated CHS system, which provides commanders, health care providers, and medical support providers, at all echelons, with integrated medical information. The system will provide digital enablers to link, both vertically and horizontally, all ten CHS functional "business systems." The MC4 system will receive, store, process, transmit, and report medical C2, medical surveillance, medical treatment, medical situational awareness, and MEDLOG data across all levels of care. This will be achieved through the integration of a network of medical information systems linked through the Army data communications structure. The MC4 system will be developed incrementally through rapid prototyping and the spiral development process, which will process the system from limited functional capabilities to fully integrated objective capabilities.

b. The MC4 system will consist of three basic components—software, hardware, and telecommunications systems. These three basic components are discussed in paragraphs 5-8 through 5-10.

5-8. Software Capability

a. The Joint TMIP will provide government off-the-shelf (GOTS)/COTS software to support joint theater operations. The software provides an integrated medical information system that will support all levels of care in a theater of operations with links to the sustaining base. Medical capabilities provided to support commanders in the theater will address medical C2 (including medical capability assessment/ sustainability analysis and medical intelligence); MEDLOG (including blood product management and medical maintenance management); casualty evacuation; and health care delivery.

b. The MC4 system will support Army unique requirements and any software needed to interface with the STAMIS such as CSSCS, Global Combat Support System-Army (GCSS-A), Global Command and Control System-Army (GCCS-A), Force XXI Battle Command Brigade & Below (FBCB2), warrior programs, and the Movement Tracking System.

5-9. Hardware Systems

The hardware will consist of automation equipment supporting the above software capabilities. Examples include, but are not limited to, computers, printers, networking devices, and the personal information carrier (PIC).

5-10. Communications Systems

The MC4 system will rely on current and proposed Army solutions for tactical, operational, and strategic communications systems to transmit and receive digitized medical information throughout the theater and

back to the sustaining base. The MC4 system will include hardware or software required to interface with current and emerging technologies supporting manual, wired, and wireless data transmission. At end-state, the MC4 system users will exchange data electronically via the WIN architecture. In the interim, until the WIN architecture is fully fielded and can support the requirement, the MC4 system will provide, to selected medical units (for example, medical detachment, telemedicine or C4I units), a solution (such as commercial satellite and/or high frequency radios) to transmit digital medical data.

5-11. Operational Concept

a. Soldier Level.

(1) Soldiers have long required the ability to carry medical information with them for purposes of individual readiness, continuity of care, medical surveillance, and post deployment health care follow-up. Virtually all this critical medical information is currently documented on paper after the fact. In order to become a part of the soldier's permanent medical record, the pieces of paper must be physically transported back to the soldier's home station and then physically placed in that record. Because of weight, preparation difficulties (rain, cold, darkness), and storage limitations, it is impossible to maintain a high level of paper documentation during an operational deployment.

(2) With the MC4 system, medical information about each soldier will be entered into a local database maintained at the supporting battalion aid station (BAS) or troop medical clinic (TMC). This information will include the soldier's immunization status, medical deployability status, and dental deployability status. A commander, faced with a deployment, will be able to simply query the database to gain the deployability status of the entire command. Time previously spent on physically searching paper records will be available for other tasks.

(3) With the MC4 system, each soldier will be issued a PIC. The PIC is an electronic device that will store personal information about the individual soldier. The PIC specifications are addressed in a separate DOD requirements document, which incorporates Army operational requirements into this standard joint device. The PIC will be used to record all of the soldier's health care events and the soldier's readiness status. Each time a soldier receives medical care or immunizations, the medical history on the PIC will be updated. When a soldier is deployed, his PIC will contain baseline clinical data. During processing for deployment the medical staff will be able to read all of this immunization, medical, dental, and medical history data directly from the PIC, greatly speeding up the process. Once in an operational theater, the soldier's PIC will continue to provide a backup record of all medical events that occur during the deployment. Any medical data generated by a medical event will be entered onto the PIC as well as being entered into the MC4 information system. The preservation of medical data will no longer rely on the safeguarding and transporting of stacks of paper records.

(4) As part of the warrior program under the program manager soldier, a Warfighter Physiological Status Monitor (WPSM) is under development. The WPSM will be a suite of external sensors that will monitor numerous elements of a soldier's body functions, obtaining data on vital signs, thermal strain, hydration state, and sleep/alert status. These sensors will feed the physiologic data to a body-worn computer (also part of the warrior system). An artificial intelligence program on the computer will process

the data obtained and will provide a red-amber-green soldier status to the supervisor. The system will also allow the trauma specialist to monitor soldier vital signs and ultimately provide a remote triage capability, generating an alert if physiologic parameters fall outside of preset ranges. This alert will be transmitted by the soldier's warrior radio to the platoon leader/platoon sergeant and trauma specialist, warning that the soldier may have become a casualty. In addition, the warrior system will also provide a call-for-help button that the soldier can press if he requires medical assistance. The alert button will transmit a distress call to the platoon leader/platoon sergeant and trauma specialist. When either alarm is activated, the vital sign information coming from the WPSM will automatically be broadcast to the trauma specialist as well as recorded onto the PIC. Additional capabilities such as psychological stress, work load capacity, and energy balance monitoring are anticipated.

b. Databases. With the MC4 system, medical information on soldiers will be stored at different levels. This will allow commanders and command surgeons at the various levels to access medical information on their soldiers to find out specific information and to conduct analysis of disease/injury trends. These lower echelon databases also provide a means for information redundancy should an information node destruct or a communications outage occur. Personnel (medical commanders, staff surgeons) at each echelon with the MC4 system management functionality will be able to query the database. The CHS information required by CSSCS will pass from the MC4 system through GCSS-A or directly to CSSCS.

(1) *Personal information carrier.* The PIC will contain the medical information relevant to one soldier.

(2) *Battalion aid station/forward support medical company (FSMC)/division support medical company (DSMC)/TMC/ASMB/CSH.* Units responsible for the treatment of soldiers will maintain a database containing medical information relevant to the soldiers that it supports.

(3) *Division surgeon/corps surgeon.* The surgeons will maintain a database containing medical information relevant to the soldiers in that division or corps respectively.

(4) *Commander in Chief surgeon.* The CINC surgeon will maintain a database containing all medical information relevant to the entire theater. This will be the interim theater database (ITDB) which provides information to update sustaining base medical information systems such as the computer-based patient record and health surveillance system and is used for medical threat and trend analysis.

c. Echelon I.

(1) *Trauma specialist.* The trauma specialist (formerly referred to as the combat medic) will be the first point where a casualty interfaces with the MC4 system. Each trauma specialist will be equipped with a device capable of reading and writing to the casualty's PIC. Any medical care provided to the casualty by the trauma specialist will be recorded on the PIC. Where communication assets allow, this information will also be transmitted to the supporting BAS. Under the warrior program, trauma specialists assigned to maneuver battalions will have some additional capabilities. A warrior medic version of the warrior ensemble is being developed with specific medical requirements. The medic warrior ensemble will

include a body-worn computer, a Global Positioning System (GPS) locator system, and a warrior radio. If a soldier's WPSM/computer system broadcasts an alert or a soldier activates his trauma specialist call button, the trauma specialist will receive these alerts and the flow of vital sign information over his warrior radio. The trauma specialist's GPS locator will allow the trauma specialist to quickly locate and reach the casualty. The trauma specialist's computer will be able to read vital signs directly from the casualty's WPSM. All of these capabilities will enhance the trauma specialist's ability to quickly detect, reach, and treat a casualty. In the event of multiple casualties, the flow of WPSM data to the trauma specialist will allow him to prioritize the casualties using remote triage in order to reach the worst injured first.

(2) *Evacuation*. If a casualty's injuries or illness require treatment beyond the trauma specialist's abilities, the casualty is evacuated to a higher level of medical care, most often the BAS. Evacuation is accomplished via dedicated medical evacuation vehicles, wheeled or tracked ambulances, and helicopters. During this evacuation, onboard medical attendants apply en route treatment and monitor the casualty. Digital onboard medical equipment eliminates the difficulties with manual vital signs monitoring which are oftentimes impossible. With the MC4 system, each evacuation vehicle will be equipped with an onboard computer that will interface with the casualty's PIC. En route care received will be recorded on the PIC and will also be transmitted to the destination MTF. Digital linkages to medical C2 units/medical regulators allow for redirecting the casualty en route should the need arise. The request for evacuation from the trauma specialist's site will be made over FBCB2 utilizing a built-in medical evacuation request.

(3) *Battalion aid station*. At the BAS, the casualty will receive routine or emergency resuscitative care. The medical staff will use MC4 computers to read the casualty's PIC, learning what medical care the casualty has already received and any relevant medical history. This information, along with any information generated by the treatment that the casualty receives at the BAS, will be recorded onto the local database. The information will also be transmitted to the next higher level of medical care (the FSMC) and ultimately to the ITDB.

(4) *Medical logistics*. The present MEDLOG system at Echelon I is a totally manual system. Under MC4, the trauma specialist will utilize FBCB2 to request medical supplies from the BAS. This request will be a built-in report on the FBCB2 system. At the BAS, requests for medical resupply will be made utilizing the MC4 system. This automation will not only speed the resupply process, but will also allow the combat commander to maintain visibility of his unit's MEDLOG status, either through FBCB2 or through MC4's link to CSSCS through GCSS-A.

d. Echelon II.

(1) At the Echelon II medical units (FSMCs and DSMCs), the MC4 system will provide the same augmentations to treatment documentation, evacuation, and MEDLOG seen at Echelon I. Through the use of the medical detachment, telemedicine, Echelon II medical companies will have the ability to digitize medical data (x-rays, pictures, and so forth) and transmit it to medical experts at echelons above division. This teleconsultation ability will result in some casualties being treated further forward in the theater, will increase the RTD rate and will reduce over-evacuation.

(2) The Medical Materiel Management Branch at the Division Materiel Management Center is the Class VIII commodity manager and, using the same automated tools as the other commodity managers,

makes arrangements to fill the request through the battlefield distribution system. The MC4 system will automate linkage of Class VIII to the transportation system. The management of the complex medical sets along with the quality control of Class VIII material is also automated, improving efficiency over the current manual system. The joint software design supports the Army support to other Services mission of Army MEDLOG units.

e. Echelons III and IV. These echelons contain hospitals and all of the specialized medical units required to support the theater. The MC4 system will link all of these medical functions. The MC4 system will equip corps treatment and evacuation teams with personally carried and mobile computers for the collection and forwarding of medical information to the forward, division, or area support medical company. Likewise, CSC, veterinary, dental, and PVNTMED teams operating in the brigade rear area will be equipped with personally carried or mobile computers. These MC4 provided devices will be loaded with the appropriate software functionality. Corps/theater medical regulators/medical C2 will be able to rapidly and accurately match treatment capability with the soldier's need for care. The MC4 corps medical regulating system (TRANSCOM Regulating and Command and Control Evacuation System [TRAC2ES]) provides this functionality via WIN. A seamless Class VIII (including blood) automated system links the theater to prime vendor systems in CONUS.

f. Command and Control. At all echelons, the MC4 system will automatically provide information such as evacuation status, current fitness for combat, and hazard exposure information to the commander's situational awareness system. The MC4 system will provide the commander with the ability to track and record the date and location of exposure to health hazards, which include environmental, occupational, industrial, and NBC hazards. This information is critical to the force protection health hazard analysis necessary to identify emerging DNBI problems and trends. Commanders will have real-time information on food source safety/quality, operationally significant zoonotic diseases, health surveillance/ trends, and near real-time health hazard assessment data for NBC/endemic disease threats and occupational or environmental health threats. This information will be provided to the commander from the MC4 system functional digital systems through GCSS-A to CSSCS. Commanders, for the first time, will have a complete picture of the battlefield, which will allow them to accurately influence current operations while synchronizing CHS with other activities.

g. Echelon V. All care/exposure information will be digitally stored. The documentation of immunizations, for example, will eliminate challenges that have surfaced post deployment for vaccines such as anthrax and botulism. This information is stored not only in the Echelon I database supporting the soldier, but is transmitted to the ITDB and the soldier's permanent computerized record. The digital documentation of medical treatment/exposure information will make addressing health exposure issues, as seen in the Gulf War and more recent deployments, much easier.

5-12. Medical Communications for Combat Casualty Care in Combat Support Hospitals

The TMIP software applications will be utilized on computer hardware to provide the capability to process medical information for the medical functional areas accommodated by the CSH. Medical information collected and processed will be stored or forwarded to appropriate agencies as required. Software functional applications found in the CSH are shown in Table 5-1.

Table 5-1. Medical Communications for Combat Casualty Care Functionality

TOE	DESCRIPTION	COMPUTER	SOFTWARE APPLICATION
08855A000	ECHELON ABOVE CORPS		
08856A000	HHD, CBT SPT HOSP, NSB COMMAND SEC	3	CHCSII, OS
	S-1 SEC		
	S2/S3 SEC		
	S4 SEC	1	DMLSS, OS
	S6 SEC		
	AUTOMATION SPT SEC DETACHMENT HQ		
	SRC TOTAL	4	
08857A000	HOSP CO, 164 BED, NSB	1	CHCSII, OS
	DENTAL SEC	1	CHCSII, OS
	ANESTHESIA SEC	3	CHCSII, OS
	OPERATING ROOM/CMS	2	CHCSII, OS
	NURSING SVC SEC	1	CHCSII, OS
	2 INTENSIVE CARE	2	CHCSII, OS
	7 INTERMEDIATE CARE	7	CHCSII, OS
	SRC TOTAL	17	
08858A000	HOSP CO, 84 BED, NSB	1	CHCSII, OS
	PATIENT ADMIN SEC	3	TRAC2ES, CHCSII, OS
	NUTRITION CARE SEC	2	CHCSII, OS
	SUPPLY & SERVICE DIV	2	DMLSS, OS
	TRIAGE/PRE-OP/EMT	5	CHCS, OS
	OR/CMS	2	CHCSII, OS
	ANESTHESIA SEC	3	CHCSII, OS
	SPECIALTY CLINIC	5	CHCSII, OS
	NURSING SVC CNTL	1	CHCSII, OS
	2 INTENSIVE CARE	2	CHCSII, OS
	3 INTERMEDIATE CARE	3	CHCSII, OS
	PHARMACY SVC	2	CHCSII, DMLSS, OS
	LABORATORY SVC	2	CHCSII, OS
	BLOOD BANK	2	DBSS, CHCSII, OS
	RADIOLOGY SVC	2	CHCSII, OS
	SRC TOTAL	37	
08956A000	HHD, CBT SPT HOSP (CORPS) COMMAND SEC	2	CHCSII, OS
	S2/S3 SEC		
	AUTOMATION SPT SEC		
	S4 SEC	1	DMLSS, OS
	DETACHMENT HQ		
	SRC TOTAL	3	

Table 5-1. Medical Communications for Combat Casualty Care Functionality (Continued)

TOE	DESCRIPTION	COMPUTER	SOFTWARE APPLICATION
08955A000	CORPS		
08957A000	HOSPITAL CO, 164 BED	1	CHCSII, OS
	PATIENT ADMIN DIV	2	CHCSII, TRAC2ES, OS
	NUTRITION CARE DIV	2	CHCSII, OS
	SUPPLY & SERVICE DIV	2	DMLSS, OS
	TRIAGE/PRE-OP/EMT	3	CHCSII, OS
	OR/CMS	3	CHCSII, OS
	ANESTHESIA SEC	2	CHCSII, OS
	SPECIALTY CLINICS	5	CHCSII, OS
	DENTAL SVC	1	CHCSII, OS
	NURSING SVC CNTL	1	CHCSII, OS
	2 INTENSIVE CARE	2	CHCSII, OS
	7 INTERMEDIATE CARE	7	CHCSII, OS
	PHARMACY SVC	2	CHCSII, DMLSS, OS
	LAB/BLOOD BANK SEC	2	CHCSII, DBSS, OS
	RADIOLOGY SVC	2	CHCSII, DBSS, OS
	SRC TOTAL	37	
08958A000	HOSP CO, 84 BED, CORPS	1	CHCSII, OS
	S6		
	PATIENT ADMIN DIV	2	CHCSII, TRAC2ES, OS
	NUTRITION CARE DIV	1	CHCSII, OS
	SUPPLY & SERVICE DIV	2	DMLSS, OS
	TRIAGE/PRE-OP/EMT	3	CHCSII, OS
	SPECIALTY CLINICS	3	CHCSII, OS
	OR/CMS	2	CHCSII, OS
	ANESTHESIA SEC	2	CHCSII, OS
	NURSING SVC CNTL	1	CHCSII, OS
	2 INTENSIVE CARE	2	CHCSII, OS
	3 INTERMEDIATE CARE	3	CHCSII, OS
	PHARMACY SVC	2	CHCSII, DMLSS, OS
	LAB/BLOOD BANK SEC	2	CHCSII, DBSS, OS
	RADIOLOGY SVC	2	CHCSII, OS
	SRC TOTAL	28	

SOFTWARE APPLICATION KEY:

CHCSII—COMPOSITE HEALTH CARE SYSTEM
DBSS—DEFENSE BLOOD STANDARD SYSTEM
DMLLS—DEFENSE MEDICAL LOGISTICS STANDARD SUPPORT
OS—MICROSOFT OFFICE SUITE
TRAC2ES—TRANSCOM REGULATING AND COMMAND AND CONTROL EVACUATION SYSTEM

5-13. Software Applications

Table 5-2 depicts a comparison of the current TAMMIS software applications and the subsequent TMIP software.

Table 5-2. Software Applications

TAMMIS	TMIP
MEDPAR	CHCSII
MEDPAR-D	CHCSII
MEDSUP	DMLSS/MEDLOG-D
MEDASM	DMLSS/MEDLOG-D
MEDMNT	GCSS-A
MEDBLD	DBSS/MEDLOG-D
MEDREG	TRAC2ES
NO APPLICATION	MSS
NO APPLICATION	DDSS

LEGEND:
MSS—MEDICAL SURVEILLANCE SYSTEM
DDSS—DEFENSE DENTAL STANDARD SYSTEM

APPENDIX A

MEDICAL DETACHMENT, MINIMAL CARE TOE 08949A000

A-1. Introduction

The medical detachment, minimal care is a new organization as a result of the MRI. This unit replaces Medical Company, Holding (TOE 08458L000) and Hospital Unit, Holding (TOE 08739L000).

A-2. Mission

This detachment provides minimal care/convalescent care hospitalization, nursing, and rehabilitative services in support of Echelon III and Echelon IV hospitalization.

A-3. Assignment

This detachment will be assigned to a medical brigade and normally attached to a hospital.

A-4. Capabilities

This detachment provides—

a. Command and control of organic elements to include health support planning, policies, and support operations within the detachment's area of responsibility.

b. Information to commanders and their staffs on the health and status of soldiers in their command.

c. Augmentation of the hospital to which attached to provide hospitalization, minimal nursing care, for up to 120 patients and for reconditioning and rehabilitation for those patients who can RTD within the theater evacuation policy or who are awaiting further medical evacuation.

d. Physical therapy and occupational therapy services for patients.

e. Augmentation of the emergency nursing capabilities of the hospital to which attached during mass casualty situations.

f. Augmentation to the nutrition care capabilities of the hospital to which attached to support patient feeding of this detachment.

g. Three days of supply level for all organic elements upon deployment and during routine operations.

A-5. Limitations

This unit is dependent upon—

a. Appropriate elements of the corps or theater for religious, legal, finance, personnel and administrative services, laundry and bath, graves registration, supplemental transportation, maintenance, and communication/information management support.

b. The hospital to which attached for food service, water distribution, personnel and administrative services, unit health services, medical treatment, patient administration, medical maintenance, supply (all classes), and unit maintenance for the detachment's communications equipment and power generator.

c. The hospital to which attached for additional power requirements.

d. The medical company, dental services and the medical company, CSC for augmentation of treatment capabilities.

A-6. Basis of Allocation

This detachment supports the requirement for all theater minimal care bed requirements. To get the total bed requirements, minimal care detachment bed requirements must be added to the ICU/ICW bed requirements generated by corps and EAC hospitals. For programming purposes, 2.604 minimal care detachments per 1,000 hospital patients in the corps and 4.792 minimal care detachments per 1,000 hospital patients in EAC.

A-7. Mobility

a. This unit has no mobility.

b. This unit has 181,305 pounds (16,600 cubic feet) of TOE assets requiring transportation.

c. When providing support to hospitals, elements of this unit will not move on a regular basis.

A-8. Employment

The medical brigade will provide C2 to assigned medical detachment, minimal care and will ensure continuous provisions of minimal care beds as required to the corps and EAC hospitals. The medical detachment, minimal care will be further attached to the hospital for support and is designed to provide 120 beds of minimal and convalescent care. Each squad of the detachment may be employed separately providing 40 minimal care beds per squad. The medical detachment, minimal care provides nursing, physical therapy, and occupational therapy services for those patients expected to RTD within the theater

evacuation policy or who are awaiting further medical evacuation. The medical company, dental services and the medical company or detachment, CSC can provide appropriate support to augment the medical detachment, minimal care treatment capabilities, if required.

A-9. Concept of Operations and Functions

The function of this detachment is to perform minimal care nursing, occupational therapy, and physical therapy for the patients admitted to the hospital to which attached and to other eligible personnel as determined by the MEDCOM/medical brigade. Organic personnel of the detachment set up and break down unit shelters and power-generating equipment in preparation for detachment operations or detachment movement, set up the nursing care and occupational therapy/physical therapy areas, and perform routine minimal care nursing and rehabilitation/reconditioning for patients expected to RTD within the theater evacuation policy or who are awaiting medical evacuation and require continued nursing supervision. The detachment is normally attached to the hospital and provides a detachment headquarters, an occupational/ physical therapy section, and three minimal care wards. See Figures A-1 and A-2 for organization and operational and command relationship.

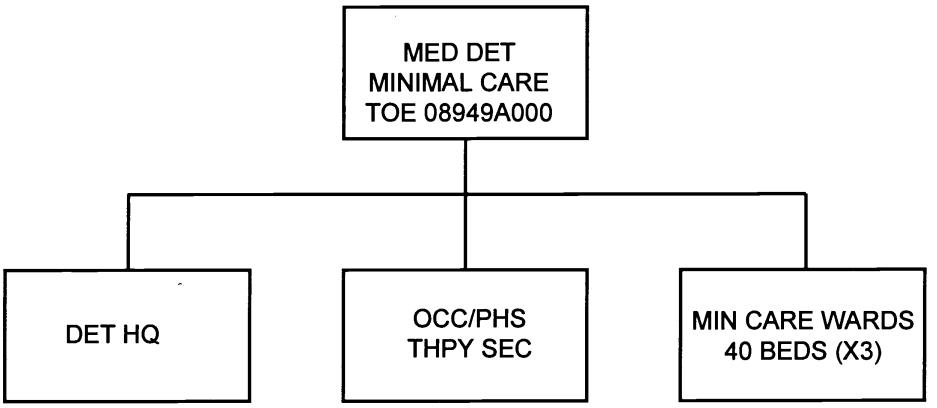


Figure A-1. Medical detachment, minimal care.

a. Detachment Headquarters. The detachment headquarters provides C2 and administrative support. It performs unit plans and movement, routine and specialized operations, mission-related task organization, and coordinates directly with the hospital to which attached. Personnel of the headquarters and support section provide maintenance and supply and services to augment the respective sections of the hospital to which attached.

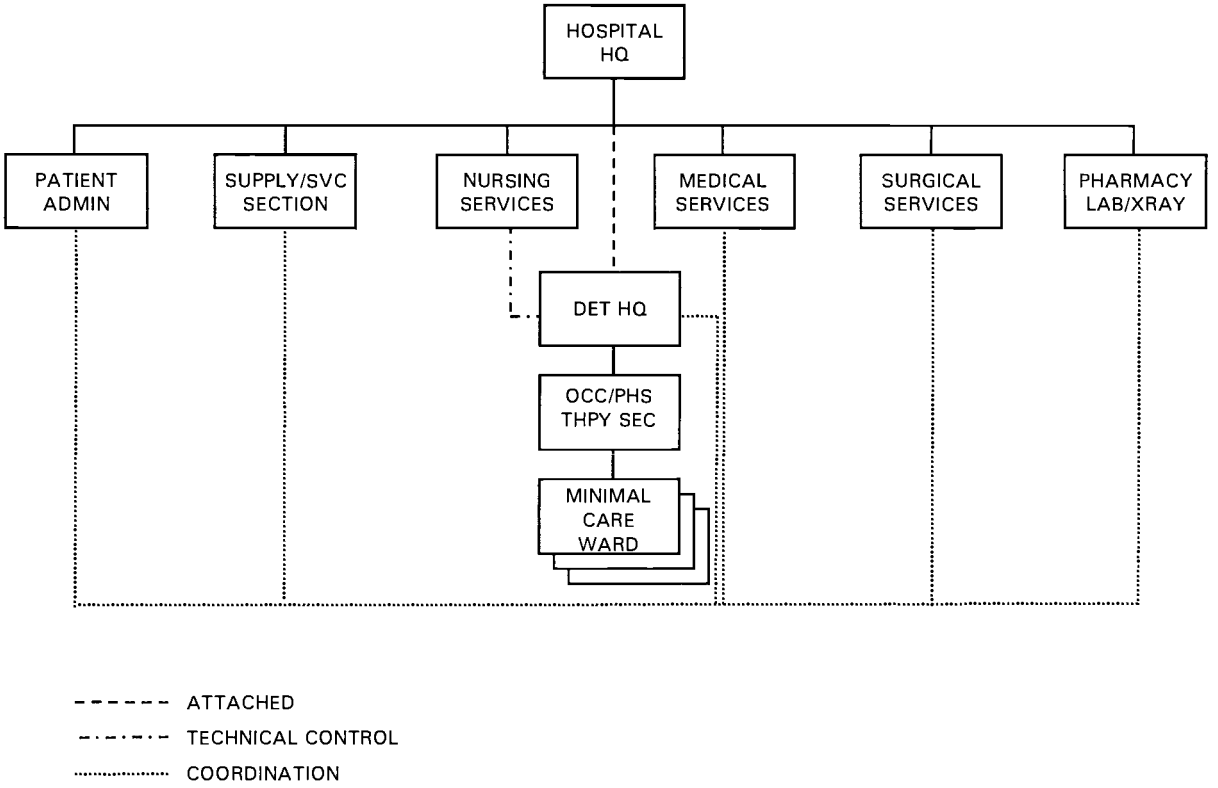


Figure A-2. Medical detachment, minimal care operational and command relationship.

b. Occupational/Physical Therapy Section. This section provides occupational therapy and physical therapy services to the detachment's inpatients. Personnel in this section augment the respective sections of the hospital to which attached.

c. Minimal Care Wards. Three minimal care wards provide nursing supervision and management of medical or surgical patients who are ambulatory and partially self-sufficient and are in the final stages of recovery awaiting RTD or who are awaiting further medical evacuation. The focus of nursing management is on an aggressive therapeutic environment which speeds recovery for RTD or which ensures stabilization and preparation for medical evacuation. Nursing personnel administer medications and treatments which cannot be done by the patient and provide instruction in self-care and post-hospitalization health maintenance. Nursing personnel coordinate with occupational/physical therapy personnel for rehabilitation and reconditioning of patients. Nursing personnel also coordinate with the hospital to which attached for routine and emergency medical treatment needs of patients.

APPENDIX B

MEDICAL DETACHMENT, TELEMEDICINE TOE 08539AA00

B-1. Introduction

The medical detachment, telemedicine is a new organization as a result of the MRI. It is not a replacement for any unit.

B-2. Mission

The mission is to provide telemedicine services in support of MTFs within the division, corps, and theater AO.

B-3. Assignment

This detachment will normally be assigned to a CSH and further attached to the medical company of the forward support battalion, main support battalion, or ASMB.

B-4. Capabilities

This detachment provides—

a. Command and control of organic telemedicine teams, to include planning and coordination of telemedicine support across all supported MTFs within the division, corps, or theater AO.

b. Augmentation teams for up to seven MTFs, providing integrated telemedicine service to the host MTF, teleconsultation, telementoring, teleradiology, telepathology, and other forms of telemedicine support.

c. An interface for MTF clinicians through interactive or store and forward telemedicine support, to include the multimedia transmission of clinical information in the form of video, voice, high-resolution still images, and/or text data.

d. Telemedicine links for on-site capability for video access to remote medical and allied health specialists for real-time mentoring of complex treatment and surgical procedures.

e. Three days of supply for all organic elements upon deployment and during routine operations.

B-5. Limitations

This detachment is dependent upon—

a. Appropriate elements of the theater Army, corps, or division for religious, legal, finance, personnel, and administrative services, laundry and bath, and supplemental transportation of equipment.

b. The hospital or medical company to which assigned or attached for food service, water distribution, personnel and administrative services, unit health services, medical maintenance, supply (all classes), power generation, and unit maintenance for the detachment's wheeled vehicles and communications equipment.

c. The hospital or medical company for LAN and WAN connectivity.

d. The corps and theater signal brigade for small extension node support, area support of communications, general support of communications maintenance, and coordination for long-range communications.

B-6. Basis of Allocation

The basis of allocation is one medical detachment, telemedicine per division in the CZ and one per theater.

B-7. Mobility

a. This unit is capable of transporting 30,500 pounds (832 cubic feet) of TOE assets with organic vehicles.

b. This unit has 3,526 pounds (242 cubic feet) of TOE assets requiring transportation.

c. The headquarters section of this unit requires organic transportation for the commander.

d. When providing support to MTFs, the commander and each forward telemedicine team may be required to move on an average of 25 to 50 kilometers every two days.

B-8. Employment

The MEDCOM/medical brigade directs the employment of the detachment. The detachment will provide telemedicine teams for up to seven MTFs. The headquarters element of the detachment will locate with one of the telemedicine teams, preferably with one attached to a hospital. Each team will be equipped for attachment to either a hospital or a medical company in order to provide organizational flexibility. The teams will be dependent upon the MTF to which attached for other forms of support. The telemedicine teams of the detachment provide initial set up of telemedicine services and shelter systems, on-site and remote operational assistance, and periodic operator maintenance of telemedicine equipment and associated information systems for up to seven MTFs.

B-9. Concept of Operations and Functions

The function of the detachment is to provide expert capability to plan and execute telemedicine services in support of MTFs. Operational planning for support of a major theater of war (MTW) requires the

detachment to plan support for up to two hospitals, one area support medical company, one main support medical company, and three FSMCs for each division force equivalent in the corps. The detachment will also plan for telemedicine support of peace operations, humanitarian assistance, and operations in aid of civil authorities as determined by higher headquarters. Organic personnel of the detachment set up and break down unit shelters, communication and information management hardware/software, and patient examination equipment in preparation for unit operations or unit movement. Telemedicine personnel assist in initiating remote medical consultations and provide on-site maintenance and repair/replacement of communication and information management hardware/software. They also assist hospital/medical company health care providers in completing patient examinations for the purpose of remote consultations and to provide on-site training to hospital/medical company personnel in the use of telemedicine equipment for consultations and for other uses, such as medical maintenance, administration, and communication of policies and procedures. The detachment is normally attached to a hospital and provides teams to support an additional six MTFs. The following paragraphs outline the functions of the headquarters section and telemedicine teams. The organization is shown in Figure B-1. The operational and command relationship is shown in Figure B-2.

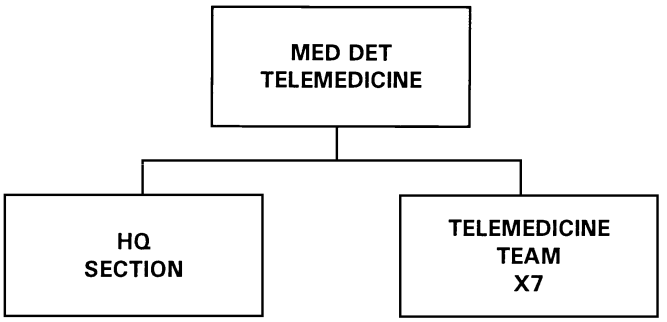


Figure B-1. Medical detachment, telemedicine organization.

a. Headquarters Section. The headquarters of the medical detachment, telemedicine provides telemedicine advice to the MEDCOM/medical brigade and provides C2 of subordinate telemedicine teams. This includes telemedicine support across all supported MTFs and supervision of the telemedicine teams. The headquarters section will coordinate with the supporting signal units to ensure adequate communications support. The headquarters section will also coordinate with the supported MTFs to ensure the integration of clinical services, medical imaging, information systems, and communications for the conduct of telemedicine.

b. Telemedicine Teams. The telemedicine teams provide an integrated telemedicine service to a MTF. Each team can be attached to either a hospital or medical company. The team provides referring telemedicine services to multiple clinical areas within the MTF and provides the ability to perform consulting

telemedicine services for more forward health care providers on the battlefield. The team coordinates with the MTF clinicians, establishes links to the health information system in order to utilize electronic patient records, collects multimedia patient data, and establishes links to the information-communications system in order to establish external communications connectivity. These teams are required to provide this service 24 hours per day.

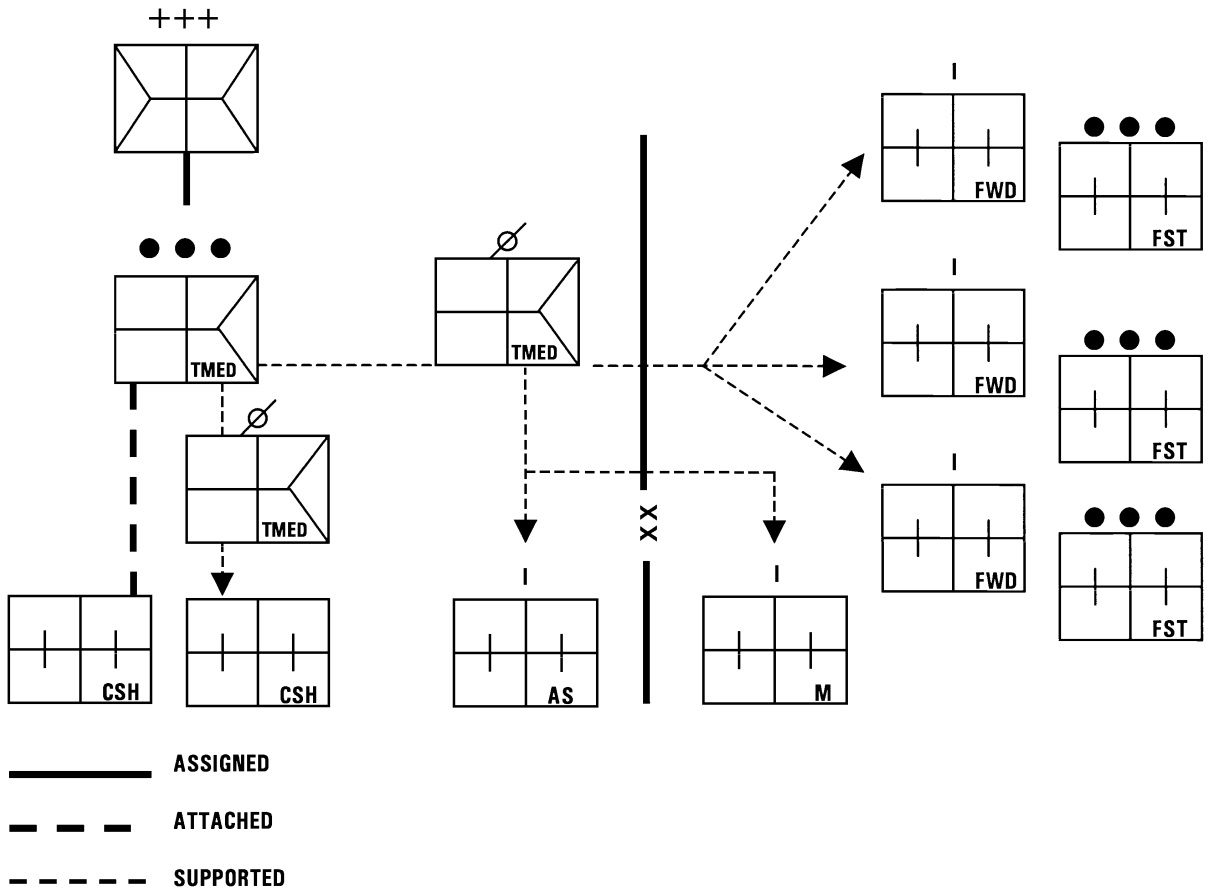


Figure B-2. Medical detachment, telemedicine operational and command relationship.

APPENDIX C

HOSPITAL AUGMENTATION TEAM, HEAD AND NECK TOE 08527AA00

C-1. Introduction

The hospital augmentation team, head and neck is a new organization as a result of the MRI. The hospital augmentation team, head and neck replaces and consolidates the functions of the MF2K Medical Team, Head and Neck Surgery (TOE 08527LA00), the Medical Team, Neurosurgery (TOE 08527LB00), and the Medical Team, Eye Surgery (TOE 08527LC00).

C-2. Mission

The mission of this team is to provide ear, nose, and throat surgery, neurosurgery, and eye surgery augmentation in support of theater hospitals and consultative services as required.

C-3. Assignment

This team will be assigned to a medical brigade or MEDCOM and normally will be attached to a hospital.

C-4. Capabilities

This unit provides—

a. Initial and secondary ear, nose, and throat surgery and consultation services in support of theater hospitals.

b. Initial and secondary neurosurgery and consultation services in support of theater hospitals.

c. Initial and secondary eye surgery and consultation services in support of theater hospitals.

d. Augmentation of the hospital OR surgical and nursing services.

e. The medical materiel set (MMS) (Radiology, Computerized Tomography), which will give the hospital the capability to perform computerized tomography examinations.

f. Three days of supply for all organic elements upon deployment and during routine operations.

C-5. Limitations

This unit is dependent upon—

a. Appropriate elements of the corps for legal, religious, finance, personnel, and administrative services, laundry, bath, CHS, clothing exchange, patient decontamination, MA, and EPW security during processing and evacuation.

b. The hospital to which it is attached to provide sheltered ORs, commonly used equipment, pre- and postoperative nursing care for all patients, patient food service, water distribution, security, personnel and administrative services, unit maintenance for generators and communications equipment, patient administration, coordination of medical evacuation, and all classes of supply.

c. The United States Army Medical Materiel Agency (USAMMA) for the procurement of the MMS (Radiology, Computerized Tomography).

C-6. Basis of Allocation

The basis of allocation is one per four hospitals in the corps.

C-7. Mobility

a. This unit has no organic mobility.

b. This unit has 35,232 pounds (3,965 cubic feet) of TOE assets requiring transportation.

c. Teams will move one time every two days on average. The average move will be approximately 25 kilometers.

C-8. Employment

The medical brigade will provide C2 and support to the assigned hospital augmentation team, head and neck and will ensure continuous provision of neurosurgery, ear, nose and throat surgery, and ophthalmic surgery services to the corps and EAC. The hospital augmentation team, head and neck will be employed with and further attached for support to hospitals.

C-9. Concept of Operations and Functions

The function of the hospital augmentation team, head and neck is to provide preoperative assessment and perform neurosurgery, ear, nose, and throat surgery, and ophthalmic surgery for patients admitted to the hospital to which the unit is attached. The team will also provide the hospital with neurosurgical, ophthalmic, and otolaryngological consultation services and postoperative follow up. The equipment for the hospital augmentation team, head and neck includes the MMS (Radiology, Computerized Tomography). This will provide the hospital augmentation team, head and neck with the capability to perform computerized tomography scans prior to surgery and will decrease the previous requirement for exploratory surgery. The hospital augmentation team, head and neck will include the power supply, radiology technicians, and medical equipment repair support required for the MMS (Radiology, Computerized Tomography). The hospital augmentation team, head and neck does not include an OR and work areas and will perform

surgery utilizing the OR/CMS complex of the hospital to which it is attached. The operational and command relationship is shown in Figure C-1.

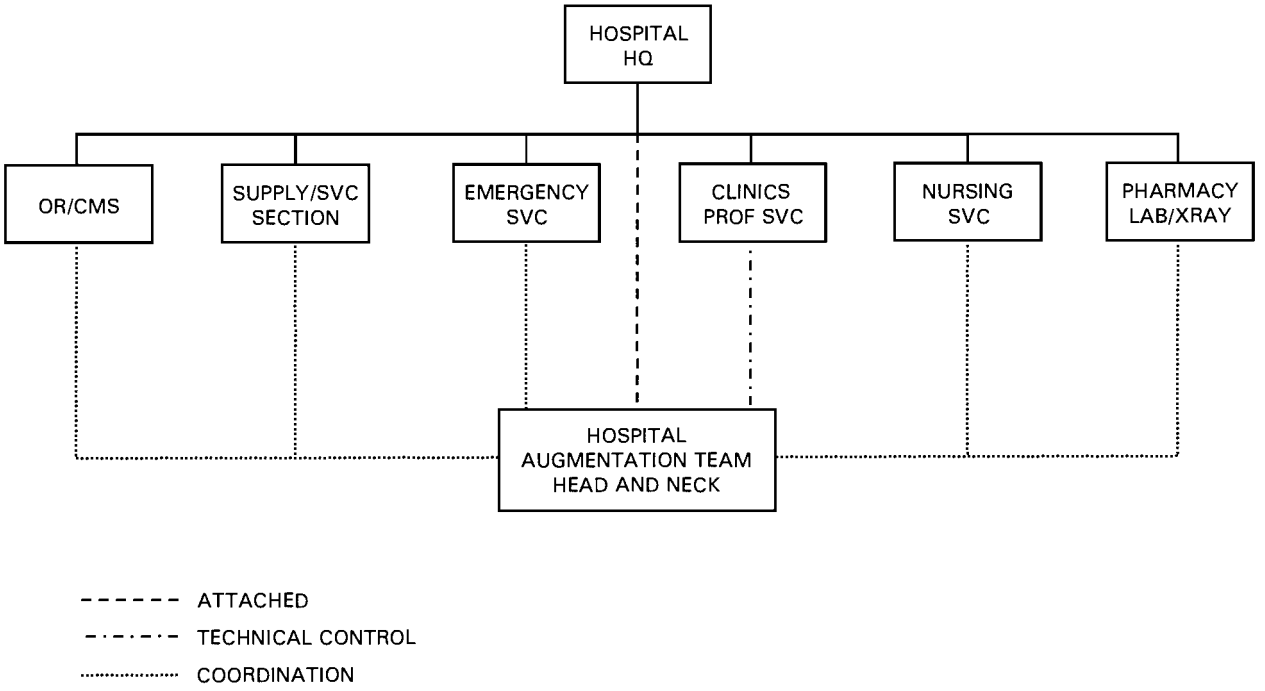


Figure C-1. Hospital augmentation team, head and neck operational and command relationship.

APPENDIX D

HOSPITAL AUGMENTATION TEAM, SPECIAL CARE TOE 08538AA00

D-1. Introduction

The hospital augmentation team, special care is a new organization as a result of the MRI. It is not a replacement for any current unit.

D-2. Mission

The mission of this team is to augment an MTF with the necessary health personnel and equipment to provide CHS to other military operations.

D-3. Assignment

This unit will be assigned to a medical brigade or MEDCOM and normally will be attached to a hospital or other MTF.

D-4. Capabilities

This unit provides—

a. Pediatric inpatient, consultation, and nurse practitioner services.

b. Obstetrics/gynecology (OB/GYN) and specialty nursing services.

c. Preventive medicine services.

d. Community health nursing services.

e. Family physician services.

D-5. Limitations

This unit is dependent upon—

a. Appropriate elements of the theater for legal, religious, finance, personnel and administrative services, laundry, bath, patient decontamination, graves registration, clothing exchange, CHS, and EPW security during processing and evacuation.

b. The hospital to which it is attached to provide sheltered working space, commonly used equipment, inpatient nursing care for all patients, patient and food service, water distribution, security,

personnel and administrative services, maintenance for organic equipment, patient administration, coordination of medical evacuation, and all classes of supply except medical equipment set (MES), Humanitarian Care Augmentation.

c. The Office of The Surgeon General (OTSG) to grant release authority to USAMMA for issue of the MES, Humanitarian Care Augmentation.

D-6. Basis of Allocation

The basis of allocation is one team per theater.

D-7. Mobility

a. This unit has no organic mobility. The PVNTMED physician and family nurse practitioner will require a vehicle from the supported unit to perform their mission.

b. This unit has 118 pounds (16 cubic feet) of TOE assets requiring transportation.

c. Teams will move as directed by higher command.

D-8. Employment

The medical brigade will provide C2 and support to the assigned hospital augmentation team, special care and will ensure continuous provision of health support during operations. The team will be employed and further attached for support to hospitals.

D-9. Concept of Operations and Functions

The function of the hospital augmentation team, special care is to provide additional health personnel to augment an MTF for increased capability to support humanitarian missions. The increased capability will include inpatient/outpatient care for a civilian population. The hospital augmentation team, special care provides pediatric services, OB/GYN services, PVNTMED services, community health nursing services, and family physician services. This team will be dependent upon the hospital to which assigned or attached for sheltered working space and Class VIII supply. It will depend upon OTSG and USAMMA for the MES, Humanitarian Care upon deployment. The MES will provide an MTF with the additional pediatric, OB/GYN, general medical, and nutritional supplies to support a civilian population of 10,000 people for 30 days. This MES will provide basic items and is suitable for use as an initial push package to meet initial requirements. The intent is to deploy the team and a pre-positioned MES separately for issue in theater. The MES is not organic to the MTF modified table of organization and equipment. It augments the MTF to support humanitarian missions. As such, the MES is not included in unit status reporting under the provisions of AR 220-1. The operational and command relationship is shown in Figure D-1.

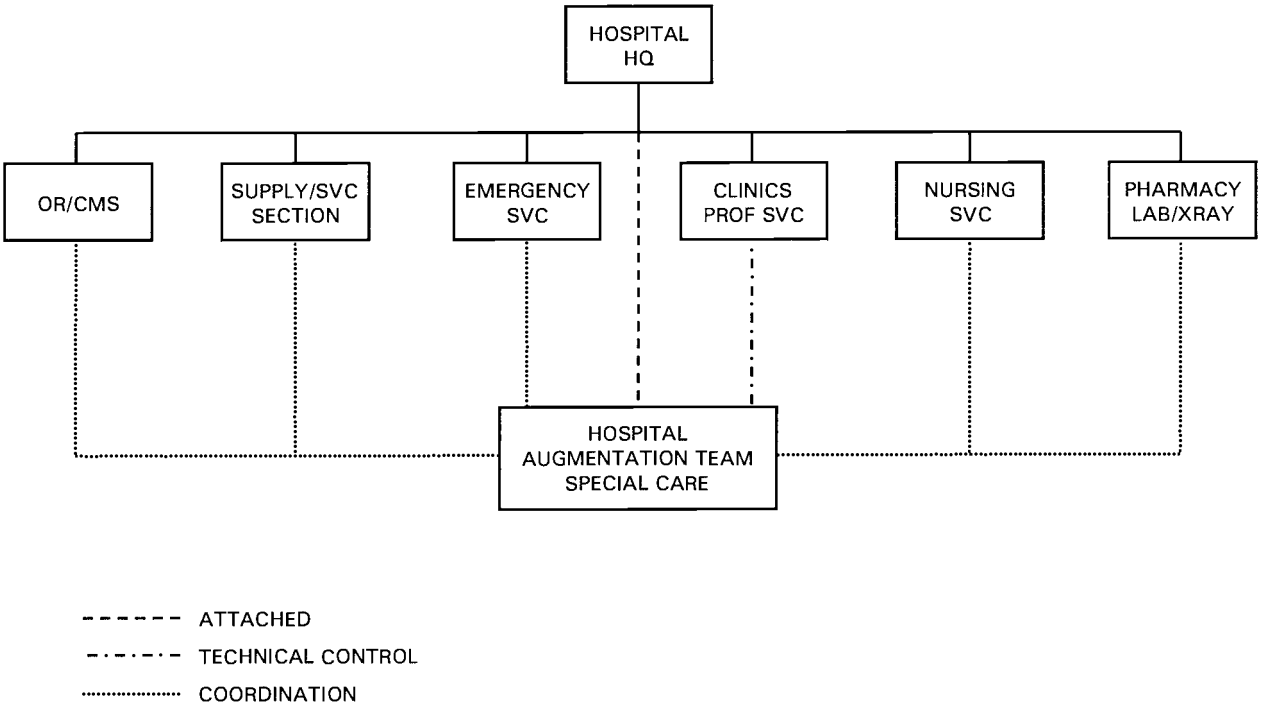


Figure D-1. Hospital augmentation team, special care operational and command relationship.

APPENDIX E

HOSPITAL AUGMENTATION TEAM, PATHOLOGY TOE 08537AA00

E-1. Introduction

The Medical Team, Pathology, TOE 08537LA00, was initially organized based on MF2K requirements. Under MRI, the Medical Team, Pathology was reorganized as the Hospital Augmentation Team, Pathology, TOE 08537AA00, which is the basis for this appendix. The TOE 08537LA00 will be rescinded when units are no longer organized thereunder.

E-2. Mission

The mission is to provide pathology augmentation in support of theater hospitals and consultative services as required.

E-3. Assignment

Assignment will be to a medical brigade or a MEDCOM and will normally be attached to a hospital.

E-4. Capabilities

This team provides—

a. Theater hospitals with an additional and an enhanced pathology capability in the following areas:

- Anatomic pathology (for example, histology, cytology, and postmortem examination).
- Enhanced chemistry (for example, toxicology, immunochemistry, and therapeutic drug monitoring).
- Enhanced microbiology.

b. Three days of supply for all organic elements upon deployment and during routine operations.

E-5. Limitations

This team is dependent upon—

a. Appropriate elements of the theater or corps for legal, religious, finance, personnel and administrative services, bath and laundry support, CHS, clothing exchange, decontamination of remains, and transportation support when the unit is required to relocate.

b. The hospital to which it is attached to provide partial sheltered working space, commonly used equipment, food service, water distribution, security, personnel and administrative services, unit maintenance for generators, transportation, and all classes of supply.

E-6. Basis of Allocation

The basis of allocation is one per theater.

E-7. Mobility

a. This unit has no organic mobility.

b. This unit has 11,351 pounds (1,678 cubic feet) of TOE assets requiring transportation.

E-8. Employment

The medical brigade or MEDCOM will provide C2 and support to the assigned hospital augmentation team, pathology and will ensure continued provision of pathology services to the corps and EAC. The hospital augmentation team, pathology will be employed with and further attached for support to hospitals.

E-9. Concept of Operations and Functions

The function of the hospital augmentation team, pathology is to augment hospital laboratories with a standardized team having capabilities for anatomic pathology, enhanced chemistry, and enhanced microbiology. Medical materiel sets will augment existing clinical laboratory equipment to support anatomic pathology and enhanced chemistry capabilities. The operational and command relationship is shown in Figure E-1.

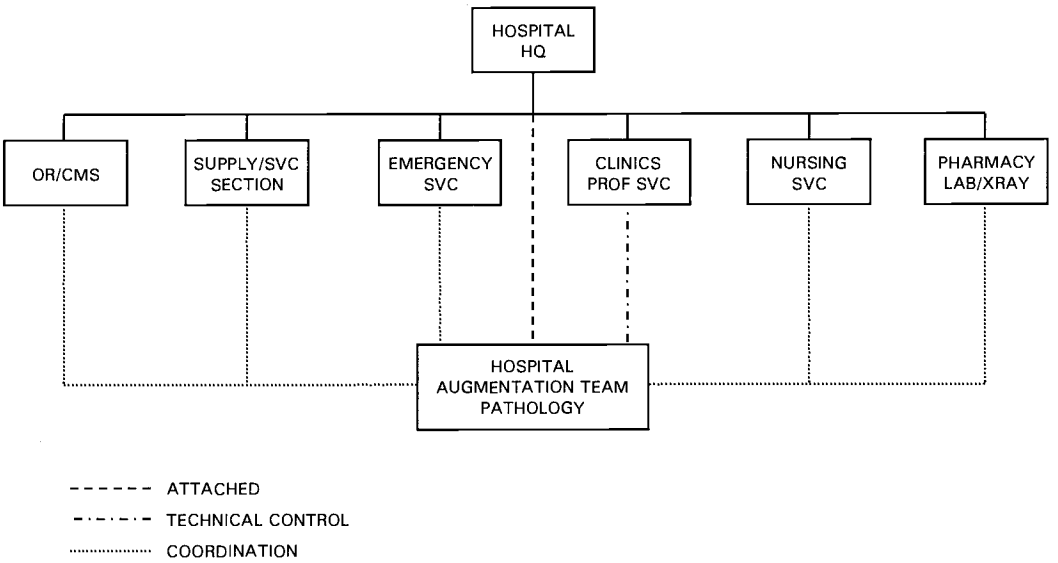


Figure E-1. Hospital augmentation team, pathology operational and command relationship.

APPENDIX F

MEDICAL TEAM, RENAL HEMODIALYSIS, TOE 08537LB00

F-1. Introduction

The medical team, renal hemodialysis was initially developed based on MF2K requirements and was not changed under the MRI. It is a part of and is included in the MRI hospitalization support system.

F-2. Mission

The mission is to provide medical augmentation to corps and EAC hospitals.

F-3. Assignment

Assignment is to a MEDCOM or a medical brigade and may be further attached to subordinate hospitals as required.

F-4. Capabilities

The medical team, renal hemodialysis provides renal hemodialysis care for patients with acute renal failure and consultative services on an area basis.

F-5. Limitations

This team is dependent on—

a. Appropriate elements of the theater or corps for personnel and administrative services, unit CHS, finance, graves registration and legal services, bath and laundry, security and EPW security during processing and evacuation, clothing exchange services, and transportation support when unit is required to relocate.

b. The unit to which it is attached or collocated for sheltered working space, medical logistics, and food service support.

F-6. Basis of Allocation

The basis of allocation for this team is one per theater.

F-7. Mobility

This team requires no organic mobility.

F-8. Employment

The MEDCOM or medical brigade will provide C2 and support to the assigned medical team and will ensure its continued support to the corps and EAC. It will be attached to theater hospitals as required.

F-9. Concept of Operations and Functions

The function of this medical team is to provide support to hospitals as assigned. Its assignment will be determined by the medical planners of the MEDCOM/medical brigade. The operational and command relationship is shown in Figure F-1.

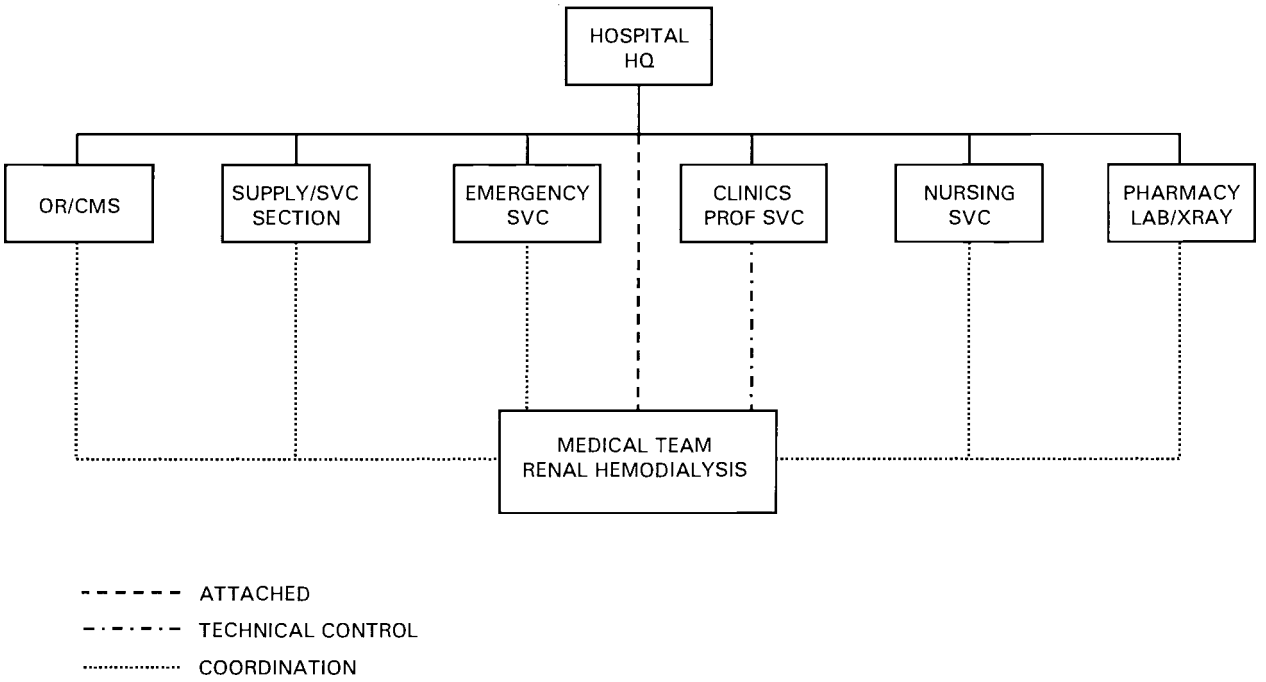


Figure F-1. Medical team, renal hemodialysis operational and command relationship.

APPENDIX G

MEDICAL TEAM, INFECTIOUS DISEASE, TOE 08537LC00

G-1. Introduction

The medical team, infectious disease was initially developed based on MF2K requirements and was not changed under the MRI. It is a part of and is included in the MRI hospitalization support system.

G-2. Mission

The mission of this team is to provide medical augmentation to corps and EAC hospitals.

G-3. Assignment

Assignment is to a MEDCOM or a medical brigade and may be further attached to a subordinate hospital, as required.

G-4. Capabilities

This team provides infectious disease investigative and consultative services to the health service unit to which attached.

G-5. Limitations

This team is dependent on—

a. Appropriate elements of the theater or corps for personnel and administrative services, unit CHS, finance, graves registration and legal services, bath and laundry, security and EPW security during processing and evacuation, clothing exchange services, and transportation support when unit is required to relocate.

b. The unit to which it is attached or collocated for sheltered working space, medical logistics, and food service support.

G-6. Basis of Allocation

The basis of allocation for this team is one per corps.

G-7. Mobility

This team requires no organic mobility.

G-8. Employment

The MEDCOM or medical brigade will provide C2 and support to the assigned medical team and will ensure its continued support to the corps and EAC. It will be attached to a corps hospital as required.

G-9. Concept of Operations and Functions

The function of this medical team is to provide support to hospitals as assigned. The medical planners of the MEDCOM/medical brigade will determine its assignment. The operational and command relationship is shown in Figure G-1.

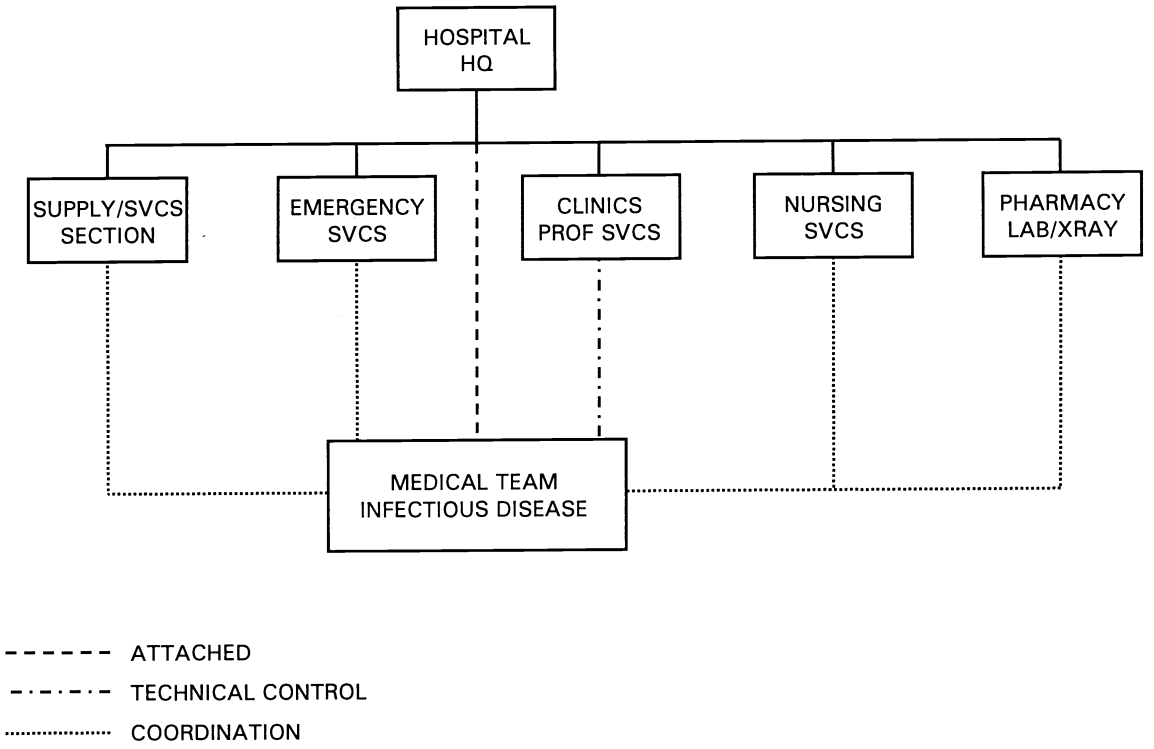


Figure G-1. Medical team, infectious disease operational and command relationship.

APPENDIX H

HOSPITAL PLANNING FACTORS

This appendix provides information for CSH commanders, their staff, and assigned personnel. It contains estimated planning factors for personnel, transportation and movement, supply, personnel service support, CHS planning for hospitalization, and engineer requirements effective as of the date of this publication. **The data is an estimate and is not intended to be all-inclusive**. Fluctuations and changes in the data presented are contingent upon modifications to the TOE, its mission, and the scenario. This appendix does not negate responsibility for the commander and his staff to initiate deployment planning and coordination for his unit based on METT-TC. The CSH TOEs can be accessed at www.usafmsardd.army.mil. Unit assemblages for the CSH can be accessed at www.armymedicine.army.mil/usamma.

Section I. CORPS HOSPITAL PLANNING FACTORS

H-1. Personnel Deployment Planning Factors

	HHD	84-BED	164-BED	TOTAL (248 Bed)
Officer	13	58	82	153
Warrant Officer	2	0	0	2
Enlisted	49	123	179	351
Total	64	181	261	**506**

248-Bed

Personnel-weight (combat equipped, includes 15 lb hand-carry bag)	220 lbs/man (506)	111,320 lbs
Mobilization bag-weight	25 lbs/man	12,650 lbs
Mobilization bag-cube	1 cu ft/man	506 cu ft
Check-in baggage-weight	70 lbs/man	35,420 lbs
Check-in baggage-cube	3 cu ft/man	1,518 cu ft
Total personnel-weight and cube with all gear	**159,390 lbs**	**2,024 cu ft**

HHD

Personnel-weight (combat equipped, includes 15 lb hand-carry bag)	220 lbs/man (64)	14,080 lbs
Mobilization bag-weight	25 lbs/man	1,600 lbs
Mobilization bag-cube	1 cu ft/man	64 cu ft
Check-in baggage-weight	70 lbs/	4,480 lbs
Check-in baggage-cube	3 cu ft/man	192 cu ft
Total personnel-weight and cube with all gear	**20,160 lbs**	**256 cu ft**

84-Bed

Personnel-weight (combat equipped, includes 15 lb hand-carry bag)	220 lbs/man (181)	39,820 lbs
Mobilization bag-weight	25 lbs/man	4,525 lbs
Mobilization bag-cube	1 cu ft/man	181cu ft
Check-in baggage-weight	70 lbs/man	12,670 lbs
Check-in baggage-cube	3 cu ft/man	543 cu ft
Total personnel-weight and cube with all gear	**57,015 lbs**	**724 cu ft**

164-Bed

Personnel-weight (combat equipped, includes 15 lb hand-carry bag)	220 lbs/man (261)	57,420 lbs
Mobilization bag-weight	25 lbs/man	6,525 lbs
Mobilization bag-cube	1 cu ft/man	261 cu ft
Check-in baggage-weight	70 lbs/man	18,270 lbs
Check-in baggage-cube	3 cu ft/man	783 cu ft
Total personnel-weight and cube with all gear	**82,215 lbs**	**1,044 cu ft**

H-2. Logistics Planning Factors (Classes I, II, III, IV, VI, and VIII)

a. Classes of Supply Planning Factor Rates.

Class of Supply	Planning Factor
Class I	4.03 PMD

Class I-Information on available operational rations and menu planning in a TO is available in FM 10-23. The DLA C-8900-SL Federal Supply Classification (FSC) Stock List Group 89, Subsistence, lists the NSNs, item information, and weight and cube information for all operational rations. Menu planning should be coordinated with the theater Class I manager to ensure the availability of the ration mix needed to support medical requirements. At a minimum, a 21-day basic load of medical nutritional supplements should be deployed until the logistical system is fully capable of Class I support.

Class II	3.67 PMD
Class III	53.70 PMD (bulk) 0.59 PMD (packaged)
Class IV	8.500 PMD (includes 4.0 barrier materiel and 4.5 base construction)
Class VI	3.20 PMD

All soldiers should deploy with at least 30 days supply of personal demand items. If exchange support is not readily available or cannot be established, health and comfort items are packaged and issued as a Health and Comfort Pack (HCP). The DLA C-8900-SL FSC Stock List Group 89, Subsistence, lists the NSNs and weight and cube information for the HCP types I (all soldiers) and II (female only). Army Regulation 710-2 provides guidance on planning and requisition of these items. Adjustments in quantity or selection of items in the HCP should be submitted to the theater Class I manager. The issue of HCPs will cease when exchange facilities are available.

Class VIIIA-(PMD planning factors are based on total Army analysis [TAA] 07)

Division	.80 PMD MTW-E
	.94 PMD MTW-W
Corps	.67 PMD MTW-E
	.84 PMD MTW-W
EAC	.53 PMD MTW-E
	.70 PMD MTW-E
Joint Theater	.33 PMD MTW-E
	.53 PMD MTW-W

Legend:

MTW-E—Major theater of war—east
MTW-W—Major theater of war—west
PMD—Pounds per man per day

b. Army Medical Field Feeding Policy. The Army medical field feeding policy for hospitalized patients is three hot meals daily. The meals will consist of Unitized Group Rations (UGR) with the Medical Diet Supplement. The UGR rations is available in two options, UGR Heat and Serve (H&S) which is non-perishable and UGR-A which includes perishable/frozen type entrees. The Medical Diet Supplement can be used with either UGR option. Unitized Group Rations require mandatory enhancements such as bread, milk, and cold cereal for completion. Meals, ready to eat are not authorized for feeding hospitalized patients except in emergencies when other rations are not available. In a mature TO, contract food service may be used to feed hospitalized patients. The Medical Diet Supplement may still be used to modify some diets.

c. Meals Ready to Eat Policy for Soldiers. The Surgeon General's policy on sole source consumption of MREs for soldiers allows MREs to be consumed as the sole source of subsistence for up to 21 days. When available, bread, fruit, and milk as enhancements to the MRE are recommended.

d. Patient Meals. Patients are exempt from the theater rations policy and will receive three prepared hot meals per day. To support 24-hour patient care, the hospital may prepare four meals per

day: breakfast, lunch, dinner, and a night meal. The night meal may utilize a breakfast or lunch/dinner menu according to local procedures.

e. Staff Meals. Staff assigned to medical units will be fed according to the service theater ration policy. However, to simplify procurement, meal preparation, and service, staff may be served the patient regular hot meal if available.

f. Nutrition Care to Humanitarian Support.

(1) In stability operations and support operations, nutrition care services may involve the re-feeding of a healthy population or working with a HN malnourished population. Nutrition care services may be provided directly to the HN population through nutrition assessment, therapeutic feeding, and population-based feeding programs. Indirect nutrition care assistance includes serving as a consultant to the HN medical education system in the development of nutritional care specialists and of nutritional programs for children and adults.

(2) The provision of adequate fluids for rehydration and minimizing the effects of diarrhea is imperative. Technical Manual 8-500 provides guidance on nutrition management rehydration therapy for dehydrated patients. For additional guidance on nutrition care management, contact the Nutrition Care Branch, USAMEDDC&S, 2721 McInode Road, Building 1150, Fort Sam Houston, Texas 78234-6132. The Nutrition Care Branch may also be contacted at Defense Switched Network (DSN) 471-3466 or commercial (210) 221-3466.

g. Management and Planning Blood Requirements.

(1) The management and distribution of blood in the TO is a function of combat health logistics. In the long term, and in a mature theater, blood management is based on resupply from the CONUS blood donor base, using a combination of liquid and frozen blood products. Each CSH stores liquid blood and a combination of liquid and frozen blood products of various groups and types.

(2) Liquid blood products enter the theater through the USAF Blood Transshipment Centers (BTCs) for further distribution to the Army blood support detachment, located with the MEDLOG battalion. The blood support detachment provides collection, manufacturing, storage, and distribution of blood and blood products to division, corps, and EAC MTFs. The blood support detachment is resupplied from a supporting USAF BTC. The blood support detachment commander may also serve as the Area Joint Blood Program Officer (AJBPO) if a DOD AJBPO is not available.

(3) Blood collection in the theater is governed by theater policy, but normally is done to provide platelets for emergency situations. Limited testing of blood drawn in the theater is done to minimize danger to recipients.

(4) Blood shipped into the AO will be packed red blood cells (RBCs) and FFP and, possibly, frozen platelets. Subject to availability, RBCs shipped from CONUS are packed with the following unit group and type distribution:

Blood Group/Type	Distribution
O Rh Positive	40%
O Rh Negative	10%
A Rh Positive	35%
A Rh Negative	5%
B Rh Positive	8%
B Rh Negative	2%

(5) Blood planning factors.

Blood Component	Planning Factor
Red Blood Cells	*4 units for each wounded in action (WIA) and nonbattle injury (NBI) casualty initially admitted to a hospital
Fresh Frozen Plasma	0.08 units for each hospitalized WIA or NBI
Frozen Platelet Concentrate	0.04 units for each hospital WIA or NBI

*For blood planning purposes, only count the WIA or NBI once in the system, not each time the patient is seen or admitted.

(6) The expected admission rates per day are critical in computing initial blood requirements. These rates, along with the above blood planning factors, provide the planner with an initial estimate of daily blood requirements.

Sample Calculations for Initial Blood Requirements

Expected Initial Admission rate for WIA and NBI = 8 per 1,000 per day
Total Personnel = 10,000
RBC Planning Factor = 4 units
Formula:
(Total Personnel/1,000) x Admission Rate Per Day x Factor = Blood or Blood Component Per Day
Example:
(10,000/1,000) x 8 x 4 = 320 units of RBCs per day
(For additional information on blood requirements and calculations, see FM 8-10-9.)

h. Estimated Oxygen Planning Factors and Requirements.

(1) Estimated planning factors.

OR Table: 2.8 liters/min during operational time.
ICU Beds: 4.5 liters/min for 17 percent of the total ICU beds (patients on resuscitator/ventilator).

ICU Beds: 3.1 liters/min for 17 percent of the total ICU beds (patients on nasal cannula/ mask).

Miscellaneous Requirements: An additional factor of 10 percent is applied to the total of OR and ICU requirements to account for oxygen requirements in other areas of the hospital.

(2) Oxygen conversion factors.

1 gal (gaseous oxygen)	=	0.1333 cu ft
95 gal "D" cylinder	=	12.7 cu ft
1650 gal "H" cylinder	=	220 cu ft
1 cu ft (gaseous oxygen)	=	28.317 liters
95 gal "D" cylinder	=	359.63 liters
1650 gal "H" cylinder	=	6229.74 liters

i. Showers.

(1) The Office of The Surgeon General recommends, from a health maintenance perspective, a minimum of one shower and one change of uniform per soldier per week. While this meets the minimum health standard requirements, from a morale standpoint the Army goal is one standard shower and one expedient shower per week with two changes of uniform. The central hygiene and laundry planning factors are based on these two showers and fifteen pounds of laundry per soldier per week.

(2) Central hygiene, shower and laundry water is that which is required by theater Quartermaster elements to provide individual soldier laundry and bath field services. Shower and laundry operations do not require potable water. However, water used for showers should be colorless, odorless, with minimal turbidity, and free from the effects of industrial/municipal discharge. Water used in laundry operations should be free of foreign matter and/or microorganisms. Medical authority may require that water for shower and laundry operations be disinfected prior to use.

j. Wastewater Planning Factors. The hospital should plan for all patient and staff water, and all laundry water requirements to become wastewater.

k. Solid Waste Factors.

(1) Solid waste calculation (estimated):

Total patients (beds) x 15 lbs = total patient solid waste per day
Staff x 12.5 lbs = total staff solid waste per day

(2) Hospital infectious waste planning factors (estimated):

3 lbs (1 cu ft) of infectious waste generated per bed per day

H-3. Hospital Operational Space Requirements

Table H-1 provides estimated operational space requirements that are applicable to both the corps and EAC CSH. Neither this FM nor TC 8-13 will provide exact operational space requirements for all situations.

Due to the modular nature of DEPMEDS, the recommended space requirements serve as guidelines only. The actual space requirement will be dependent on the specific hospital configuration for a given mission, the available terrain, and the terrain topography.

Table H-1. Estimated Operational Space Requirements

164-BED HOSPITAL COMPANY	246,394 SQ FT	÷	43,560 SQ FT PER ACRE	=	5.6 ACRES
84-BED HOSPITAL COMPANY	248,454 SQ FT	÷	43,560 SQ FT PER ACRE	=	5.7 ACRES
248-BED COMBAT SUPPORT HOSPITAL	403,432 SQ FT	÷	43,560 SQ FT PER ACRE	=	9.3 ACRES

H-4. Estimated Hospital Water Planning Factors

a. Table H-2 provides **estimated** water planning factors that are unique to the CSH. The planning factors are applicable to both the corps and EAC CSH. Estimated water requirements for the 44-bed increment can be determined from the data presented. The table **does not** include the DA water planning factors, which are common to all Army elements. Paragraph *b* provides estimated water planning factors for operations under a chemical environment. To compute detailed water requirements, use the planning factors published in Chapter 3 and Appendix B of FM 10-52.

b. Estimated water planning factors while operating under a chemical environment.

(1) Decontamination.

Individual	7 gal/decon
Major end item	380 gal/decon
Vehicle	450 gal/decon

(2) Vehicle maintenance.

1/2 gal per vehicle (temperate)
1 gal per vehicle (hot climate)

(3) Estimated water consumptive factors (under chemical environment, 72-hour scenario).

Staff	
Drinking	1.5 gal/man/day
Hygiene	1.0 gal/man/day
Feeding	0.25 gal/man/day
Patient Care	4 gal/patient/bed/day
Surgical	3 gal/case/day

Table H-2. Estimated Hospital Water Planning Factors

	GALS/	248 BED HOSPITAL	248 BED HOSPITAL	164 BED HOSPITAL	164 BED HOSPITAL	84 BED HOSPITAL	84 BED HOSPITAL	MC MED DET	MC MED DET	HHD	HHD
PATIENT CARE		FACTORS	TOTAL	FACTORS	TOTAL	FACTORS	TOTAL	FACTORS	TOTAL	FACTORS	TOTAL
CLEAN UP (GAL/BED/DAY)	1.00	248	248	164	164	84	84	120	120		
BED BATH (GAL/BED PATIENT/DAY)	2.75	248	682	164	451	84	231	0	0		
BED PAN WASH (GAL/BED/DAY)	1.50	248	372	164	246	84	126	0	0		
LAB (GAL/BED/DAY)	0.20	248	49.6	164	32.8	84	16.8	0	0		
STERLIZER (GAL/UNIT/DAY)	45.00	12	540	8	360	4	180	0	0		
X-RAY PROCESSOR (GAL/UNIT/DAY)	5.00	3	15	2	10	1	5	0	0		
HANDWASHING (GAL/BED/DAY)	2.00	248	496	164	328	84	168	120	240		
SHOWERS(GAL/AMBULATORY/ PATIENT/BED/DAY)	3.40	0	0	0	0	0	0	120	408		
TOTAL (GAL/DAY)			2402.60		1591.80		810.80		768.00		
SURGICAL											
SCRUB (GAL/CASE/DAY)	80.00	48	3840	32	2560	16	1280	0	0		
INSTRUMENT RINSE (GAL/CASE/DAY)	20.00	48	960.00	32	640	16	320	0	0		
INSTRUMENT CLEANING (GAL/UNIT/DAY)	70.00	3	210	2	140	1	70	0	0		
OPERATING ROOM CLEAN-UP (GAL/CASE/DAY)	3.00	48	144	32	96	16	48	0	0		
TOTAL (GAL/DAY)			5154		3436		1718		0		
HOSPITAL LAUNDRY											
LINEN (GAL/LBS/DAY)	3.00	819.25	2457.75	519.59	1558.77	299.66	898.98	202.26	606.78		
TOTAL (GAL/DAY)			2457.75		1558.77		898.98		606.78		
STAFF/PATIENT GENERAL											
STAFF (GALS/UNIFORM/ DIRECT CARE WORKER/DAY)	3.20	365	1168	225	720	140	448	40	128	68	68
FOOD PREP (GALS/MEAL/DAY)											68
SHOWERS (GAL/DIRECT CARE WORKER/DAY)	1.00	692	692	432	432	260	260	40	40		
TOTAL (GAL/DAY)	3.40	365	1241	225	765	140	476	40	136		
			3101		1917		1184		304		
GRAND TOTAL (GAL/DAY)			**13115.35**		**8503.57**		**4611.78**		**1678.78**		

Section II. ECHELONS ABOVE CORPS HOSPITAL PLANNING FACTORS

H-5. Personnel Deployment Planning Factors

	HHD	84-BED	164-BED	TOTAL (248 Bed)
Officer	15	81	67	163
Warrant Officer	2	0	0	2
Enlisted	36	182	78	296
Total	53	263	145	**461**

248-Bed

Personnel-weight (combat equipped, includes 15 lb hand-carry bag)	220 lbs/man (461)	101,420 lbs
Mobilization bag-weight	25 lbs/man	11,525 lbs
Mobilization bag-cube	1 cu ft/man	461 cu ft
Check-in baggage-weight	70 lbs/man	32,270 lbs
Check-in baggage-cube	3 cu ft/man	1,383 cu ft
Total personnel-weight and cube with all gear	**145,215 lbs**	**1,844 cu ft**

HHD

Personnel-weight (combat equipped, includes 15 lb hand-carry bag)	220 lbs/man (53)	11,660 lbs
Mobilization bag-weight	25 lbs/man	1,325 lbs
Mobilization bag-cube	1 cu ft/man	53 cu ft
Check-in baggage-weight	70 lbs/man	3,710 lbs
Check-in baggage-cube	3 cu ft/man	159 cu ft
Total personnel-weight and cube with all gear	**16,695 lbs**	**212 cu ft**

84-Bed

Personnel-weight (combat equipped, includes 15 lb hand-carry bag)	220 lbs/man (263)	57,860 lbs
Mobilization bag-weight	25 lbs/man	6,575 lbs
Mobilization bag-cube	1 cu ft/man	263cu ft
Check-in baggage-weight	70 lbs/man	18,410 lbs
Check-in baggage-cube	3 cu ft/man	789 cu ft
Total personnel-weight and cube with all gear	**82,845 lbs**	**1,052 cu ft**

164-Bed

Personnel-weight (combat equipped, includes 15 lb hand-carry bag)	220 lbs/man (145)	31,900 lbs
Mobilization bag-weight	25 lbs/man	3,625 lbs
Mobilization bag-cube	1 cu ft/man	145 cu ft
Check-in baggage-weight	70 lbs/man	10,150 lbs
Check-in baggage-cube	3 cu ft/man	145 cu ft
Total personnel-weight and cube with all gear	**45,675 lbs**	**580 cu ft**

H-6. Logistics Planning Factors (Classes I, II, III, IV, VI, and VIII)

The logistics planning factors for Class I, II, III, IV, VI, and VIII for the EAC CSH are the same as the corps CSH planning factors identified in paragraph H-2.

a. Estimated Water Planning Factors (Gallons of Water Per Day). See paragraph H-4. The major difference between the corps CSH and the EAC CSH water estimate is the laundry requirement. The corps CSH has organic laundry capability for patient-related linens while the EAC CSH does not. The difference in personnel authorizations will have minimal impact on overall water calculations. Otherwise, all other estimated water calculations remain the same.

b. Showers. See Paragraph H-2*i*.

c. Laundry. The Surgeon General's policy statement (theater hospital laundry support) states that hospitals operating in the COMMZ will use area support facilities for laundry. Planning for establishing hospitals in the COMMZ normally will include the provision of shower facilities for patients. Clothing exchange functions will be a responsibility of the medical holding element.

d. Wastewater Planning Factors. The hospital should plan for all patient and staff water and all laundry water requirements to become wastewater.

e. Solid Waste Factors.

(1) Solid waste calculation (estimated):

Total patients (beds) x 15 lbs = total patient solid waste per day
Staff x 12.5 lbs = total staff solid waste per day

(2) Hospital infectious waste planning factors (estimated):

3 lbs (1 cu ft) of infectious waste generated per bed per day

Section III. 84-BED HOSPITAL COMPANY (CORPS) FIRST INCREMENT (44-BED)

The 44-bed first increment is composed of assets from the corps 84-bed hospital company. The concept of the first increment is to provide the hospital commander flexibility with an immediate deployable element of the corps 84-bed hospital company to support contingencies with an immediate follow-on of the remainder of the hospital. The corps 84-bed hospital company may also be used as the hospital element of a CHS task force that requires early Echelon III hospital support where a CSH is not practical. The emphasis of the first increment is on surgery and intensive care. The first increment will require augmentation from the HHD as determined by the hospital commander. The first increment is not a stand-alone element and requires early coordination for sustainment (water, fuel, blood, Class VIII supplies, and force protection). The mission and the hospital commander's assessment of METT-TC will determine the required functions and capabilities of the first increment.

a. The following is a suggested number of personnel for the 44-bed first increment of the corps 84-bed hospital company. The hospital commander will determine the personnel composition based on METT-TC.

FUNCTION	84-BED	44-BED
OR/CMS	24	24
Anesthesia Section	7	7
EMT/Triage	16	16
Nursing Service Section	2	1
Intensive Care Ward	28	28
Intermediate Care Ward	33	11
Pharmacy Section	6	6
Laboratory, General and Blood Bank	7	7
Radiology Section	4	4
Specialty Clinics	8	0
Company Headquarters	7	2
C/E Section	3	3
Patient Administration Section	5	5
Nutrition Care Section	9	9
Supply and Service Section	20	13
Ministry Section	2	0
TOTAL	**181**	**136**

b. Personnel deployment planning factors.

Personnel-weight (combat equipped, includes 15 lb hand-carry bag)	220 lbs/man (136)	29,920 lbs
Mobilization bag-weight	25 lbs/man	3,400 lbs
Mobilization bag-cube	1 cu ft/man	136 cu ft

Check-in baggage-weight	70 lbs/man	9,520 lbs
Check-in baggage-cube	3 cu ft/man	408 cu ft
Total personnel-weight and cube with all gear	**42,840 lbs**	**544 cu ft**

c. The following are the capabilities of the 44-bed first increment:

- Twenty-four hour operations.
- Three days of supply.
- Tactical mobility (100 percent mobile for unit equipment; transportation support will be required for personnel).
- Supports Force XXI forces.
- Thirty-six OR table hrs/day (3 hrs per case, 12 cases per day = 44 required beds).

Section IV. STRATEGIC MOVEMENT REQUIREMENTS

The following tables provide strategic movement data for the CSH and detachments and teams that may be attached. The automated air loading planning system was used to develop the strategic movement requirements. The data was computed based on requirements and not authorizations. Commanders and medical planners should use the modified TOE to compute the unit's specific movement data based on unit loads tailored for the mission. Hospital commanders should ensure that selected staff members of the HHD, 84-bed and 164-bed medical companies attend a unit movement course to enhance strategic deployment. For information on the Unit Movement Officer Deployment Planning Course, contact the Commandant, US Army Transportation School, ATTN: ATSP-TDD-SD, Fort Eustis Virginia 23604-5001. The telephone number is DSN 927-1575, commercial (804) 878-1575. Table H-3 provides strategic and surface deployment data for the corps and EAC CSH.

Table H-3. Strategic/Surface Deployment Data

UNIT	SRC	WEIGHT (LBS)	CUBIC FT	SQ FT	TRANSPORT MODES						PASSENGER (AIR)	
					AIR			SURFACE				
					PURE FLEET TOTAL			SHIP BY % SQ FT		RAIL		
					C141	C17	C5	RORO	LMSR	(STD 89' CAR)	PAX	B747 (400 SEAT)
CSH (EAC)*	08855A000	1,641,032	164,146	22,679	23	12	7	12.9%	7.6%	36	461	115%
CSH (EAC)**	08855A000	1,930,487	200,668	28,965	34	18	12	16.5%	9.8%	45	461	115%
CSH (CORPS)*	08955A000	1,664,328	172,178	23,847	23	12	7	13.5%	8.0%	37	513	128%
CSH (CORPS)**	08955A000	2,507,986	242,504	34,075	48	25	15	19.4%	11.5%	61	513	128%
CSH, HHD (CORPS)*	08956A000	79,247	7,273	913	2	1	1	0.5%	0.3%	2	53	13%
CSH, HHD (CORPS)**	08956A000	156,066	17,786	2,253	3	2	1	1.3%	0.8%	5	53	13%
CSH, 84 BED (CORPS)*	08958A000	568,699	59,198	8,069	8	4	3	4.6%	2.7%	13	184	46%
CSH, 84 BED (CORPS)**	08958A000	1,135,207	136,836	13,868	24	12	7	7.9%	4.7%	28	184	46%
CSH, 44 BED 1ST ECH*	N/A	473,950	47,021	6,381	7	4	2	3.6%	2.1%	10	139	35%
CSH, 44 BED 1ST ECH**	N/A	980,118	118,948	11,184	20	11	6	6.4%	3.8%	22	139	35%
CSH, 164 BED (CORPS)*	08957A000	1,016,385	105,708	14,865	14	7	5	8.4%	5.0%	22	265	66%
CSH, 164 BED (CORPS)**	08957A000	1,216,717	130,811	19,553	22	11	7	11.1%	6.6%	28	265	66%
MED DET, MIN CARE*	08949A000	181,305	16,600	2,083	3	2	1	1.2%	0.7%	4	39	10%
HOSP AUG TM, HEAD AND NECK*	08527AA00	64,221	5,650	709	2	1	1	0.4%	0.2%	2	18	5%
HOSP AUG TM, HEAD AND NECK**	08527AA00	69,921	6,412	818	2	1	1	0.5%	0.3%	2	18	5%
HOSP AUG TM, PATHOLOGY*	08537AA00	32,816	3,381	424	1	1	1	0.2%	0.1%	1	10	3%
HOSP AUG TM, PATHOLOGY**	08537AA00	38,516	4,143	533	1	1	1	0.3%	0.2%	1	10	3%
HOSP AUG TM, SPEC CARE*	08538AA00	19,907	1,685	211	1	1	1	0.1%	0.1%	1	11	3%
MED DET, TELEMED*	08539AA00	24,768	1,924	241	1	1	1	0.1%	0.1%	1	22	6%
MED DET, TELEMED**	08539AA00	88,086	11,849	1,818	2	1	1	1.0%	0.6%	3	22	6%
MED TM, RENAL HEMODIALYSIS*	08537LB00	20,204	1,727	217	1	1	1	0.1%	0.1%	1	4	1%
MED TM, INFECTIOUS DISEASE*	08537LC00	23,964	1,990	250	1	1	1	0.1%	0.1%	1	3	1%

NOTE: The percentage figures in the RORO, LMSR, and B747 columns are the SRC space requirements of the ship capacity.

LEGEND:

LMSR Large Medium Speed Roll-On/Roll-Off
PAX Passenger
RORO Roll-On/Roll-Off
SRC Standard Requirement Code
STD Standard

* (MRI-OBJ) without vehicles and equipment
** (MRI-OBJ) with vehicles and equipment

APPENDIX I

FIELD WASTE

The accumulation and disposal of waste of all types is a major concern on the modern battlefield. Improper handling and disposal of field waste can adversely impact military operations by leaving an operational footprint and causing health and sanitation problems, to include serving as breeding grounds for rodents and arthropods that cause disease. Further, the accumulation of waste contributes to environmental contamination.

Section I. OVERVIEW

I-1. General

Army policy is that all solid and hazardous waste will be disposed of in an environmentally acceptable manner consistent with good sanitary engineering principles and the accomplishment of unit mission. While operating OCONUS, either in training or actual contingency operations, the theater commander will determine the applicability of both US and host-country policies.

I-2. Responsibility for Disposal of Waste

a. Depending on the nature and volume of waste created, units generating the waste are normally responsible for its collection and disposal.

b. Certain types of waste require special handling that may be beyond the capability of the unit or facility. Units generating larger amounts of solid/liquid waste, such as hospitals, may not have the resources or equipment to properly dispose of the waste. In these cases, supporting engineer units should be contacted to provide waste disposal support.

I-3. Categories of Waste

Waste can be subdivided into five distinct categories: general waste (including solid waste), hazardous waste, medical waste, human waste, and wastewater. Any military unit can generate nonmedical solid waste (general and hazardous waste). Medical waste is only generated by medical elements, such as treatment, research, and laboratory. Supporting engineer and PVNTMED personnel can provide guidance and assistance on the handling, processing, and disposing of waste.

a. *General Waste*. This category includes all waste not specifically classified as medical waste or hazardous waste. It includes such items as—

- Paper and plastic products (which are by far the most abundant solid waste generated in a field environment).

- Garbage (generated by dining facilities).

- Scrap material (wood, metal, and so forth).

b. *Hazardous Waste*. This includes waste that is ignitable, corrosive, reactive, or toxic, especially petroleum, oils, and lubricants (POL) and some chemicals. Hazardous waste usually requires special handling, transportation, disposal, and documentation, or treatment to render it nonhazardous.

c. *Medical Waste*. There are two types of medical waste; nonregulated and regulated. Nonregulated medical waste is defined as solid material generated from the direct result of patient diagnosis, treatment, or therapy that requires no further treatment and can be disposed of as general waste. Regulated medical waste (RMW) is defined as medical or laboratory waste that is potentially capable of causing disease in people and may pose a risk to individuals or public health if not handled or treated properly. An example of this type of medical waste includes soiled dressings, bandages, disposable catheters, swabs, used disposable drapes, gowns, masks, and gloves, empty used specimen cups, and gauze or cotton rolls, to include saliva-soaked and blood-tinged gauze.

d. *Human Waste*. This waste is comprised of feces and urine.

e. *Wastewater*. Wastewater is sometimes further classified as "black" or "gray" wastewater. "Black" wastewater contains biological waste (feces, blood, urine, and so forth). All other domestic wastewater (shower, laundry, kitchen, and so forth) is referred to as "gray water." For all practical purposes and from a public health perspective, gray water should be considered sewage and should be treated as such.

Section II. GENERAL AND HAZARDOUS WASTE

I-4. General

All military units produce general and hazardous waste. Control and disposal of these types of waste requires planning and the development of unit SOP.

I-5. Sources of General and Hazardous Waste

a. The primary sources of general and hazardous waste are—

- Routine troop support operations.
- Maintenance and motor pool operations.
- Administrative functions.
- Dining facility operations.

- Medical treatment facilities.

b. In all of these operations or functions, a major effort must be made to reduce the amounts of waste generated and, thus, to lessen the burden on the disposal system.

I-6. Disposal of General and Hazardous Waste

Most general waste is buried or burned by the generating element. It can be transported in organic vehicles to a waste disposal point (sanitary landfill). It is important to remember that vehicles used to transport waste must be properly cleaned and sanitized before being used for ration or patient transportation operations. During training exercises, supporting engineers are responsible for the construction and operation of landfills.

a. Putrescible waste from dining facilities, while not hazardous or infectious in and of itself, can become a serious aesthetic problem, as well as a breeding site for disease-carrying rodents and arthropods. This class of solid waste must be removed and disposed of after every meal. Burial of this type waste should be at least 30 yards (or meters) from the food service facility. Normally, one garbage pit is required per 100 soldiers per day (FM 21-10-1).

b. Used oil and POL products are classified as hazardous waste. Disposal methods for this waste must comply with federal, state, local, and HN regulations. Military engineer and PVNTMED support elements can advise on required disposal procedures.

Section III. MEDICAL WASTE

I-7. General

Regulated medical waste is the category of medical waste that requires special handling, treatment, and/or disposal. Classes of RMW are as follows:

a. *Class 1 - Culture Stocks and Vaccines*. Cultures and stocks of infectious agents and associated biologicals, including cultures from medical and pathological laboratories, discarded live and attenuated vaccines, and culture dishes and devices used to transfer, inoculate, and mix cultures. (All other laboratory waste except Class 2 and Class 3 is considered general waste.)

b. *Class 2 - Pathological Waste*. Human pathological waste, including tissues, organs, body parts, extracted human teeth, and body fluids removed during surgery or autopsy and during other medical procedures as well as specimens of body fluids.

c. *Class 3 - Blood and Blood Products*.

(1) Free-flowing human blood, plasma, serum, and other blood derivatives that are waste (for example, blood in blood bags, blood and/or body drainage in suction containers).

(2) Items such as gauze or bandages, saturated or dripping with human blood, including items produced in dental procedures, such as gauze or cotton rolls saturated or dripping with saliva.

d. Class 4 and 7 - All Used and Unused Sharps. Sharps used in animal or patient care or treatment in medical, research, or support laboratories (including hypodermic needles, syringes [with or without the attached needle], Pasteur pipettes, scalpel blades, blood collection tubes and vials, test tubes, needles attached to tubing, and culture dishes [regardless of presence of infectious agents]). Other types of broken or unbroken glassware that were in contact with infectious agents (for example, used slides and cover slips).

e. Class 5 - Animal Waste. Animal carcasses, body parts, and bedding contaminated or suspected of contamination with infectious agents. Roadkills, euthanized animals, and animals dying of natural causes are not considered Class 5.

f. Class 6 - Isolation Centers for Disease Control and Prevention Risk Group IV Waste. Biological waste and discarded materials contaminated with blood, excreta, or secretions from humans or animals isolated to protect others from highly communicable diseases. Disease agents classified in Centers for Disease Control and Prevention Risk Group IV are considered highly communicable.

I-8. Responsibility for Disposal of Medical Waste

a. The hospital commander is responsible for implementing polices for medical waste management to include—

- Identification.
- Segregation.
- Handling.
- Storage.
- Disposal.
- Transportation.

b. The hospital commander will normally designate a member of his staff to serve as the infectious disease control officer. This officer assists the hospital commander in establishing infectious disease control procedures. Infectious disease control procedures are established to preclude the spread of infection within the hospital and to prevent the spread of infectious disease outside the facility.

c. The PVNTMED advisor is responsible for providing the commander with technical guidance on properly managing medical waste.

d. Medical treatment personnel are responsible for the proper identification, segregation, and handling of medical waste generated during patient care.

e. Supply and Service Division is responsible for the handling, transportation, and disposal of the medical waste.

I-9. Source of Medical Waste

The major sources of medical waste are patient care areas, especially the emergency room or EMT/triage areas, ORs, and ICUs. Medical wards and laboratories are also medical waste generators. The actual amount of medical waste generated is dependent on the intensity and nature of medical operations.

I-10. Handling and Transporting Medical Waste

a. Proper handling is the key to an effective hospital waste program. Segregation of RMW from general waste at the point of generation is a must. Procedures for handling medical waste are as follows:

- Personnel who transport and dispose of RMW must wear a disposable mask, butyl rubber apron, and gloves.

- Regulated medical waste is collected in double-lined impervious containers lined with leak-resistant bags; otherwise, double plastic bags are used. The containers are clearly marked as RMW. All bags are sealed after being filled to only two-thirds capacity. The bags are sealed by lapping the gathered open end and binding it with tape or a closure device. This ensures that liquid waste cannot leak. A method of segregating RMW from general waste is the use of distinctly colored bags (red) for RMW, if available (AR 40-5).

- Sharps are placed in a rigid, puncture resistant container clearly marked with the universal biohazard symbol.

NOTE

Needle/syringe clippers are not authorized for use.

- Blood, blood products, and semisolid waste are placed in unbreakable capped or stoppered containers.

- Medical waste is stored in designated areas, either secured or under direct physical control.

- Regulated medical waste is removed from the point of generation and is disposed of at least every 24 hours.

b. Medical waste within the hospital is transported in rigid, leakproof containers, marked and used exclusively for transportation purposes. A vehicles used to transport medical waste to disposal sites must not be used to transport rations, clean laundry, or medical supplies, or used for other purposes until after the vehicle has been thoroughly cleaned and sanitized, using a 5 percent chlorine solution (48 ounces of chlorine granules in 5 gallons of water).

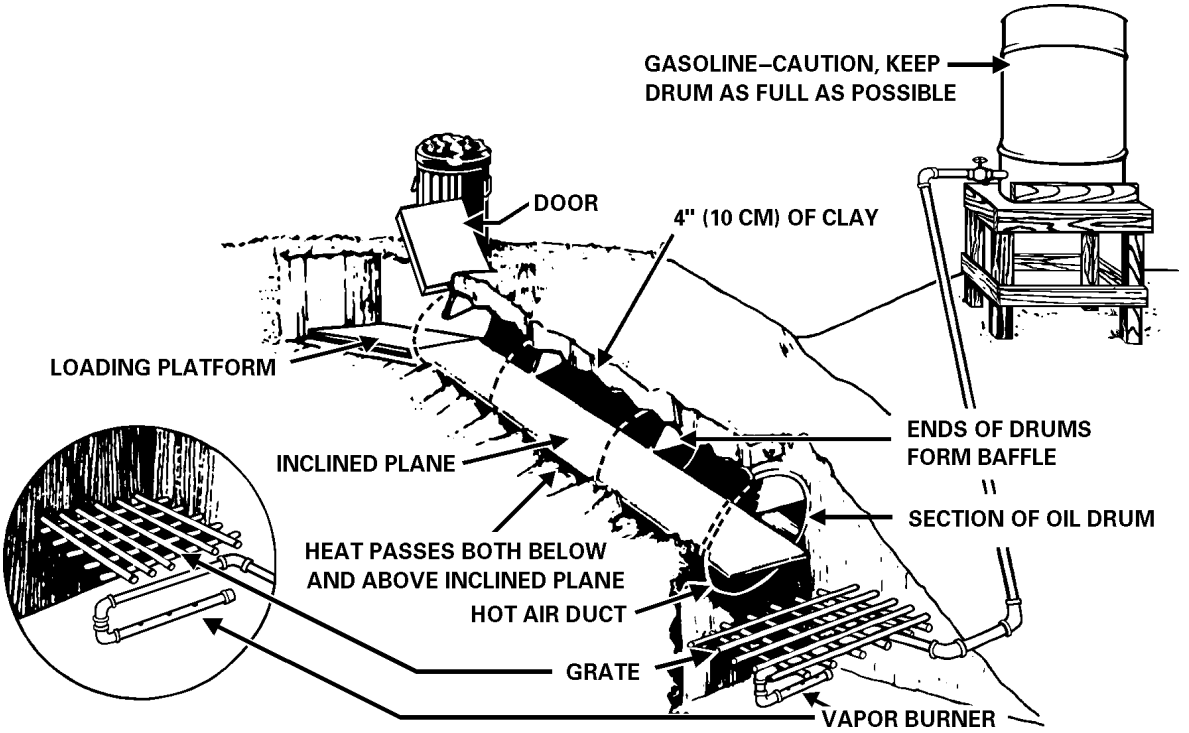
I-11. Disposal of Medical Waste

The purpose of properly treating and disposing of medical waste is to render it nonpathogenic, unrecognizable, and to make it unusable (sharps). Depending on the quantity and type of waste, command policies, and availability of disposal facilities and engineer support, a variety of options exist. Every effort should be made to use the safest and most complete method of disposing of this waste.

a. *Training and Tactical Deployment*. During training deployment in CONUS and training/ tactical deployment in many OCONUS locations (such as European), the HN environmental regulations are such that disposal of medical waste via field expedient methods is not permitted. Furthermore, the quantities and types of medical waste generated during training are relatively limited due to the limited amount of actual patient care. As such, the option of choice is to haul the medical waste, via military vehicle or contract services, to fixed installations (preferably large fixed medical facilities) for treatment and disposal according to command policies. While proper field medical waste techniques are difficult or against regulation to train in the field, it is still important to plan for during operations. The requirements for segregating and handling waste are critical and remain an essential part of training.

b. *Steam Sterilization*. Some types of medical waste, especially in small quantities, can be rendered nonpathogenic by autoclave (steam sterilization). This technique or system is particularly appropriate for small amounts of waste generated in EMT areas and the laboratory element (for example, contaminated dressings, needles, syringes, cultures, culture plates, pipettes, and blood tubes). To ensure complete disinfection, the steam sterilizer must operate at a minimum of 250 degrees Fahrenheit (121 degrees centigrade), under 15 to 17 pounds of pressure per square inch, for 45 minutes. Two factors must be kept in mind when using the autoclave—the size of the load placed in the chamber and the exposure time. There are a number of different types of autoclaves; therefore, for detailed information on the operation of a specific autoclave, refer to the manufacture's instructions or TM. Do not ever autoclave waste in a sterilizer that is used to prepare sterile packs or instruments for medical uses. Also, some plastics (red bags) and sharps containers may melt during an autoclave cycle, causing uncontained waste to stick to the autoclave. It may be necessary to use autoclave bags that can withstand the physical conditions produced by the sterilizer.

c. *Controlled Incineration*. Incineration is the method of choice for most types of medical waste, but it must be controlled. Burning medical waste requires incinerators specifically designed for the various types of medical waste. During OCONUS mobilization deployment, an inclined plane incinerator (Figure I-1) is a field expedient method when no other option is available. For the hospital to build and use this incinerator, there should be no immediate plans to relocate the hospital. This field expedient incinerator is a controlled open air burning method that can be used for burning small amounts of medical waste; however, command approval must be given prior to its use. Thorough consideration must be given to all available options before deciding to implement the open air burning method.



THIS INCINERATOR WILL DISPOSE OF TRASH AND MEDICAL WASTE FROM A CSH OR A SMALLER-SIZED MTF. THE COMBUSTION ACHIEVED BY THIS INCINERATOR AND THE FACT THAT IT IS NOT AFFECTED BY LIGHT RAIN OR WIND MAKES IT AN EXCELLENT IMPROVISED DEVICE. TIME AND SKILL, HOWEVER, ARE REQUIRED IN BUILDING IT. A SHEET METAL PLANE IS INSERTED THROUGH TELESCOPED OIL DRUMS FROM WHICH THE ENDS HAVE REMOVED. A LOADING OR STOKING PLATFORM IS BUILT; THEN ONE END OF THE PLANE DRUM DEVICE IS FASTENED TO IT, THUS CREATING AN INCLINED PLANE (FM 21-10-1). A GRATE IS POSITIONED AT THE LOWER END OF THE PLANE, AND A WOOD OR FUEL OIL FIRE IS BUILT UNDER THE GRATE. AFTER THE INCINERATOR BECOMES HOT, DRAINED WASTE MATERIAL IS PLACED ON THE STOKING PLATFORM. AS THE WASTED DRIES, IT IS PUSHED DOWN THE INCLINE IN SMALL AMOUNTS TO BURN. FINAL COMBUSTION TAKES PLACE ON THE GRATE. THE OPERATOR OF THIS DEVICE MUST WEAR GLOVES, A BUTYL RUBBER APRON, AND A DISPOSABLE MASK.

Figure I-1. Improvised inclined plane incinerator.

NOTE

In all cases, ash from waste incineration must be buried.

d. Disposal by Burying. As a last resort, and with command approval, medical waste can be buried. Engineer support is required for construction of the waste disposal site. The waste must be covered immediately with refuse (trash) then soiled to ensure the waste is not accessible to scavenging. All previous options are considered before accepting burial as the final option. Close coordination with PVNTMED personnel and HN authorities is essential.

Section IV. HUMAN WASTE

I-12. General

Correct human waste (feces and urine) disposal is essential to prevent the spread of diseases caused by direct contact, contamination of water supplies, or dissemination by rodents or arthropods. It is even more critical in a hospital environment because patients are more susceptible to diseases transmitted through fecal contact. All human waste must be disposed of in a manner consistent with command policy and good sanitary engineering practices.

I-13. Responsibility for Disposal of Human Waste

The hospital commander is responsible to provide human waste disposal facilities. This may require the supporting engineer element to assist in the construction of latrine facilities.

a. *Field Medical Treatment Facilities*. In some locations, construction and use of actual field expedient waste facilities may be prohibited. In this case, one option is to obtain engineer support. The option of choice is to establish the hospital in an area with permanent or semipermanent latrine facilities already constructed and connected to an established sanitary sewer system. However, this may only be possible in areas designated as deployment sites. In many instances, it may be possible for hospitals to contract waste removal or latrine facilities through a HN support contract. Procedures will vary depending on the command policy and local (HN) agreements, but waste will still have to be separated into types by the unit. The use of chemical or self-contained toilets is another option instead of constructing field expedient latrines. In all types of arrangements, the hospital field sanitation team and PVNTMED personnel are responsible for monitoring the achievement of field sanitation requirements (FM 21-10-1).

b. *Field Expedient Facilities*.

(1) *Type selection*.

(*a*) The type of field latrine selected for a given situation depends on a variety of factors, such as—

- Number of personnel (staff and patients).
- Duration of stay at the site.
- Geological and climatic conditions.

(*b*) Supporting PVNTMED personnel and the hospital's field sanitation team can assist the commander in determining the appropriate type of latrines, their locations, and size.

(*c*) Specific guidance on selection criteria is provided in FMs 21-10 and 21-10-1.

(2) *Location*. Latrines should be located in a manner that prevents the contamination of food and water. Hospital latrines are located at least 100 yards (90 meters) downwind (prevailing wind) from the hospital food service facility, at least 100 feet (30 meters) from any ground water source, and at least 30 yards from the hospital perimeter but within reasonable distance for easy access (FM 21-10-1). For the CSH, multiple latrine sites are required due to the size of hospital layout and distances between patient care, administrative, and sleeping areas.

(3) *Maintenance*. Sanitation and maintenance of the hospital's latrine facilities are critical to prevent disease transmission. Handwashing facilities must be placed at each latrine.

c. *Closing and Marking*. Closing and marking of latrines will be in accordance with command policy and good field sanitation practice in accordance with FMs 21-10 and 21-10-1.

I-14. Patient Facilities

a. Ambulatory patients will use the same latrines as the staff. The number of latrines established will be based on both the number of staff and the anticipated patient load. However, male and female latrines are required. Latrines need to be close enough to the ward areas for convenience of access while maintaining distances from dining facilities, water sources, and the like.

b. Nonambulatory patients require the use of bedpans and urinals. Disposal (of feces and urine) and sanitation of bedpans and urinals for the nonambulatory patient is a major concern. One or more of the hospital latrines should be designated for bedpans and urinals, to include their cleaning and sanitizing. Once the bedpans and urinals are emptied, they are washed (using a brush) with the wastewater disposed of in the latrine or designated area. The bedpan is then sanitized by submerging it into hot boiling water for 30 seconds.

NOTE

A hook or some device should be used to prevent hand contact with the boiling water.

The bedpan is placed on a tent peg or some hanging device to air dry. The sinks within the hospital will not be used for bedpan or urinal disposal or washing. An area should be established similar to that of a mess kit laundry line, using metal garbage cans and immersion heaters. One can must have warm soapy water and the other can must have clear boiling water. These cans must be clearly marked for use in cleaning bedpans and urinals only.

NOTE

Personnel working with immersion heaters should be aware of the safety precautions and be trained in immersion heater operation and lighting.

An alternative consideration is the use of plastic bedpan liners. If plastic liners are used, they will reduce the requirement for cleaning and sanitizing the bedpan. The plastic linings will then be managed as solid waste.

Section V. WASTEWATER

I-15. General

Water usage generally results in the production of wastewater that requires disposal. Depending on the source, wastewater may contain suspended solids and particulate matter, organic material, grease, dissolved salts, biological, pathological, and pathogenic organisms, and toxic elements. Just the volume of wastewater alone, without consideration of the various contaminants, can cause substantial operational and health-related issues if not properly managed and disposed.

I-16. Requirement for Disposal

a. All wastewater and waterborne waste generated in a field environment must be collected and disposed of in a manner that—

- Protects water resources from contamination.
- Preserves public health while minimizing mission impairment or adversely impacting on the readiness of the force.
- Protects the local environment from adverse harm.
- Complies with applicable environmental law.

b. When operating OCONUS, or in an actual contingency operation, units may have to comply with applicable HN laws and procedures. Commanders should consult their servicing Staff Judge Advocate for specific legal advice about environmental legal requirements. Irrespective of laws and regulations, proper disposal of wastewater is essential to protect the health of the force by precluding contamination of water supplies and development of rodent and arthropod breeding sites.

I-17. Responsibility for Disposal

Units generating wastewater in the field are responsible for their own wastewater collection and disposal. Large volume wastewater generators, such as hospitals, may require engineer support. Theater combat engineers will provide support during OCONUS deployments or contingency operations. In any case, the hospital commander has the final responsibility for coordinating disposal of his unit's wastewater.

I-18. Wastewater Sources and Collection

Hospitals generate a significant volume of wastewater corresponding to the volume of water consumed. A conservative estimate of wastewater volume for planning purposes is that 80 percent of all water used (other than human consumption) will end up as wastewater. Support operations of the hospitals, such as laundry, shower, and food service operations, generate the largest volumes of wastewater. While this type of wastewater is not unique to a hospital, it contributes to an enormous volume requiring collection and disposal. However, wastewater generated from direct patient care functions is unique to the hospitals and may be contaminated with blood, other body fluids, particulate matter, and potentially infectious organisms. In addition to the quantity of wastewater, an added problem is the multiplicity of sources within the hospital that contribute to the complexity of collection.

a. Field Sinks. Field sinks are a primary source of wastewater from staff handwashing, patient hygiene, instrument cleaning, and the like. This liquid waste is generated intermittently and the volume is highly variable depending on the functional area and patient workload. The sinks can operate with the drain line placed in an empty 5-gallon water can. This can must be periodically emptied into a disposal system.

NOTE

Extreme care must be taken to ensure that 5-gallon cans used for wastewater are not mistaken or confused with 5-gallon cans used for potable water; clear labeling is critically essential.

If wastewater collection cans or the DEPMEDS wastewater management set are not used, the sinks will drain to the immediate exterior of the hospital shelter, resulting in an unacceptable pooling of wastewater throughout the hospital area.

b. Medical Treatment Facility Sources. Sources of wastewater other than the sinks are limited and will generate relatively small volumes of waste liquids. In most cases, this wastewater can be collected and discharged into a nearby sink. An exception may be the water used for facility and major equipment sanitation; for example, wastewater from washing OR tables, OR floors, litters, ambulances, and other medical materiel.

c. Field Showers.

(1) While not an actual part of the hospital system, quartermaster field showers may collocate with or be near the hospital to support both patient and staff. These showers may also support personnel of other units within the area. The quartermaster personnel operating field showers are responsible for wastewater collection and disposal.

(2) If quartermaster support is not available, hospital personnel must provide their own showers (FMs 21-10 and 21-10-1). The hospital is responsible for the collection and disposal of this wastewater.

d. *Field Laundries*. The field laundry is one of the largest generators of wastewater. Field laundries may be collocated with or near hospitals to provide support and can present an inordinate wastewater disposal problem. Like the showers, quartermaster personnel operating laundries are responsible for wastewater collection and disposal. Because of the large volume of water required for laundry operations, the facility may have to be located away from a hospital and closer to a water source. In effect, this location would reduce or remove what may be a wastewater disposal problem from the immediate area of the hospital. (Preventive medicine personnel must ensure that laundry personnel are trained in and properly implementing procedures for handling contaminated linens.)

e. *Field Kitchen*. Army field kitchens are also significant sources of wastewater. In addition to the volume, the greases and particulate matter in wastewater from a field kitchen must be dealt with in a much more deliberate manner. For instance, grease traps must be constructed to remove food particles and grease from the kitchen wastewater before disposal. Information for the construction and operation of the filter and baffle grease traps is provided in FM 21-10 and FM 21-10-1. Also, hospital commanders may obtain technical assistance from the supporting PVNTMED element.

I-19. Disposal of Wastewater

a. In disposing of wastewater, a number of factors should be considered. These include—

- Volume and characteristics of the wastewater.
- Operational considerations (for example, duration of stay in a given location and the intensity of combat operations).
- Geological conditions (for example, type of terrain and soil characteristics, or depth of the water table).
- Climatic conditions.
- Availability of engineer support.
- Accessibility of established sewage collection, treatment, and disposal systems.
- Applicability of command environmental programs.

b. In light of the above factors, there are a number of wastewater disposal alternatives that a hospital commander may select. These include—

- Connecting to an established sanitary sewer system.
- Collecting and holding wastewater for engineer or HN agency removal to a fixed treatment facility.

- An engineer-constructed semipermanent wastewater collection and disposal system.

c. In many OCONUS noncombat operations, especially in the more developed countries, use of existing installation disposal facilities should be the method of choice. Even in some contingency operations, preplanned siting of hospitals can take advantage of preestablished connections to the existing sewer system. Coordinate with the local waste disposal facility prior to connecting to the sewer system or dumping waste into the system to ensure the facility can handle the extra waste and for compliance with environmental laws. Assistance from supporting engineers is required to establish the necessary connections and access to the sewer system. However, grease traps or filters may still have to be used in some areas, such as the dining facility's wastewater stream. Traps and filters will be required to remove grease and particulate matter that would adversely affect the operation of the wastewater pumps.

d. If use of a HN sewer is possible, but direct connection is not readily available, an alternate approach is to consolidate and collect wastewater in containers for eventual removal to a sewage treatment plant or a sanitary sewer access by supporting engineers or HN agency. As these storage containers are not part of the hospital's TOE and wastewater tank trucks and pumping equipment are not standard engineer equipment, this option requires extensive prior planning and coordination.

e. All AMEDD personnel are required to know how to construct and operate field expedient waste facilities. For the hospital, some engineer support in the form of excavation equipment is almost always required. This requirement will be due, in part, to the inordinate volumes of wastewater generated by the hospital and its associated facilities (kitchen, shower, and laundry). Engineer support must be coordinated and included in the site preparation planning.

f. Traditional field expedient methods of wastewater disposal consist of soakage pits, soakage trenches, and/or evaporation beds. The effectiveness of these methods depends on the geological conditions and the climate. While these disposal devices, especially soakage pits, are generally constructed for small volumes of wastewater, with proper design and operation they can be effective for larger volumes. Because these methods result in final disposal, it is necessary to remove grease, particulate matter, and other such organic material that could reduce the effectiveness of the process. Guidance on designs and construction of these devices is available in FMs 21-10 and 21-10-1 and from supporting engineer and PVNTMED personnel.

g. In arctic environments, or when geological or climatic conditions are to such extreme that soakage or evaporation is not possible, the only alternative may be to collect the wastewater in containers and coordinate removal with Army engineers, or use HN operators.

APPENDIX J

SAFETY

Section I. INTRODUCTION

J-1. 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).

J-2. Responsibility for Accident Prevention

a. Commander. The hospital commander must establish and promote safety and occupational health directives and policies to protect the personnel and equipment under his command. He must coordinate and integrate these directives and policies with those of higher headquarters and other commands and Services. The hospital commander appoints a qualified individual as the hospital safety officer (see AR 385-10).

b. Hospital Safety Officer. The hospital safety officer serves as a principal advisor to the commander. He manages the safety program by integrating safety into all functions conducted within the hospital. The safety officer can serve as an advisor to both the radiation control and infection control assets. He must continuously monitor the safety program for effectiveness and identify new methods for accident prevention.

c. Supervisors. Supervisors enforce command safety directives and policies through specific training programs, routine inspections of work areas, accident investigations, and prompt evaluation and action to eliminate or minimize potential hazards identified by personnel.

d. Individuals. All personnel should be made to realize that safety rules have been established for their protection. It is their responsibility to report all unsafe conditions/acts, accidents, and near misses to their immediate supervisor; to follow all instructions; and to properly use all personal protective equipment and safeguards.

J-3. 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 hospital commander. Group discussions, safety meetings, bulletin board notices, posters, and recognition of individuals for participation create interest in the safety program.

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

c. 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 occurrences.

d. 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 that might be dangerous should be reported so that remedial action can be instituted.

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.

g. Stress Control. Many accidents are the result of human error due to fatigue, sleep loss, dehydration, or other suboptimal physiological states. Other accidents are caused by carelessness or negligence caused by excessive or insufficient stress. Alcohol or other substance abuse and even suicidal ruminations can cause safety violations. Leadership supervision of sleep plans and other comprehensive stress control measures can be important adjuncts to the safety plan.

J-4. 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).

Supervisors must investigate all accidents and injuries and, when needed, seek the assistance of the safety officer to determine the cause(s) 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. A 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 (29 CFR 1910.144/145).

c. Fire Prevention.

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

(2) **NO SMOKING** signs should be posted wherever fire hazards exist, such as oxygen administration and flammable materials storage areas. 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. Electrical power cables should not be exposed to vehicular and/or foot traffic.

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. Only those personnel who have been properly trained and certified on the use of power generation equipment should handle or work with this equipment. 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 for patient treatment areas should be located to reduce, as much as possible, their noise in the operative area (MILVANs strategically placed in proximity to generators serve as excellent noise buffers).

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 arresters or flue guards on stove exhaust pipes and metal shields in stovepipe openings in tents should be used when heaters are in operation. Fireguards are required when stoves are in use to monitor stoves for correct operations and alert others of any potential fire hazards.

g. M-2 Burners. The M-2 burner unit is a heat source used in the nutrition care division. These units require safety precautions and trained operators who know what to do if the burners malfunction or a fire starts. The commander may require a licensed operator to operate the burners. The burner units have a U-shaped tank containing fuel under pressure. When burners are used, they should be closely monitored

because of potential fire and safety hazards. Burners must be used in well-ventilated areas because of the buildup of carbon monoxide gas produced.

h. Modern Burner Unit. The modern burner unit (MBU) is a variable firing rate, food service field burner that will be the primary heat source for all Army field food service equipment. It will replace the M-2 burner, which has been in the field for over 30 years and can only operate on gasoline. The MBU will operate on JP-8 to comply with the single battlefield fuel initiative. Heat output is from 20,000 to 60,000 British thermal unit/hr. To eliminate shock hazards, it will operate from 28-volt direct current power and requires approximately 50 watts (less than a standard light bulb). It can operate from a vehicle or a power converter that will draw power from a 110-volt alternating current generator. It will utilize a closed circuit, electric refueling system, electric ignition, and fuel atomization technology to eliminate all of the hazards and inconveniences associated with the M2 burner. Because of these innovations, the MBU can be refueled, ignited, operated, and stored in the kitchen, only being removed for maintenance. These units require safety precautions and trained operators who know what to do if the burners malfunction or a fire starts. The commander may require a licensed operator to operate the burners.

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

j. Weapons and Ammunition. Continual command emphasis should be directed toward training each individual in the hospital in the handling of weapons and ammunition. Training should begin when an individual joins the hospital. Commanders should ensure that all personnel are briefed on the handling of weapons that accompany patients to the treatment facility. Weapons of hospital 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.

J-5. 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 the 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.

Section II. DEPLOYED MEDICAL UNIT SAFETY CONSIDERATIONS

J-6. X-Ray Protective Measures and Standards

a. General. X-ray facilities established during deployments usually do not meet the quality control and construction standards normally imposed on medical and dental x-ray fixed facilities. Under

some conditions, use of x-ray systems during deployments may result in increased radiation exposures to patients, staff, and nearby personnel. Commanders must balance operational requirements with radiological safety concerns when establishing policies for using medical and dental x-ray systems during deployments.

b. Implementing a Quality Control and Radiation Protection Program

(1) The hospital commander should designate a medical radiation protection officer (MRPO), usually the senior x-ray technician, to develop and implement a Quality Control and Radiation Protection Program (QC/RPP). The QC/RPP should be designed to meet the requirements of AR 11-9 and Technical Bulletin Medical (TB Med) 521. The MRPO should review, and revise as necessary, the QC/RPP for each site where x-ray systems are used during a deployment.

(2) The MRPO should coordinate for medical maintenance calibration and health physics radiation safety surveys of medical and dental x-ray systems (in accordance with TB Med 521) prior to using the systems on patients. During extended deployments, the x-ray systems should be re-calibrated and surveyed immediately before deployment and then annually.

(3) The MRPO can request individual radiation dosimeters, if required, from the US Army Ionizing Radiation Dosimetry Center (AIRDC), ATTN: AMSMI-TMDE-SR-D, Redstone Arsenal, AL 35898-5400, DSN 746-7634/7674 or commercial (205) 876-7634/7674. The requirements for using, handling, processing, and storing individual dosimeters are specified in the AIRDC Dosimetry Customer's Handbook.

(4) Patients, staff, and personnel in adjacent areas should be afforded the same level of radiation protection established by AR 11-9 and TB Med 521. Operational conditions may prevent including all requirements of AR 11-9 and TB Med 521 in the QC/RPP. The hospital commander must consider the current status of the QC/RPP, and the current operational circumstances, when establishing policies for using x-ray systems during deployments.

c. Maximizing Diagnostic Image Quality. Obtaining diagnostically useful x-ray images under field conditions can be very difficult. Image quality can be improved by ensuring the proficiency of x-ray technicians and verifying the functionally of supporting equipment.

(1) X-ray technicians can maintain their proficiency by spending at least two weeks per year performing x-ray procedures in an active medical treatment facility. If x-ray technicians cannot be rotated through medical facilities prior to deployment, consideration should be given to rotating technicians from relatively inactive to more active x-ray facilities during the deployment.

(2) Film cassettes should be periodically checked to ensure they are functional and sensitive. Cassettes should be compared with the cassettes used at an active medical facility prior to deployment. Alternatively, cassettes can be compared against each other after deployment. Cassettes can be checked using the following procedure:

(*a*) Load each cassette with film.

(*b*) Place a container with between 7 and 10 inches of water (a sharps container or bucket) on the x-ray table, or on top of the cassette. Expose each cassette through the water while either using a phototimer to terminate the exposures or an x-ray technique that produces a gray (not black) image.

(*c*) Develop the films and determine the average film density in the exposed areas. If a phototimer was used, and if a densitometer to measure the darkening is available, replace all cassettes with an average density less than 80% of the average density of the best (darkest) cassette tested. Alternatively, remove from use any cassette with images noticeably lighter than the best (darkest) cassette.

(3) Poor quality or unstable electrical power may cause significant variations in an x-ray system's output. Poor quality electrical power can diminish image quality and increase the number of x-ray retakes. X-ray systems should be located as close to the electrical generators as practical, and may need to be on dedicated circuits to maintain the system's accuracy and reproducibility.

(4) An inanimate object should be imaged daily to verify general functionality of the x-ray system, film-cassette combination, and film processor and/or procedures. The ideal object for daily imaging would be one that produced image areas ranging from very dark to very light.

d. Protecting Patients. Diagnostic x-rays produced under field conditions may be of diminished quality, particularly when normal quality control requirements cannot be met. Hospital commanders must consider the radiological risks and treatment benefits when establishing policies for using x-ray systems during deployments.

(1) All standard procedures for protecting x-ray patients (gonadal shielding, proper techniques, collimation, and so forth) should be employed.

(2) Portable x-ray systems should not be used for assessing chronic conditions, performing medical screening, or as part of routine physical exams. Portable x-ray systems produce lower quality x-ray images when used for large sections of the body, such as the abdomen, then general purpose x-ray systems. Patients requiring routine high-quality diagnostic imaging should be referred to a hospital with a general purpose x-ray system supported by an adequate quality control program.

e. Protecting X-ray Technicians. The maximum permissible whole-body exposure for x-ray technicians is 5,000 milli-roentgen equivalent man (mammal) (mrem) per year, or approximately 100 mrem per week. Personnel likely to receive over 10 percent of the maximum permissible exposure must be issued a personnel dosimeter. Therefore, either the design of x-ray facilities should ensure technicians will not receive over 10 mrem per week, or technicians should be issued a personnel dosimeter. For busy facilities, technicians should use the personal dosimeter.

(1) Technicians and physicians performing fluoroscopic studies often stand very close to the patient. Facility design alone generally cannot to ensure technicians and physicians will receive less than 10 mrem per week during fluoroscopic studies. Technicians and physicians performing fluoroscopic procedures should be issued a personnel dosimeter.

(2) The design of general purpose x-ray facilities normally ensures x-ray technicians will receive less than 10 mrem per week. A personnel dosimeter is generally not required for these technicians, provided the following conditions can be met:

(*a*) The primary x-ray beam is not aimed at the technician's position.

(*b*) The technician is provided adequate shielding from scattered radiation. Shields designed specifically to shield x-ray technicians, typically with lead-glass viewing windows, are ideal. Field expedient shields constructed with sandbags should be sufficient.

(3) When fixed shielding for x-ray technicians is not possible, the technician's distance from the patient should be maximized. In these situations, technicians should both wear lead shields and be issued a personnel dosimeter.

f. Protecting Personnel in Adjacent Areas. Facilities should be designed to maintain exposures to persons in adjacent areas below 2 mrem per week.

(1) The primary beam from the x-ray system must be shielded from adjacent areas, unless the beam is directed at the ground. When the x-ray beam cannot be directed at the ground, it should be directed at an outside wall. Example of field expedient shields for the primary beam includes a lead protective apron hung behind the chest Bucky or a sandbag wall.

(2) An exclusion area of 50 feet for all directions around the x-ray system, or a formal evaluation of the facility design, can ensure personnel in adjacent areas will receive less than 2 mrem per week. Exclusion areas should remain unoccupied whenever the x-ray system is used. The USACHPPM Medical Health Physics Program Manager at DSN 584-3502 can assist in performing formal shielding evaluation.

(3) When neither a 50-foot exclusion area nor a formal review of the facility design is practical, field expedient techniques must be used to protect personnel in adjacent areas. These techniques include sandbagging walls for shielding, avoiding pointing the x-ray at occupied areas, and maximizing the distance to occupied areas. The IM-93 pocket dosimeter can be used to evaluate the adequacy of field expedient shielding. In general, a single wall of sandbags parallel to the interior wall, 5 feet high along the interior of the x-ray room, will ensure adequate shielding in almost all situations.

g. Documenting Radiation Exposures.

(1) The AIRDC maintains individual dosimetry records of radiation exposures recorded with personnel dosimeters. These records can be supplemented with administrative dose assignments.

(2) Post-deployment evaluations of radiation exposures may be desirable if exposures in adjacent areas may have exceeded 2 mrem in a week, if exposures to x-ray technicians not wearing personnel dosimeters may have exceeded 10 mrem in a week, or if field expedient shielding methods were used. The USACHPPM Medical Health Physics Program Manager at DSN 584-3502 can assist in calculating possible radiation exposures. The accuracy of these evaluations would depend primarily on the adequacy of records made during the deployment. Records should include a description of the facility (including a diagram), distances between the x-ray machine and potentially exposed individuals, the identity and SSNs of potentially exposed individuals, a description of any shielding present, the types of activities conducted in adjacent areas, the radiographic technique involved (including milliamperes, time, and kilovolt peak), and the dates and number of x-rays taken.

J-7. Hearing Conservation

a. Department of the Army Pamphlet 40-501 provides the guidance on unit hearing conservation programs.

b. Units should contact the PVNTMED activity of the area medical support activity for identification of noise hazardous equipment, job sites, and exposed personnel. This is to be accomplished by conducting sound level surveys on field equipment (that is, compressors, generators, medical and dental handpieces, field laboratory equipment, and military vehicles). These data are used to identify individuals who will require a fitting for a hearing protective device, medical surveillance, and health education.

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

d. Hearing protectors are issued to all unit personnel. Their use will be required when operating or in proximity to noise hazardous equipment such as (but not limited to) generators, compressors, field laboratory equipment, and tactical vehicles, 2 1/2 tons and larger. Areas around this equipment should be identified by placing **NOISE HAZARDOUS AREA, HEARING PROTECTION REQUIRED** signs as directed in the hospital's TSOP.

e. Noise hazardous equipment, such as generators and compressors, should be sandbagged as directed by the hospital's TSOP to reduce the noise hazard and noise signature.

J-8. Compressed Gas Cylinders

All 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 near a cylinder. Valve protection caps must be installed on each cylinder. Oxygen should be stored in areas separated from other gases by at least 50 feet. Oxygen should be separated from acetylene by at least 100 feet. Gases used in laboratory procedures require caution in handling. All compressed gas cylinders should be labeled and tagged with the contents of the container to avoid confusion of what material is in each cylinder.

J-9. Flammable, Explosive, or Corrosive Materials

These materials must be kept in approved safety containers and away from any potential source of ignition. Acids used in laboratory procedures should be stored in noncorrosive containers and cabinets designed to hold caustic/corrosive material. Incompatible materials must be stored separately. In general, reactives must be segregated from ignitables; acids must be segregated from caustics; corrosives must be segregated from flammables; and oxidizers should be separated from everything. Most organic reactives must be segregated from inorganic reactive (metals).

J-10. Special Equipment

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

J-11. Department of Defense Federal Hazard Communication Training Program

Department of Defense Instruction 6050.5 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 Code of Federal Regulations, 1910.1200). The OSHA issued this standard to ensure everyone's right to work in a safe environment. It requires that everyone understand the hazards of the materials they work with and know how to minimize these hazards. It requires supervisors to develop and maintain current listings of all hazardous materials used at a work site and the specific hazards of each material. Material Safety Data Sheets must be maintained at each work location, and personnel should be trained in the hazards of their occupation.

J-12. United States Army Center for Health Promotion and Preventive Medicine

There are PVNTMED assets located within each division and at corps level. These units have subject matter experts in most areas of environmental health, sanitation, industrial hygiene, and occupational health. The mission of PVNTMED is to provide guidance to unit commanders on compliance with DA and federal requirements in these areas. Additionally, the USACHPPM has the mission of looking out for the soldiers' welfare worldwide. The USACHPPM is an excellent source for advice and assistance in areas related to environmental quality or occupational health. Any Army official safety representative (for example, unit safety officer) can request assistance from this organization. Potential areas for assistance include, but are not limited to—

- Technical assistance on monitoring the use of ionizing radiation, telephone: DSN 584-3548/3502.
- Hospital hazardous waste management on-site visits, CONUS/OCONUS, DSN 584-3651.
- Hospital safety program on-site visits, CONUS/OCONUS, DSN 584-3040.

The USACHPPM also provides document review services that may be of assistance in evaluating a unit safety, PVNTMED, and field sanitation programs. Requests for on-site visits should be coordinated in advanced with higher headquarters, particularly for OCONUS locations.

J-13. Infection Control

Special precautions must be taken during patient treatment procedures to avoid the transmission of infections. Infection control, to include medical waste disposal, is covered in Appendix I.

APPENDIX K

COMMANDERS' CHECKLIST

Section I. PERSONNEL CHECKLIST—MOBILIZATION

K-1. Personnel and Administration

a. Maintain individual records alphabetically by last name. If records are maintained by an activity separate from the hospital, provide that activity an updated personnel roster as of the 15th of each month to arrive not later than the 20th. Reserve Component hospitals use the most current DA Form 1379.

b. Identify nondeployable personnel and initiate procedures for reassignment and/or separation.

c. Identify and color code all reference publications to be taken with the hospital upon deployment.

d. Maintain personnel readiness folders and review them quarterly.

e. Ensure that hospital members' (to include professional officer filler system [PROFIS]) identification tags and Geneva Conventions cards are on hand and are in serviceable condition.

f. Identify files to accompany the hospital in case of deployment, as well as those to be destroyed.

g. Maintain a 60-day supply of blank forms for deployment.

h. Maintain a deployment set of DA Form 3955 on all assigned personnel in alphabetical order.

i. Appoint a (unit) family member's assistance officer.

j. Conduct personal affairs briefing according to AR 220-10.

k. Identify personnel shortages by grade and MOS.

l. Submit requisition for personnel shortages.

m. Ensure that assigned personnel have enrolled their dependents in defense eligibility enrollment system (DEERS).

n. Ensure that dependent care plans are on file and adequate for soldiers and PROFIS personnel who are sole parents, or are married to another soldier and have children.

o. Appoint a unit mail clerk.

p. Requisition and maintain recreational equipment and supplies.

q. Appoint a unit safety officer and an NCO.

r. Maintain in a current status the personnel data cards (PDCs) for all personnel assigned, to include designated PROFIS personnel.

s. Appoint a unit records management coordinator to pick up and transport the hospital's individual records (personnel, medical, dental, and finance) in case of a deployment.

t. Ensure assigned personnel maintain current MOS evaluation scores; if personnel have failed to verify their MOS, conduct training in deficient tasks.

u. Establish procedures to recall personnel absent from the unit in the event of increased readiness conditions.

v. Obtain sufficient boxes to carry unit files and personnel, dental, and medical records.

w. Maintain records (PDC files) on PROFIS personnel.

x. Appoint rear detachment commander.

y. Check to ensure military drivers' licenses are current and schedule driver training/testing to ensure sufficient numbers of drivers are available for movement of unit's assigned vehicles.

z. Assure all personnel, especially those newly assigned from far away, link their "significant others" (not limited to "entitled beneficiaries") with the unit family support group.

K-2. Finance

a. Maintain a current roster of all assigned and PROFIS personnel.

b. Ensure that orders for purchasing officer and Class A agent are current and that each individual is thoroughly briefed on his duties.

c. Upon mobilization, ensure that the Class A agent contacts the mobilization station finance and accounting office (FAO) and identifies any immediate finance requirements.

d. Establish contact with FAO upon arrival at the mobilization station to enhance personnel processing.

e. Arrange for emergency financial assistance, as required.

f. Advise personnel to adjust or initiate allotments for dependents, as appropriate.

g. Upon mobilization and deployment notification, advise personnel of the amount of cash and/or credit cards they should bring.

K-3. Medical

a. Ensure that the home station medical and dental treatment facilities (supporting mobilization/ deployment operations) record the deploying soldier's essential health and dental care information on DA Form 8007-R, Individual Medical History. The health record (DA Form 3444 or DA Form 8005-series [Medical and Dental Treatment Record]) folders of deploying soldiers will not accompany them to combat areas. For additional information, see AR 40-66.

(1) The preparation and use of DA Form 8007-R is applicable to deploying military personnel as well as civilian employees who may accompany the unit.

(2) If the health record is not available, DA Form 8007-R will be completed based on soldier interviews and any other locally available data. A health record may not be available for Individual Ready Reserves, Individual Mobilization Augmentees, and retired personnel because their health records may be on file at the US Army Reserve Personnel Center.

(3) The CSH will maintain the DA Form 8007-R in an outpatient field file for reference as needed. The field file will consist of, in part, DA Form 8007-R, and possibly, SF 600 (Health Record—Chronological Record of Medical Care), SF 558 (Medical Record—Emergency Care Treatment), SF 603 (Health Record—Dental), or DD Form 1380 (US Field Medical Card).

b. Ensure that immunizations for unit personnel are current.

c. Verify temporary physical profiles every 3 months.

d. Maintain a record copy of all permanent physical profiles.

e. Ensure all personnel requiring spectacles have at least two pairs, as well as optical inserts for their protective mask.

f. Ensure that each individual has a duplicate panographic dental x-ray on file and that a deoxyribonucleic acid (DNA) specimen is on file with the DOD DNA Registry and Repository.

g. Requisition and maintain medical supplies based upon modification TOE, mission(s), and contingency plans. Medical supplies which have a shelf life of less than 60 months are centrally managed and funded by the USAMMA. At the deployment station, units receiving alert deployment certification will receive potency and dated supplies in unit deployment package configuration from USAMMA. The installation medical supply activity (IMSA) will issue unit deployment packages (UDP) and procure any UDP shortages locally. Unit deployment packages are intended to go as to accompany troops (TAT).

h. Ensure that each individual has an ample supply of all personal medications and other personal supplies and that the medications are safe and can be resupplied under deployment conditions.

i. Ensure that the correct blood type is posted to individual records.

j. Ensure all soldiers have their annual hearing exam and have medically fitted hearing protection.

k. Request information on the medical threat and countermeasures in the AO.

l. Ensure all field sanitation team supplies are on hand and all field sanitation equipment is mission capable.

m. Ensure all personnel have a current human immunodeficiency virus test according to requirements of AR 611-110.

K-4. Discipline, Law, and Order

a. Prepare plans for security of unit equipment, weapons, and ammunition.

b. Designate a unit physical security officer.

c. Brief unit personnel on policy that prohibits bringing privately owned firearms to the mobilization station.

d. Conduct a shakedown inspection for contraband prior to movement to mobilization station.

e. Implement plans for storage and/or care of privately owned vehicles (POVs), firearms, pets, and other personal property.

K-5. Religion

a. Ensure that religious services are available.

b. Provide necessary training for chapel activity specialists.

c. Obtain appropriate religious equipment and supplies.

K-6. Legal

a. Seek assistance from the Staff Judge Advocate in preparing unit for deployment.

b. Contact the Office of the Staff Judge Advocate to ensure all personnel are able to consult an attorney concerning powers of attorney, wills, and other personal legal matters. Coordinate with the Office of the Staff Judge Advocate for legal support to soldier readiness processing operations.

c. Consult the servicing Trial Counsel at the Office of the Staff Judge Advocate concerning pending disciplinary actions. Appropriate arrangements must be made to dispose of disciplinary action, and to ensure the availability of testimony for investigations and hearings from persons who will deploy.

d. Contact the Office of the Staff Judge Advocate to request training and legal briefings before deployment on such areas as applicable rules of engagement, law of war (appropriate portions of the Hague Regulations and Geneva Conventions), Status of Forces Agreements, and any unique laws in the countries of deployment which may impact operations (any entry and exit requirements, status of deployed personnel, local traffic and criminal laws, and so forth).

K-7. Public Affairs

a. Make provisions to recall unit personnel through the use of electronic media outlets; that is, radio and television stations.

b. Brief personnel on the nature and background of the emergency which has required the mobilization.

c. Brief unit personnel on the history, geography, religion, language, and customs of the country or area of eventual military operations.

d. Make sure assigned personnel are aware of required actions to take if contacted by members of the news media.

e. Inform personnel of actions to take and agencies available to support their family members after mobilization; for example, legal assistance, health care, financial arrangements, and so forth.

f. Assure all personnel, especially those newly assigned from far away, link their "significant others" (not limited to "entitled beneficiaries") with the unit family support group.

g. Advise personnel not to discuss sensitive information outside of the unit; for example, movement dates, times, departure points, troop lists, means of transportation, special training, special equipment, status of morale, and so forth.

Section II. OPERATIONS CHECKLIST—MOBILIZATION

K-8. Operations

a. Maintain current alert notification rosters (both telephonic and nontelephonic); update monthly and conduct exercises periodically.

b. Brief key personnel on contingency plans and exercise requirements.

c. Report attainment of deployability posture according to FORSCOM alert and deployment procedures and plans and policies of the mobilization site.

d. Monitor unit processing for overseas movement (POM) operations and request guidance and assistance as required.

e. Provide current access roster to the EOC and update as needed.

f. Prepare hospital movement plans.

g. Establish liaison and communications with the EOC.

h. Obtain mission briefing and plans required for execution of deployment mission.

K-9. Security and Intelligence

a. The S2 officer accomplishes all duties related to security and intelligence matters. (See the Assistant Chief of Staff, G2 [Intelligence]/S2 responsibilities in FM 101-5.) The commander is briefed as required.

b. Review the personnel security status of the unit and request, in order of priority, interim security clearances to ensure the correct personnel have proper clearance consistent with mission requirements, to include classified material escort responsibilities.

c. Ensure appropriate hospital personnel are familiar with duties and responsibilities in conjunction with movement and shipment of classified material, protection of movement data, and execution of classified moves, as applicable.

d. Prepare to enforce primary Wartime Information Security Program.

(1) Appoint primary censors (one for every 100 personnel).

(2) Prepare requisition for censorship stamp.

(3) Initiate censorship education program.

e. Conduct operations security (OPSEC) training according to AR 530-1 and local supplements.

f. Prepare briefing for hospital personnel to be conducted when movement is imminent. Include the following:

(1) Subversion and Espionage Directed Against US Army according to AR 381-12.

(2) Procedures for classified moves.

g. Ensure access rosters are current; prepare and submit access rosters to the appropriate mobilization site staff and higher headquarters, if appropriate.

h. Expedite processing of pending security clearance actions.

i. Ensure all personnel, including fillers, are briefed on OPSEC practices.

j. Brief command and staff personnel on the nature of the threat of electronic warfare (EW) and signal intelligence.

k. Ensure personnel are aware of intelligence acquisition tasks, responsibilities, techniques, and reporting procedures.

l. If sealed-off staging areas are used—

(1) Conduct mission briefings at the latest possible time prior to out-loading. Classified mission briefings will be as determined by the commander.

(2) Restrict briefed personnel to sealed-off area.

(3) Establish and enforce controlled pass procedures.

(4) Monitor and control telephone use.

m. Identify the classified documents that will not accompany the hospital.

n. Review plans for the conduct of a counterintelligence (CI) inspection of the hospital area upon departure.

o. Ensure timely transfer or destruction of classified material not to accompany the hospital.

p. Request assistance for security briefings.

q. Ensure all plans contain OPSEC and communications-electronics (CE) security planning considerations.

r. Maintain a list of map requirements and prestock. Submit requirements to the appropriate staff section at the mobilization site.

s. Ensure SIGSEC plans include—

(1) Nature and amount of information to be transmitted or protected.

(2) Communications system capabilities and limitations.

(3) Selection of available SIGSEC kits and instructions for use.

(4) Basic load, source, and manner of resupply for key cards, authentication codes, and other security-related codes.

(5) Operating procedures to include C2 warfare techniques and any special requirements.

(6) Emergency destruction of classified operating instructions and associated materials.

t. Identify all intelligence requirements and submit to the appropriate security staff at the mobilization site.

u. Identify all linguist-qualified personnel and potential translator needs based upon mission(s) and contingency plans.

v. Review plans for the conduct of a classified move according to AR 380-5 and AR 220-10.

w. If deployment is from a civilian port, make a request for port security to higher headquarters.

x. Coordinate with the appropriate staff for any unique unit requirements.

K-10. Training

a. Train field sanitation teams (FM 21-10-1).

b. Conduct training in air and rail movement.

c. Conduct MOS training as required.

d. Conduct PVNTMED refresher training (FM 21-10). Training should include—

- The transmission and countermeasure information for endemic and epidemic diseases prevalent in the AO.
- Heat and cold weather injury prevention.
- Poisonous plant, wild animals, and reptiles (land and water).
- Pest management.

e. Conduct stress management skills training and stress inoculation to specific, anticipated stressors.

f. Conduct weapons qualification and NBC training.

g. Conduct training for potential civic action programs that include medical operations (FM 8-42).

h. Conduct defense team training.

Section III. LOGISTICS CHECKLIST—MOBILIZATION

K-11. Subsistence

a. Complete basic load of Class I (DA Form 3161) and forward to troop issue subsistence officer.

b. Complete ration requirements for air deployment: 3 days subsistence for Army pre-position of stocked hospitals and 5 days for non-Army pre-positioned stocked hospitals.

c. Identify rations required for personnel to accompany sea-deploying equipment.

d. For hospitals operating their own dining facility—

(1) Coordinate with the appropriate staff section to close accounts and turn in or transfer dining facility supplies and equipment.

(2) Coordinate for subsistence support of hospital personnel during the period between the closure of the hospital's dining facility and hospital deployment.

e. For a CSH currently subsisting in another organization's dining facility—

(1) Coordinate with the supporting dining facility manager to withdraw hospital food service personnel during deployment preparations.

(2) Prepare plans to collect and turn in meal cards to the supporting facility prior to unit deployment.

(3) Prepare a roster of all deployable and nondeployable personnel receiving basic allowance for subsistence; for example, separate rations. For deployable personnel, establish a termination date for the basic allowance for subsistence and coordinate with the supporting dining facility and the finance officer.

f. Ensure ration requirements for patient feeding in the AO have been planned for and are available. Planning for a basic load of unique patient-feeding items may be needed until the TO can support these items.

K-12. Supplies and Equipment

a. Ensure assigned personnel have all required individual clothing and supplies, to include permethrin, DEET (75 percent N, N-diethyl-M-tolumide), and personal hygiene items. Cover shortages by requisition, cash collection voucher, or scheduled individual purchase.

b. Ensure personnel have all required organizational clothing and equipment and that items are marked, as required. Cover shortages by requisition, cash collection vouchers, or individual purchases.

c. Expendable supplies.

(1) Prepare a list of expendable supplies required for 15-day usage.

(2) Ensure all expendable supplies required are on hand, requisitioned, or readily available through the self-service supply center (SSSC).

(3) Ensure hospital draft loading plan makes provisions for carrying the 15-day supply of expendables as TAT baggage.

d. Medical sets, kits, and outfits and tools.

(1) Have all sets, kits, and outfits on hand or on order, follow up with status card or upgrade the priority.

(2) Prepare shortage annexes for all sets, kits, and outfits on hand.

(3) Document all shortages by shortage annex, report of survey, statement of charges, or cash collection voucher.

(4) Place all shortages on requisition.

(5) Ensure all supply catalogs are on hand and current.

e. Identify all station property and coordinate to ensure turn in during deployment preparation.

f. Ensure supply personnel are familiar with procedures to close out SSSC and other accounts.

K-13. Petroleum, Oils, and Lubricants

a. Determine requirements for packaged products for deployment. Ensure necessary items are on hand, requisitioned, or readily available through the SSSC.

b. Bulk POL.

(1) Have required 5-gallon fuel cans on hand or on requisition.

(2) Have bulk POL containers serviceable, or initiate appropriate repair or replacement action.

(3) Coordinate with the appropriate staff element for the purging of bulk containers prior to deployment. Have replacement filters on hand or on requisition for this equipment.

K-14. Ammunition

a. Compute unit basic load and have computations verified by the appropriate staff element at the mobilization site/home station.

b. Prepare and submit DA Form 581 for basic load.

c. If appropriate, include that portion of the basic load in hospital TAT load plans.

d. Identify requirements for guard ammunition for equipment and classified material escorts.

K-15. Major End Items

a. Ensure all TOE/modification TOE-required items are on hand or on requisition.

b. Have all excesses identified and turned in prior to deployment.

c. Have all requisitions for shortages screened for status, proper unit movement data, and priority.

d. Identify impact of shortages to the appropriate headquarters and in unit readiness report.

e. Ensure that major training sets such as the DEPMEDS minimal essential equipment for training sets are either turned in or prepared for shipment to the mobilization site or POE.

K-16. Medical Supplies and Equipment

a. Coordinate with installation Department of Defense Activity Address Code (DODAAC) coordinator for contingency DODAACs, split-based operations and deployments, change of addresses, and unique tasked force structure requirements (AR 710-2).

b. Have all required medical supplies and equipment items on hand or requisitioned through the supporting Class VIII organization. Both the UDP provided by USAMMA and any locally procured by the IMSA must accompany the unit as TAT.

c. Have requisitions for shortages validated and obtain latest status.

d. Address the effect of shortages to the appropriate headquarters and in the unit readiness report.

e. Ensure that enough refrigerated and heated storage is available for the temperature-controlled items for shipment.

f. Ensure that medical supplies (such as cylinders containing oxygen and anesthesia gases, Code R items, and other hazardous materials) requiring special handling are identified and on hand or on requisition.

g. Ensure that required support kits are on hand.

K-17. Prescribed Load List

a. Review hospital's prescribed load list (PLL) on all equipment.

b. Provide PLL to the appropriate supporting staff.

c. Have all PLL items on hand or on requisition.

d. Include PLL in hospital loading plans.

e. Include blocking, bracing, packing, crating, and tie-down (BBPCT) necessary to protect PLL in the hospital's BBPCT forecast.

f. Adjust PLL to reflect continuous equipment operations.

g. Provide list of PLL shortages having or anticipated to have an impact on unit readiness to the appropriate staff element or higher headquarters.

K-18. Maintenance

a. Initiate equipment records for all newly received items in accordance with DA Pamphlet 738-750.

b. Identify all excess equipment and coordinate with the support activity for turn in.

c. Have all items requiring direct support- or general support-level maintenance, to include equipment to be purged, job-ordered to the appropriate support activity.

d. Ensure calibration of equipment is completed, or scheduled for completion.

e. Upgrade job order priorities to reflect anticipated deployment dates.

f. Notify the EOC or higher headquarters of any conflict or shortfalls between the estimated completion date of equipment repairs and the required-to-load date for deployment.

g. Request maintenance assistance in conducting final inspection of major equipment prior to movement and loading.

K-19. Laundry

a. Review procedures necessary to close out laundry account; prepare and submit paperwork, as necessary.

b. Notify laundry manager of anticipated deployment date.

K-20. Transportation

a. Keep the hospital's automated unit equipment list and computerized movement and status system reports current. Coordinate with local movement control teams for additional transportation assets. Medical supply shortages and any surgeon-directed Class VIII must be planned for movement with the unit as TAT.

b. Train hospital personnel in the following areas:

(1) How to load unit equipment on aircraft, trucks, and railcars for deployment, including hazardous materials certification.

(2) Preparation of packing lists.

(3) Marking of containers.

(4) Preparation of transportation control and movement document (TCMD) (DD Form 1384).

(5) Preparation of personnel manifests as required by the Air Mobility Command (AMC).

(6) Blocking, bracing, packing, crating, and tie-down.

(*a*) Computation of hospital BBPCT requirements for both air and sea deployment. Have requirements validated by the transportation support activity and place a job order for BBPCT.

(*b*) Computation of supplemental packing and crating requirements and, if required, submit appropriate request to the USAF for those requirements that cannot be met. This request should be for fabrication of supplemental packing and crating for—

1. Air deployment.

2. Rail deployment.

3. Surface (sea) deployment.

(*c*) Maintaining supplemental packing and crating items.

(7) Determining center of gravity and marking vehicle and cargo loads.

(8) Loading vehicles for both air and/or sea deployment, as appropriate.

(9) Preparation of movement documents for items requiring special handling and packing and hazardous materials certification.

c. Review with the Installation Transportation Officer, Port Support Activity, or Arrival/Departure Airfield Control Group, the support requirements for the following areas:

(1) Preparing, packing, and marking loads.

(2) Augmenting vehicle requirements to support movement to POE and other transportation requirements.

(3) Providing MHE support to assist in loading.

(4) Load team and driver team requirements.

(5) Application of LOGMARS labels.

(6) Operation of marshaling area at POE.

d. Prepare hospital movement plans to include—

(1) Convoy or move to POE.

(2) Logistical support of hospital elements at POE.

(3) Guard personnel and equipment at POE.

(4) Handling of hazardous and special cargo and preparation of necessary certificates.

(5) Preparation of equipment and items which use or store combustibles; that is, generators, water heaters, and so forth for shipment.

K-21. Miscellaneous Logistics

a. Develop guidance and plans for the establishment of a rear detachment, to include transfer of property and signature cards (DA Form 1687).

b. Establish procedures to terminate all signature cards and authorizations on departure of the last hospital element.

c. Personal property.

(1) Ensure proper disposition of civilian clothing and personal property.

(2) Have on hand or on order sufficient C-boxes and inventory forms for packing and storing of personal items which cannot be disposed of by the individual.

(3) Train supply personnel in inventorying, packing, marking, and transferring personal property.

d. Billeting.

(1) Advise personnel who reside in bachelor officers' quarters (BOQ), bachelor enlisted quarters (BEQ), or off-post housing of necessary termination and clearance procedures on notification of deployment.

(2) Prepare a listing of personnel who will have their basic allowance for quarters (BAQ) terminated upon deployment.

e. Provide personnel with a list of personal comfort items that should be obtained and a list of prohibited items based upon projected deployment locations, local customs and religion, and PVNTMED guidance.

f. Establish a list of personal support items to be obtained based upon projected deployment locations, such as lip balm, bug repellant, sun screen, and mosquito netting.

g. Real property facilities.

(1) Maintain a current roster of real property facilities (RPF) managers for all RPF assigned to the hospital.

(2) Identify interim RPF managers who will not deploy and will assume accountability for assigned RPF.

K-22. Contracting

Notify the contracting activity of the anticipated termination date of any supply or service support provided by civilian contractors.

Section IV. PERSONNEL CHECKLIST—DEPLOYMENT

K-23. Personnel and Administration

a. Upon notification of deployment, recall all personnel, including those on leave, special duty, and temporary duty (except MOS-producing schools).

b. Coordinate with higher headquarters for PROFIS personnel. The PROFIS is met primarily through the designation of officers and enlisted personnel within the MEDCOM to meet AMEDD professional filler requirements (see AR 601-142).

c. Submit personnel status report.

d. Conduct final processing for overseas replacement (POR) qualification. Identify nondeployable personnel and initiate procedures for reassignment and/or separation.

e. Have unit records management coordinator assist the officer in charge at the POR processing site.

f. Clear nondeployable personnel from the hospital after final POR. Return their records and update the personnel roster.

g. Following final POR, receipt for medical and dental records. Pack them in boxes to accompany the hospital. Personnel records will remain at the installation for 90 days pending determination of where to ship them. Dental records (necessary for identification of remains) will not be transported on the same vessel or airplane as soldiers.

h. Ensure that a set of DA Form 3955 accompanies the hospital for filing at the postal activity in the AO.

i. If not initiated, submit DA Form 17 for publications and blank forms.

j. Pack files, publications, and blank forms that will accompany the hospital. Retire or destroy remaining files. Turn in excess publications and blank forms.

k. Carry copies of the movement orders with the hospital.

l. Carry a copy of the current enlisted promotion list with the hospital.

m. Ensure that personnel are cleared of post activities; follow up on discrepancies.

n. Conduct safety orientation for all unit personnel regarding the deployment operation.

o. Orient personnel on the Status of Forces Agreement in the AO.

p. Conduct personal affairs briefing in accordance with AR 220-10.

q. Close unit Morale Support Fund account and dispose of fund property.

r. Arrange for emergency financial assistance of hospital personnel, as needed, with Army Emergency Relief and Red Cross, or other appropriate agencies.

s. Inform the installation postal officer, in writing, of the day and time of the last postal pick up; provide the postal officer a copy of the movement orders.

t. Initiate action to terminate separate rations as of the day the hospital departs the installation.

u. Turn in recreational services clothing and equipment except for items accompanying the hospital.

K-24. Medical

a. Ensure convoy and serial commanders know the sources and methods of obtaining emergency medical support while en route and at the POEs.

b. Identify medical personnel to provide EMT during convoy and stationary operations. Ensure that enough air bags, litters, and other equipment are set aside for their support.

c. Identify evacuation and medical treatment support (usually on an area basis) for each stage of deployment and movement.

K-25. Discipline, Law, and Order

a. Have soldiers' POVs placed in temporary storage or ensure that other suitable arrangements have been made for disposal or upkeep. For POVs temporarily stored on the installation, have soldier provide power of attorney authorization to a responsible individual to pick up the vehicle, or have the soldier arrange for long-term commercial storage at his own expense.

b. Report assigned personnel who are absent without leave.

c. Prepare for disposition of privately owned weapons stored in the unit arms room.

d. Implement plans for storage and/or care of POVs, firearms, pets, and other personal property.

K-26. Religion

Ensure that religious services are available to all personnel.

K-27. Legal

a. Contact the Office of the Staff Judge Advocate to ensure all personnel are able to consult an attorney concerning powers of attorney, wills, and other personal legal matters. Coordinate with the Office of the Staff Judge Advocate for legal support to soldier readiness processing operations.

b. Consult the servicing Trial Counsel at the Office of the Staff Judge Advocate concerning pending investigations and disciplinary actions. Appropriate arrangements must be made to dispose of disciplinary actions and to ensure the availability of testimony for investigations and hearings from persons who will deploy.

c. Contact the Office of the Staff Judge Advocate to request training and legal briefings before deployment on such areas as applicable rules of engagement, Standards of Conduct, Code of Conduct, law

of war (appropriate portions of the Hague Regulations and Geneva Conventions), Status of Forces Agreements, and any unique laws in the countries of deployment which may impact operations (any entry and exit requirements, status of deployed personnel, local traffic and criminal laws, and so forth).

K-28. Public Affairs

a. Keep hospital personnel appraised of the current overall emergency situation requiring the mobilization and deployment.

b. Apprise personnel of any operational changes to the hospital's mission.

c. Brief personnel on their eventual AO.

d. Use the hometown news release program, if warranted.

e. Continue coordination with installation.

f. Continue command information program throughout the period of mobilization and deployment.

Section V. OPERATIONS CHECKLIST—DEPLOYMENT

K-29. Operations

a. Conduct overseas orientation in accordance with AR 220-10.

b. Report attainment of deployability posture in accordance with FORSCOM emergency action procedures and installation EOC policies and procedures.

c. Monitor hospital POM operations, and provide guidance and assistance, as required.

d. Prepare appropriate plans and orders.

e. Coordinate hospital movement.

f. With the approval of the hospital commander, appoint an officer or NCO as rear detachment commander.

K-30. Security and Intelligence

a. Review the personnel security status to ensure sufficient numbers of personnel are properly cleared consistent with mission requirements, to include classified material escort responsibilities.

b. Ensure appropriate personnel are familiar with the duties and responsibilities in conjunction with classified movement and shipment, if applicable.

c. Initiate censorship education program.

d. Conduct OPSEC program.

e. Prepare briefing for unit personnel to be conducted when movement is imminent. Briefing will include, but not be limited to, the following:

(1) Dissemination of movement data on a need-to-know basis.

(2) Procedure for handling movement documents.

(3) Procedures for handling classified material in transit.

(4) Subversion and Espionage Directed Against US Army.

(5) Procedures for classified moves.

f. Ensure all personnel, including fillers, are briefed on OPSEC practices.

g. Brief command and staff personnel on the nature of the threat's EW/signals intelligence capabilities.

h. If sealed-off staging areas are used—

(1) Establish strict security.

(2) Enforce blackout camouflage.

(3) Conduct mission briefings at the latest possible time prior to out-loading.

(4) Restrict briefed personnel to sealed-off area.

(5) Establish and enforce controlled pass procedures.

(6) Monitor and control telephone use.

(7) Ensure personnel hospitalized or confined during staging are isolated until public announcement of the operation.

(8) Collect letters and other personal mail and place in sealed mailbags until public announcement of the operation.

i. Identify classified documents that will not accompany the hospital.

j. Ensure timely transfer or destruction of classified material not to accompany the hospital.

k. Review plans for the conduct of a CI inspection of the area upon departure.

l. Review plans for the return of cryptographic material, not accompanying the hospital, to the office of record or issue; transfer as appropriate.

m. Ensure all plans contain OPSEC and CE security planning considerations.

n. Plan for the distribution of maps and related topographical materials.

o. If deploying from a civilian port, forward request for port security to US Army Intelligence and Security Command through appropriate channels.

Section VI. LOGISTICS CHECKLIST—DEPLOYMENT

K-31. Subsistence

a. Draw unit basic load of rations and store with TAT cargo.

b. Draw rations to support deployment (3 days for Army pre-positioned stocked units, 5 days for non-Army pre-positioned stocked units) and load in a readily accessible manner.

c. Arrange subsistence support to any portion of the unit that will not accompany the main body.

d. For hospitals operating their own dining facility—

(1) Close out all accounts and hand receipts.

(2) Turn in or transfer all unused rations and condiments.

(3) Make arrangements to subsist assigned personnel at another activity from the closure of the dining facility until deployment.

e. For hospitals supported at another activity's dining facility—

(1) Make arrangements with the supporting facility for final turn in of meal cards.

(2) Coordinate with supporting dining facility for the release of deploying food service personnel.

f. Submit the necessary paperwork to the finance office to terminate basic allowance for subsistence for any personnel receiving it; arrange to subsist personnel on the termination of their basic allowance for subsistence.

K-32. Supplies

a. Pack the hospital's 15-day supply of expendables with TAT cargo.

b. Report significant shortfalls in expendable supplies to the supporting element.

c. Report shortfalls in individual clothing items to the supporting element.

d. Report shortfalls in organizational clothing and equipment to the supporting element.

e. Report shortfalls in tools and/or test equipment to the supporting element.

f. Close out all station property accounts.

g. Close out SSSC account, and complete credit and turn in.

h. Ensure that coordination has been completed with the installation DODAAC coordinator for contingency DODAACs, split-based operations and deployments, change of addresses and unique tasked force structure requirements (AR 710-2).

K-33. Ammunition

a. Draw basic load of ammunition; include in the TAT cargo load plans.

b. Draw necessary ammunition to guard equipment during deployment.

K-34. Major End Items

a. Turn in all excess items and other equipment not accompanying the hospital.

b. Pick up all incoming items of equipment on the property records.

c. Report shortages to the EOC and the supporting element.

K-35. Medical Items

a. Ensure all medical items and supplies are received and included in the loading plans.

b. Report shortages to the EOC and the supporting element.

c. Ensure that all medical supplies requiring special handling (paragraph K-16*f*) are on hand and included in the loading plans.

d. Ensure all required medical equipment support kits are on hand or on order.

K-36. Repair Parts

a. Adjust PLL to reflect any equipment increases and expected increased utilization; have PLL at 100 percent fill; if not, report critical shortage to the supporting element.

b. Prepare loading plans that place the PLL in a readily available location.

K-37. Maintenance

a. Complete calibration.

b. Close out direct support and general support job orders at the maintenance support facility.

c. Conduct inspection of vehicles and other major end items to ensure that they are ready for deployment. Take corrective action as required.

d. Complete equipment records for newly received equipment according to DA Pamphlet 738-750.

e. Have unit mechanics available to support convoy moves to the POE. Arrange for toolboxes.

f. Arrange for recovery support, both internal and external, and address in the movement plans.

g. Maintain floats for those that cannot be taken out of support maintenance.

K-38. Transportation

Transportation planning and requirements represent the most detailed and transient elements of the deployment process. As a result, a complete checklist of all possible requirements would be too bulky for meaningful use by the commander. Therefore, the commander and the unit movement coordinator must be thoroughly familiar with FORSCOM and installation mobilization requirements. Presented below are major topics that are common to the various modes of deployment.

a. *General.*

(1) Configure unit vehicle loads for air and/or sea deployment, as appropriate.

(2) Mark all vehicles, crates, and pallets as required.

(3) Have all vehicles clean and free from leaks and seeps.

(4) Have fuel pods and bladders prepared and certified.

(5) Mark all TAT cargo with 3-inch red or yellow disk and stencil "TAT" on the disk.

(6) Prepare packing lists (DD Form 1750).

(7) Designate armed guards for classified and sensitive cargo.

b. Blocking, Bracing, Packing, Crating, and Tie-Down.

(1) Determine, in coordination with the appropriate office, specific BBPCT requirements for deployment based on actual personnel and equipment for movement; actual method of movement; equipment for movement; and POE.

(2) Request any necessary BBPCT support from the USAF. The request should identify—

(*a*) The location of the POE at which the support is required.

(*b*) The date and time which hospital personnel will report to the POE, and the date and time they will depart (deploy).

(3) Request any packing and crating support necessary to supplement organic assets for sealing previously fabricated supplemental packing items.

(4) Provide space in the unit area for packing and crating operations.

(5) Deliver equipment and supplies to the designated packing and crating base of operations.

(6) Maintain a packing list for each box packed.

(7) Provide sufficient trained teams to execute rail, air, and sea loading operations. Type team is dependent upon specified method of deployment.

c. Convoy Operations.

(1) Submit road clearances (DD Form 1265) and oversized cargo clearance (DD Form 1266) to the supporting transportation element for unit moves to POE.

(2) For movement to seaport POE—

(*a*) Provide convoy and serial commanders with strip maps, EMT and emergency maintenance instructions, and other points of contact.

(*b*) Coordinate and finalize billeting and messing arrangements for drivers.

(*c*) Ensure priority for unit recovery capability is given to POE convoy.

(3) Allocate maintenance personnel to each convoy to assist in final preparation of vehicles for loading.

(4) Brief each serial commander on refueling and defueling requirements.

(5) Arrange, as required, for civilian or military escort.

d. *Forms*.

(1) Have TCMDs (DD Form 1384) completed; one form for each vehicle or other exterior container.

(2) Have load plans completed for each vehicle; load plans will reflect necessary last minute adjustments.

(3) Submit request to AMC for personnel being air transported.

(4) Prepare DD Form 1387-2 for hazardous cargo to be airlifted.

(5) Prepare DA Form 2940-R for vehicles, trailers, MILVANs, pallet loads, or other exterior shipping containers.

(6) Prepare aircraft load plans as required by Military Airlift Command.

K-39. Miscellaneous Logistics

a. Finalize support arrangements for rear detachment, if required.

b. Have all supply and maintenance accounts closed out and signature cards canceled.

c. Notify the appropriate activity, in writing, of the termination date of any contract that provides supplies or services.

d. Billeting.

(1) All personnel in BOQ or BEQ will clear quarters.

(2) Notify finance of the cutoff date for BAQ for all single personnel.

(3) Brief dependent families on family quarters policies and procedures.

(4) All personnel residing off-post will either terminate their leases or make other suitable arrangements.

e. Secure personal property.

(1) Inventory and pack personal property.

(2) Provide soldiers with a copy of the personal property inventory.

(3) Transfer all personal property to the supporting transportation element.

f. Real property facilities.

(1) Request termination of assigned RPF.

(2) Request designation of interim RPF manager through command channels.

(3) Transfer accountability for RPF to the interim RPF manager prior to deployment.

APPENDIX L

LAW OF WAR OBLIGATIONS FOR MEDICAL PERSONNEL

L-1. Law of War

a. Sources.

(1) Sources for the law of war obligations of the US are treaties ratified by the US. As such, they are part of the supreme law of the land. The US is obligated to adhere to these treaty obligations even when an opponent does not. It is the policy of the DOD and the US Army to conduct its military operations in a manner consistent with these treaty obligations.

(2) In the area of CHS, the law of war sources are the Geneva Conventions for the Protection of War Victims of 12 August 1949. Questions regarding implementation and interpretation of these treaties should be directed to the command judge advocate, or to the Office of the Judge Advocate General of the Army.

b. Geneva Conventions. The four 1949 Geneva Conventions are as follows:

(1) Geneva Convention for the Amelioration of the Condition of the Wounded and Sick in the Armed Forces (GWS). This convention provides for the protection of Armed Forces personnel who are wounded and sick on the battlefield. It requires States Parties to a conflict to take all possible measures to search for and collect the military wounded and sick; to protect them against pillage and ill treatment; to ensure their adequate care; and to search for the military dead. It also provides for the protection of AMEDD personnel. The GWS is the primary source for the obligations set forth in this appendix.

(2) Geneva Convention for the Amelioration of the Condition of Wounded, Sick and Shipwrecked Members of the Armed Forces at Sea (GWS [Sea]). This treaty extends the guarantees of the GWS for wounded, sick or shipwrecked military personnel at sea. Once those personnel are placed on land, the GWS provisions apply.

(3) Geneva Convention Relative to the Treatment of Prisoners of War (GPW). This treaty provides protection for military personnel who fall into enemy hands. Captured military wounded and sick remain prisoners of war during their recovery from their wounds or sickness, and for the duration of their captivity.

(4) Geneva Convention Relative to the Protection of Civilian Internees in Time of War (GC). The convention provides for the protection of civilians in the hands of enemy military forces, or who are in enemy-occupied territory. It also sets forth standards for their medical care.

L-2. Medical Implications of Geneva Conventions

a. Provisions for Collection of Wounded and Sick. Provisions must be made for the collection and treatment of military wounded and sick personnel, whether friend or foe. Only urgent medical reasons may determine priority in the order of treatment to be administered. This means that military wounded or sick enemy personnel may require treatment before military wounded US or allied personnel. The principle

of triage is consistent with this obligation. For military wounded or sick enemy military personnel, a dual responsibility exists—custodial and medical. The custodial activity of guarding military wounded or sick EPW should be carried out by assets other than AMEDD personnel. The echelon commander will designate nonmedical units to act as guards when EPW are in medical channels.

b. Accountability and Custody of Enemy Prisoners of War. Enemy prisoners of war or retained personnel (RP) evacuated through medical channels must be identified and their accountability established prior to evacuation per appropriate TSOP. Sick, injured, and wounded EPW or RP may be evacuated through normal medical channels, but segregated from US and allied personnel. They may also be evacuated through dedicated or task-organized evacuation assets, particularly in rear areas where they are likely to be moved in a group.

c. Responsibility for and Handling of Prisoners of War. The US Army is responsible for the care and treatment of EPW and RP Army units capture, and for EPW/RP captured by other US Services or allies upon their transfer to Army custody. Below brigade level, EPW/RP are handled by combat troops who bring them to the forward or brigade collecting points. Subject to the tactical situation and available resources, EPW/RP wounded, injured, or sick will be evacuated from the CZ as soon as possible. Only those injured, sick, or wounded EPW/RP who would run a greater health risk by being immediately evacuated may be temporarily kept in the CZ. When intelligence sources indicate that large numbers of EPW/RP may result from an operation, medical units may require reinforcement to support the additional EPW/RP patient workload. In this case, the care of wounded, injured, and sick EPW/RP becomes a joint matter between the ground combat commander and the medical commander. For a more detailed discussion on the administration, handling, treatment, and identification of EPW/RP, see AR 190-8 and FM 19-4.

d. Identification and Protection of Medical Personnel.

(1) Personnel exclusively engaged in the performance of medical duties in connection with the wounded, injured, or sick in medical units or establishments may wear, affixed to the left arm, a water-resistant brassard/armband bearing the distinctive emblem (a red cross on a white background) prescribed by GWS and GWS (Sea). The wearing of brassards/armbands will be at the discretion of the tactical commander in far forward areas.

(2) Medical personnel as identified in paragraph (1) are to carry a special identity card, DD Form 1934 (Geneva Conventions Identity Card for Medical and Religious Personnel Who Serve in or Accompany the Armed Forces), issued to all persons qualifying as protected medical personnel (see AR 600-8-14). This special identification card will be carried in addition to their regular identification card.

(3) Enemy military personnel meeting the definition of medical personnel contained in paragraph (1) who are captured are considered RP and not EPW. They will receive the benefits and protection afforded them by the GWS and GPW. They may be required to treat injured, wounded, or sick EPW/RP. United States medical personnel or medical units that are captured may be required to do likewise, continuing to provide medical support for injured or sick US or allied prisoners of war/RP while in captivity. In such a situation, this probably would be a primary source of treatment for US prisoners of war and RP, although enemy wounded could be treated also.

(4) Personnel protected as medical personnel under the GWS must be *exclusively engaged* in medical duties or administration of medical units. This includes all military personnel permanently assigned to a medical unit and exclusively engaged in its mission, including cooks, mechanics, drivers, or administration personnel. Performance of any activity inconsistent with this mission removes the protection, and the DD Form 1934 must be withdrawn. For example, if an ambulance driver is tasked with driving an unmarked tactical vehicle forward with ammunition prior to evacuating casualties, he would not be exclusively engaged in medical duties and would not be entitled to continued classification as *medical personnel*.

e. Self-Defense.

(1) Medical personnel may carry small arms for personal defense of themselves and defense of their patients. This does not mean that they may resist capture or otherwise fire on the advancing enemy. It means that, if civilians or enemy military personnel are attacking and ignoring the marked medical status of medical personnel, medical transportation or the medical unit, the medical personnel may provide self-protection. If an enemy force merely seeks to assume control of a military medical facility or a vehicle for the purposes of inspection and without firing on it, the facility or vehicle may not resist.

(2) Medical personnel are entitled to carry defensive small arms only. By Army policy these are defined as service rifles (M-16) and pistols (M9 or M11).

(3) An overall defense plan may not require medical units to take offensive or defensive action against enemy troops at any time. If a medical force is part of a defensive area containing nonmedical units, medical personnel may not be responsible for manning part of the overall perimeter. If located in isolation, the medical unit may provide its own local and internal security if other support is not available. However, a medical unit may not be defended from capture or inspection by enemy forces by military police or other soldiers acting as pickets.

(4) If medical personnel fire on enemy troops or otherwise abuse their protected status by engaging in acts harmful to the enemy, they may be attacked. It is also possible that such a violation could result in an allegation of violation of the law of war by the capturing force. For example, if an enemy force was advancing on a marked medical facility and medical personnel within the facility then took advantage of their protected status to fire at the enemy, the enemy forces would be entitled to return fire and medical personnel subsequently captured may be charged with a violation of the law of war. Under the law of war, this action would constitute an act of perfidy. It would be akin to firing on enemy soldiers while bearing a flag of truce.

This paragraph implements STANAG 2931.

f. Marking of Medical Units/Facilities and Transportation.

(1) *Medical units and facilities.*

(*a*) The distinctive emblem (red cross on a white background) provided in the GWS and GWS (Sea) for medical units, facilities, and transportation shall be displayed only over such medical

units and facilities (except veterinary) as are entitled to be respected under the conventions, subject to the authorization of the tactical commander of a brigade-size or larger unit. The marking of facilities and the use of camouflage are incompatible and should not be undertaken concurrently. The camouflage of medical units is regulated by ARs and also, in the European theater, by NATO STANAG 2931. It is not envisioned that fixed, large medical facilities will be camouflaged. The medical commander must be aware of who has the authority to order camouflage and its duration. The camouflage of medical facilities is one of the more difficult issues to reconcile with operational necessities. The problem has been present in past wars but now is more critical due to the ability of intelligence assets to see deep into the rear AO. If the failure to camouflage endangers or compromises the tactical mission, the camouflage of medical facilities may be ordered by a NATO commander of at least brigade level or equivalent. Such an order is to be temporary and local in nature and is rescinded as soon as circumstances permit.

(*b*) The camouflage of a medical unit does not deprive it of its protected status. However, an enemy force is not required to forego an attack on a camouflaged facility unless it recognizes it as a medical facility. The use of defensive arms by medical personnel at a camouflaged site attacked by ground maneuver forces is not authorized unless the actions of the attacking forces clearly are illegal rather than the result of mistaken identity. Medical personnel should attempt to make the attackers aware of their status rather than fighting back.

(*c*) If medical facilities are used to commit acts harmful to the enemy, the protection of those facilities may be withdrawn if the acts are not stopped after warning. This might be the case where a facility is used as an observation post or if combat information was reported or relayed through the facility.

(2) *Medical transportation*.

(*a*) Standard air and ground ambulances should be marked with the distinctive emblem when performing medical missions. Medical transportation may not bear the distinctive emblem if and so long as it is used for nonmedical missions. Fighting vehicles, such as a tank, are not entitled to bear the distinctive emblem even when used for battlefield evacuation. However, aviators and drivers with status as medical personnel may not perform nonmedical tasks without risk of loss of their medical personnel status. As such, the policy that benefits the mission to the greatest degree is to use air and ground medical transportation exclusively for medical tasks.

(*b*) Crew-served weapons may not be mounted on ambulances or air ambulances, even if mounting brackets are present.

(*c*) Vehicles other than fighting vehicles (such as tanks) may be used in a dual role, moving wounded to the rear bearing removable distinctive emblems. However, the distinctive emblems must be removed before nonmedical tasks are attempted. Care must be taken so that the protection provided by the distinctive emblem is not abused.

(*d*) The protection provided medical aircraft bearing the distinctive emblem extends only to areas in which it is entitled to operate due to the absence of enemy forces or, if enemy forces are present, with the consent of enemy forces. If the latter, medical aircraft may operate only at such times and on such routes for which there is agreement, and medical aircraft must land to be searched if summoned to

do so by enemy forces. Failure to respond to a summons to land may entitle the enemy to attack the aircraft. Medical aircraft may be used for combat search and rescue (CSAR) missions if all vestiges of its medical aircraft status, such as the distinctive emblem, are removed for the duration of the CSAR mission. In such cases, it would not be operating as a medical aircraft but as a military aircraft. The legal prohibition is not on the use of an aircraft normally dedicated to medical missions, but on use of its status as a medical aircraft during any CSAR mission. If used for CSAR missions, military aircraft are not entitled to protection from enemy attack.

g. Civilians—Wounded and Sick. Civilians who are injured, wounded, or become sick as a result of military operations may be collected and provided initial medical treatment in accordance with theater policies. If treated, treatment will be on the basis of medical priority only. If treated, they shall be transferred to appropriate civil authorities as soon as possible. The echelon commander and medical unit commanders jointly exercise responsibilities for custody and treatment of the sick, injured, or wounded civilian personnel. Enemy civilians detained by US forces are entitled to military medical care during their detention. Treatment will be on the basis of medical priority only.

h. Captured Medical Supplies and Equipment. Because medical supplies and equipment captured from the enemy are considered neutral and protected, they are not to be intentionally destroyed. If these items are considered unfit for use, or if they are not needed for US and allied forces, noncombatants, or EPW patients, they may be abandoned for enemy use. Since captured medical personnel are familiar with their medical supplies and equipment, the captured items are especially valuable in the treatment of EPW. Use of these captured items for EPW and the indigenous population helps to conserve other medical supplies and equipment. When the capture of US medical supplies and equipment by enemy forces is imminent, these items are not to be purposely destroyed. Every attempt must be made to evacuate them. Those items that cannot be evacuated should be abandoned; however, such abandonment is a command decision.

L-3. Compliance with the Geneva Conventions

a. As the US is a signatory to the Geneva Conventions, all medical personnel should thoroughly understand the provisions that apply to CHS activities. Violation of these Conventions can result in the loss of the protection afforded by them. Medical personnel should inform the tactical commander of the consequences of violating the provisions of these Conventions.

b. Outright violations of the Geneva Conventions result when—

- Medical personnel are used to man or help man the perimeter of nonmedical facilities, such as unit trains, logistics areas, or base clusters.

- Medical personnel are used to man any offensive-type weapons or weapons systems.

- Medical personnel are ordered to engage enemy forces in other than self-defense, or in the defense of patients and MTFs.

- Crew-served weapons are mounted on a medical vehicle.

- Mines or booby traps are placed in and around medical units and facilities.

- Hand grenades, light antitank weapons, grenade launchers, or any weapons other than rifles and pistols are issued to a medical unit or its personnel.

- The site of a medical unit is used as an observation post, a fuel dump, or an ammunition storage site.

c. Possible consequences of violations described in *b* above are—

- Loss of protected status for the medical unit and personnel.

- Medical facilities attacked and destroyed by the enemy.

- Medical personnel being considered prisoners of war rather than retained persons when captured.

- Combat health support capabilities are decremented.

d. Other examples of violations of the Geneva Conventions include—

- Making medical treatment decisions for the wounded and sick on any basis other than medical priority, urgency, or severity of wounds.

- Allowing the interrogation of enemy wounded or sick even though medically contraindicated.

- Allowing anyone to kill, torture, mistreat, or in anyway harm a wounded or sick enemy soldier.

- Marking nonmedical unit facilities and vehicles with the distinctive emblem or making any other unlawful use of this emblem.

- Using medical vehicles marked with distinctive Geneva emblem for transporting nonmedical troops, equipment, and supplies.

- Using a medical vehicle as a tactical operations center.

e. Possible consequences of violations described in *d* above are—

- Criminal prosecution for war crimes.

- Reprisals taken against our wounded in the hands of the enemy.

- Medical facilities attacked and destroyed by the enemy.

- Medical personnel being considered prisoners of war rather than RP when captured.

APPENDIX M

EXAMPLE OF HOSPITAL LAYOUT

M-1. An example of a CSH layout is shown in Figure M-1 (page M-2). The layout is designed to depict the elements of the 84-bed hospital company (Figure M-2, page M-3), and the 164-bed hospital company (Figure M-3, page M-4). The actual layout of the hospital is contingent upon the METT-TC factors and guidance provided by the hospital commander.

M-2. The corps and EAC CSHs are very similar in design (see Figures 2-4—2-7, paragraphs 2-3*f* and 4-6*a*—*b*). With minor adjustments, Figure M-1 can be used as the basis for the layout of the EAC CSH.

M-3. The 164-bed hospital company contains the chemical and biological protected shelter system for operation in a contaminated environment. The 84-bed hospital company will not have the capability to function in a contaminated environment.

M-4. The hospital will set up and locate the patient decontamination area at least 30 to 50 yards downwind of the hospital.

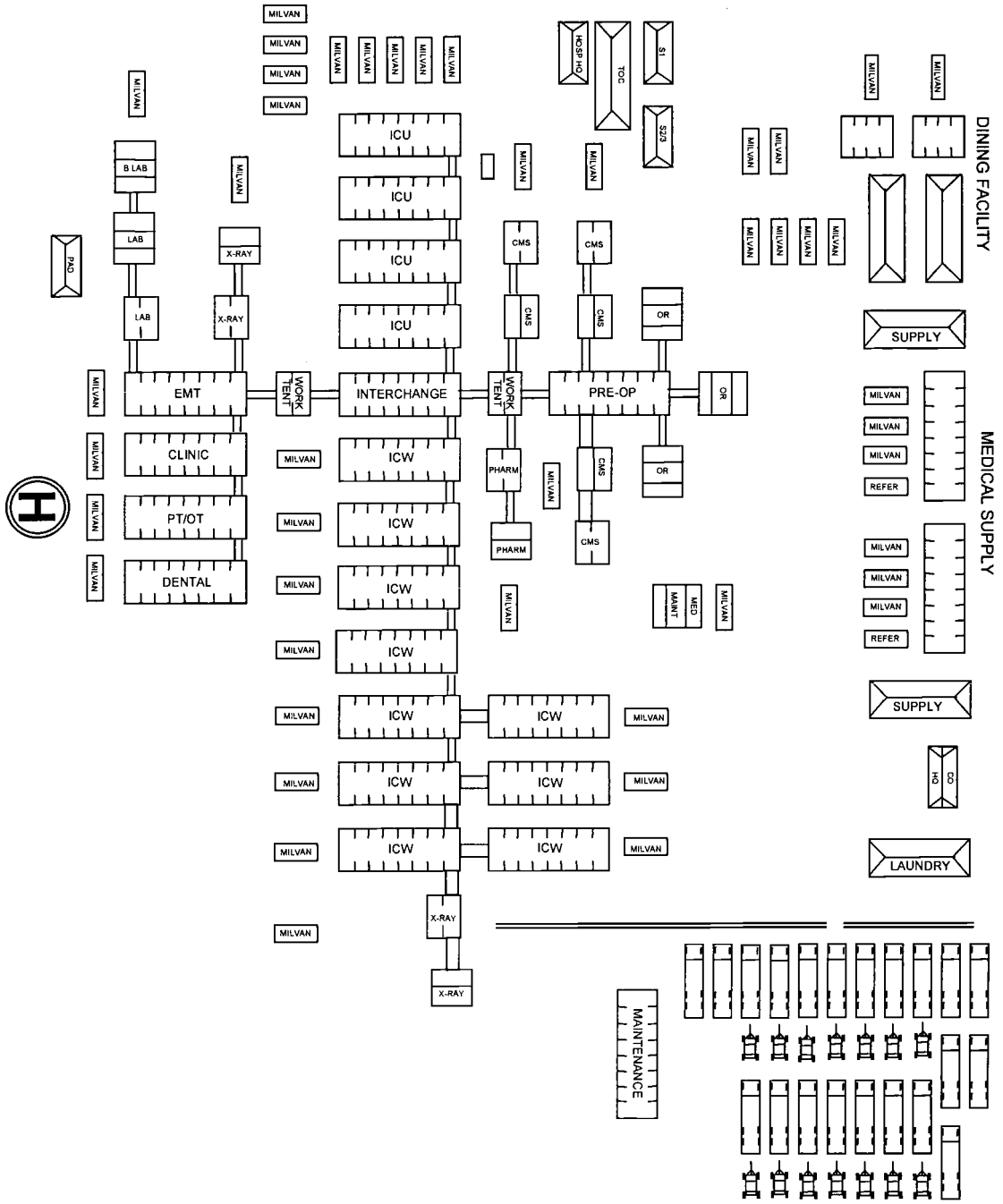


Figure M-1. Example of a combat support hospital layout.

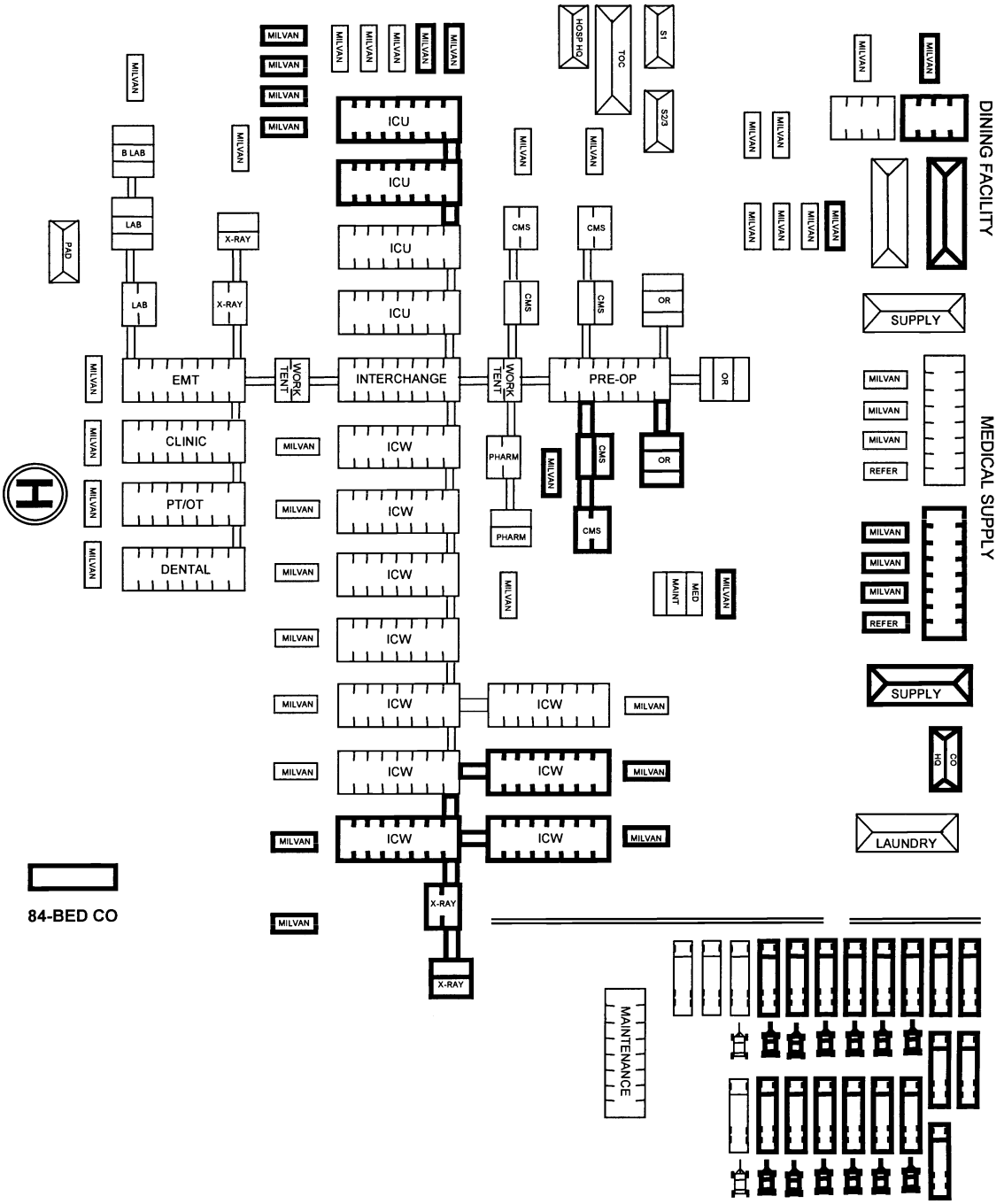


Figure M-2. Example of a combat support hospital 84-bed hospital company layout.

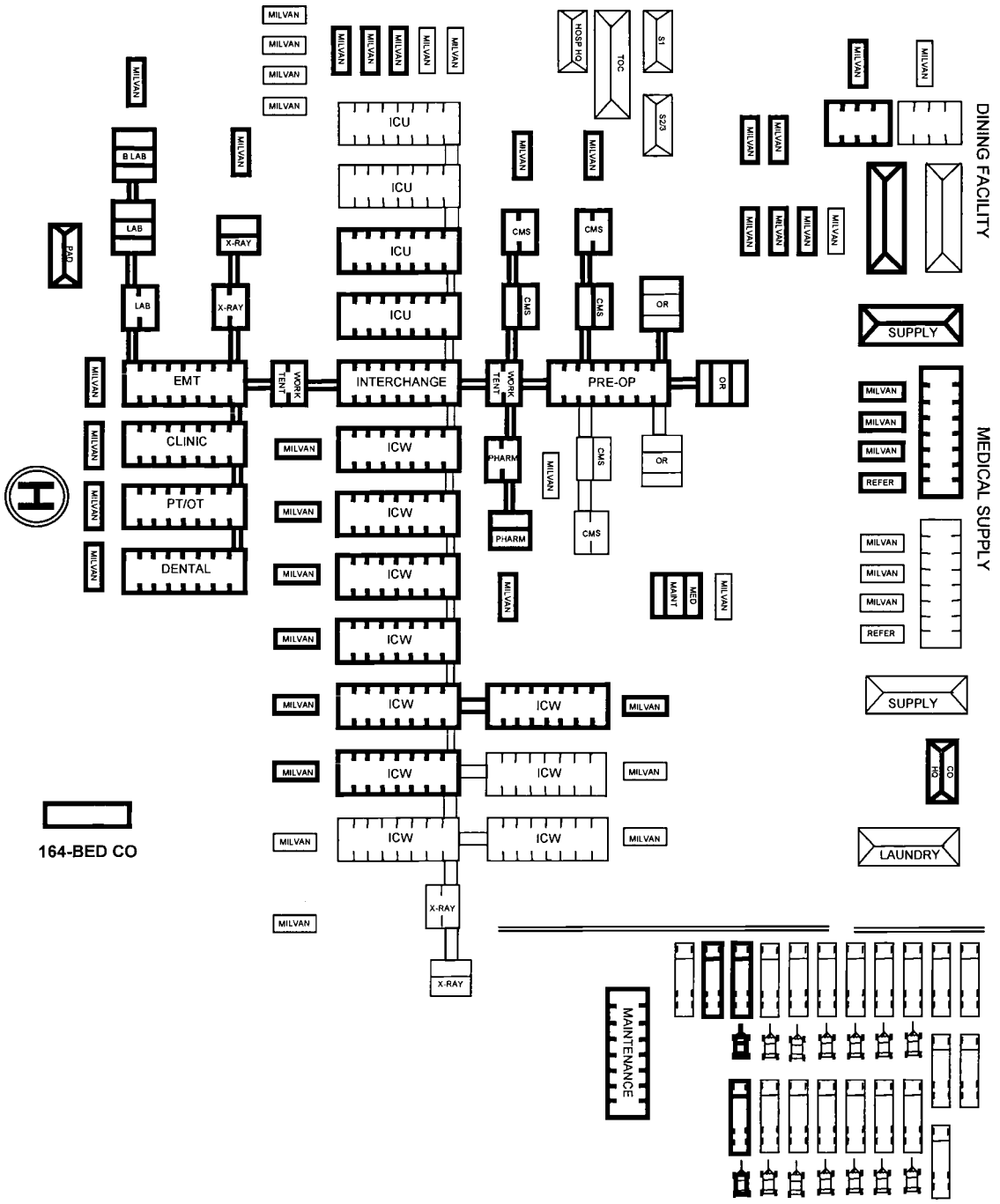


Figure M-3. Example of combat support hospital 164-bed hospital company layout.

GLOSSARY

ABBREVIATIONS, ACRONYMS, AND DEFINITIONS

AAD admissions and dispositions

ABCS *See* Army Battle Command System.

AC Active Component

ACSMED Assistant Chief of Staff for Medicine

ACUS area common-user system

ADA air defense artillery

admin administration

AFMIC Armed Forced Medical Intelligence Center

AIRDC Army Ionizing Radiation Dosimetry Center

AIS automated information system

AJBPO Area Joint Blood Program Officer

AM amplitude modulated

AMC Air Mobility Command

AMEDD Army Medical Department

AMEDDC&S Army Medical Department Center and School

ammo ammunition

AO area of operations

AOC area of concentration

AR Army Regulation

Army Battle Command System (ABCS) The ABCS integrates Army battlefield functional area systems to link strategic, operational, and tactical headquarters. It provides commanders and staffs at corps and below a relevant, common picture through improved situational awareness and battlefield digitization. The ABCS includes three components: the Global Command and Control System-Army (GCCS-A); the Army Tactical Command and Control System (ATCCS); and the emerging Force XXI Battle Command Brigade and Below (FBCB2) system.

Army Tactical Command and Control System (ATCCS) This system has been fielded to meet tactical command and control requirements from brigade to corps. The ATCCS includes a standard automation architecture that uses tactical communications. The ATCCS consists of the following five automated battlefield functional area control systems: Advanced Field Artillery Tactical Data System; Maneuver Control System; Combat Service Support Control System; All Source Analysis System; and Forward Area Air Defense Command, Control, Communications and Intelligence System.

AS area support

ASCC Army Service Component Command

ASG area support group

ASMB area support medical battalion

ATCCS *See* Army Tactical Command and Control System.

ATLS® Advanced Trauma Life Support®

ATM advanced trauma management

attn attention

AUG augmentation

B LAB blood laboratory

BAQ basic allowance for quarters

BAS battalion aid station

BBPCT blocking, bracing, packing, crating, and tie-down

bde brigade

BEQ bachelor enlisted quarters

bn battalion

BOQ bachelor officers' quarters

BTC Blood Transshipment Center

BW biological warfare

C2 command and control

C2P command and control processor

C4I command, control, communications, computers, and intelligence

CB chemical/biological

cbt combat

CD-ROM compact disk-read only memory

CE communications-electronics

CHCSII *See* Composite Health Care System.

chem chemical

CHS combat health support

CI counterintelligence

CINC Commander in Chief

cmd command

CMF career management field

CMS central material service

CNR combat net radio

CNTL control

co company

COE common operating environment

Combat Service Support Control System (CSSCS) This system provides critical, timely, integrated, and accurate automated CSS information to combat service support, maneuver, and theater commanders and to logistic and special staffs. The CSSCS processes, analyzes and integrates resource information to support evaluation of current and projected force sustainment capabilities. The CSSCS will be deployed from echelons above corps to battalion.

COMMZ communications zone

Composite Health Care System (CHCSII) This system is part of the joint services software suite that is currently being integrated under theater medical information program. In its endstate the CHCSII will be a clinical information system that will generate and maintain a comprehensive, life-long, computer-based patient record of all preventive care rendered to, and all illness and injury treatment for, each military health system beneficiary. Enterprise-wide implementation of this system will support the commitment of the Department of Defense to conduct population health management throughout the military health system.

COMSEC communications security

CONUS continental United States

COSCOM corps support command

COTS commercial off-the-shelf

CP chemically protected

CPS collective protection shelter

CS combat support

CSAR combat search and rescue

CSC combat stress control

CSH combat support hospital

CSS combat service support

CSSCS *See* Combat Service Support Control System.

cu ft cubic foot (feet)

CW chemical warfare

CZ combat zone

DA Department of the Army

DAMMS-R *See* Department of the Army Movement Management System-Redesigned.

DBSS Defense Blood Standard System

DD Department of Defense

DE directed energy

decon decontamination

DEERS defense eligibility enrollment system

DEET 75 percent N, N-diethyl-M-tolumide

DEFCON defense readiness condition

Defense Medical Logistics Standard Support (DMLSS) This is the medical logistics software portion of the theater medical information program. In its endstate, DMLSS will provide all medical logistics business practice functions for Department of Defense.

DEP Draft Equipment Publication

Department of the Army Movement Management System-Redesigned (DAMMS-R) This system was developed as a theater cargo movement and mode asset management system. It provides timely and accurate information to movement managers, highway regulators, and mode operators within the area of operations. It provides shipment planning information, such as consignee listings, destination information, and cargo on hand, so the system user can determine priorities, forecast workload and conveyance requirements, and develop appropriate hazardous or local-unique documents. It also serves as the tool to develop a pickup/delivery schedule designed to maximize unit transportation assets. The DAMMS-R will be replaced by the Transportation Coordinators Automated Information for Movements System II.

DEPMEDS Deployable Medical System

det detachment

DISN Defense Information Systems Network

div division

DLA Defense Logistics Agency

DMLSS *See* Defense Medical Logistics Standard Support.

DMSO division medical supply office

DNA deoxyribonucleic acid

DNBI disease and nonbattle injury

DOD Department of Defense

DODAAC Department of Defense Activity Address Code

DSMC division support medical company

DSN Defense Switched Network

DVA Department of Veterans Affairs

EAC echelons above corps

ECB echelons corps and below

ECU environmental control unit

EMT emergency medical treatment

eng engineer

EOC emergency operations center

EOD explosive ordnance disposal

EPLRS Enhanced Position Location Reporting System

EPW enemy prisoner of war

EW electronic warfare

FAO finance and accounting office

FAX facsimile

FBCB2 *See* Force XXI Battle Command Brigade and Below System.

FFP fresh frozen plasma

FH field hospital

fin finance

FLOT forward line of own troops

FM field manual; frequency modulated

Force XXI Battle Command Brigade and Below System (FBCB2) This is a digital, battle command information system that provides mounted/dismounted tactical combat, combat support, and combat service support commanders, leaders, and soldiers integrated, on-the-move, real-time/near real-time, battle command information and situational awareness from brigade down to the soldier/platform level across all battlefield functional areas. The FBCB2 is located in the mounted and dismounted maneuver (divisional, separate, heavy, and light) armor/cavalry/reconnaissance, and armored cavalry, mechanized infantry, infantry, and aviation units.

FORSCOM United States Army Forces Command

FRAGO fragmentary order

FSC Federal Supply Classification

FSMC forward support medical company

FST forward surgical team

ft foot (feet)

fwd forward

G2 Assistant Chief of Staff (Intelligence)

G6 Assistant Chief of Staff (Signal)

gal gallon

GC Geneva Convention Relative to the Protection of Civilian Internees in Time of War

GCCS *See* Global Command and Control System.

GCCS-A *See* Global Command and Control System-Army.

GCSS-A *See* Global Combat Support System-Army.

GH general hospital

Global Combat Support System-Army (GCSS-A) This system is being developed as a replacement for several of the Army's current STAMIS. It will operate in conjunction with other key systems (such as the Transportation Coordinators' Automated Information for Movement System II [TC-AIMS II], the Movement Tracking System [MTS], and the CSSCS) to provide support personnel detailed information about what support is required by the warfighter and the current availability of needed material, to include items in the distribution pipeline.

Global Command and Control System (GCCS) This system is the key joint command, control, communications, computers, and intelligence system. The GCCS and associated Service components have replaced the Worldwide Military Command and Control System (WWMCCS). Like WWMCCS, GCCS is a system of interconnected computers that provides an integrated command and control capability to the entire joint community. It provides up to SECRET-level information from a wide variety of applications that have migrated, or are in the process of migrating, from other systems including the Joint Operations Planning and Execution System. The GCCS provides a fused picture of the battlespace within the overall command, control, communications, and computers system. The ABCS is the Army's component of GCCS.

Global Command and Control System-Army (GCCS-A) This is the Army's link for ABCS to the GCCS. The GCCS-A will provide a suite of modular applications and information and decision support to Army's strategic-/operational-/theater-level planning and operational/theater operations and sustainment. The GCCS-A will support the apportionment, allocation, logistical support, and deployment of Army forces to the combatant commands. Functionality includes force tracking, host nation and civil affairs support, theater air defense, targeting, psychological operations, command and control, logistics, medical, provost marshal, counterdrug, and personnel status. The GCCS-A will be deployed from theater echelons above corps elements to division.

GOTS government off-the-shelf

gp group

GPS Global Positioning System

GPW Geneva Convention Relative to the Treatment of Prisoners of War

GSA General Services Administration

GWS Geneva Convention for the Amelioration of the Condition of the Wounded and Sick in the Armed Forces

GWS (Sea) Geneva Convention for the Amelioration of the Condition of the Wounded, Sick, and Ship-wrecked Members of the Armed Forces at Sea

H&S heat and serve

HCP Health and Comfort Pack

HHD headquarters and headquarters detachment

HMMWV high-mobility multipurpose wheeled vehicle

HN host nation

hosp hospital

HQ headquarters

hr hour

ICR individually carried record

ICU intensive care unit

ICW intermediate care ware

IHFR improved high-frequency radio

IMSA *See* installation medical supply activity.

installation medical supply activity (IMSA) The IMSA in CONUS is the supply support activity (SSA) for medical materiel for an installation or geographic area. Outside the continental United States, it is normally the primary SSA for medical materiel for a designated geographic area.

IOM installation, operation, and maintenance

IS information systems

ISO International Organization for Standardization

ISSO Information Services Support Officer

ITDB interim theater database

IV intravenous

JTRS joint tactical radio system

LAB laboratory

LAN local area network

lb(s) pound(s)

ldr leader

LEN large extension node

LOGMARS Logistics Application of Automated Marking and Reading Symbols

MA mortuary affairs

MAINT maintenance

MBU modern burner unit

MC4 medical communications for combat casualty care

MCC movement control center

med medical

MED-16 reportable conditions roster

MEDASM medical assemblage management

MEDBLD medical blood

MEDCOM medical command

MEDLOG medical logistics

MEDLOG-D medical logistics-division

MEDMNT medical maintenance

MEDPAR medical patient accounting and reporting

MEDPAR-D medical patient accounting and reporting-division

MEDREG medical regulating

MEDSUP medical supply

MES medical equipment set

METT-TC mission, enemy, terrain, troops, time available, and civilian considerations

MF2K Medical Force 2000

MHE materiel handling equipment

MHz megahertz

MI military intelligence

MILVAN military-owned, demountable container

min minimal

MMS medical materiel set

MOPP mission-oriented protective posture

MOS military occupational specialty

Movement Tracking System (MTS) This system will support distribution management through the full spectrum of military operations. The system's integration with TC-AIMS II and GCSS-A will provide commanders and distribution managers an unprecedented movement tracking, control, and management capability. It will provide near real-time information on the location and status of distribution platforms using cabin console-mounted hardware and satellite technology. The MTS will incorporate various technologies including the Global Positioning System, automated identification technology, vehicle diagnostics, and nonline of sight communication and mapping.

MP military police

MRE meals, ready to eat

mrem milli-roentgen equivalent man (mammal)

MRI medical reengineering initiative

MRPO Medical Radiation Protection Officer

MSE mobile subscriber equipment

MTF medical treatment facility

MTOE modified table(s) of organization and equipment

MTS *See* Movement Tracking System.

MTW major theater of war

NAI NATO analog interface

NATO North Atlantic Treaty Organization

NBC nuclear, biological, and chemical

NBI nonbattle injury

NC node center

NCO noncommissioned officer

NCS net control station

NRI net radio interface

NRTD nonreturn to duty

NSB nonsplit based

NSN national stock number

OB/GYN obstetrics/gynecology

OCONUS outside continental United States

op operative/operation

OPLAN operation plan

OPORD operation order

OPSEC operations security

OR operating room

OS Microsoft Office Suite

OSHA Occupational Safety and Health Act

OT occupational therapy

OTSG Office of The Surgeon General

PA physician assistant

PAD patient administration division

PDC personnel data card

pharm pharmacy

PIC personal information carrier

PLL prescribed load list

PMD pounds per man per day

PMI patient movement item

PNS primary node switch

POE port of embarkation

POL petroleum, oils, and lubricants

POM processing for overseas movement

POR processing for overseas replacement

POV privately owned vehicle

PRE-OP preoperative

prof professional

PROFIS Professional Officer Filler System

PT physical therapy

PVNTMED preventive medicine

QC/RPP Quality Control/Radiation Protection Program

RAM random access memory

RAU radio access unit

RBC red blood cells

RC Reserve Component

REFER refrigerator

RMR resource management review

RMW regulated medical waste

ROP reorder point

RP release point; retained personnel

RPF real property facilities

RTD return to duty

S & S supply and service

S1 Adjutant (US Army)

S2 Intelligence Officer (US Army)

S3 Operations and Training Officer (US Army)

S4 Supply Officer (US Army)

S6 Communications-Electronics Officer (US Army)

SARSS *See* Standard Army Retail Supply System.

SCC-2 system control center-2

sec section

SEN small extension node

SIGINT signal intelligence

SF standard form

SIGSEC signal security

SINCGARS Single-Channel Ground and Airborne Radio System

SNS secondary node switch

SOI signal operation instructions

SOP standing operating procedures

SP start point

SPBS-R *See* Standard Property Book System-Redesigned.

spt support

sq square

SRC standard requirement code

SSA supply support activity

SSN social security number

SSSC self-service supply center

STAMIS *See* Standard Army Management Information System.

STANAG standardization agreement

Standard Army Management Information System (STAMIS) This system is composed of separate logistical, medical, and personnel information management systems that provide a continuous flow of information from sustaining base through the tactical level. These systems are currently not seamlessly integrated but rather are subsystems residing on separate computer platforms. To bridge this gap, the GCSS-A initiative is proposed to fulfill the role of an integrated client/server system for all manning, arming, fixing, fueling, transporting, and sustaining support to the warfighter.

Standard Property Book System-Redesigned (SPBS-R) This is an automated property accountability system that provides on-line management information and automated reporting procedures for property book officers. The SBPS-R interfaces with the Standard Army Retail Supply System (SARSS) at the supply support activity to requisition property book and other accountable items required by units. It interfaces with the Unit Level Logistics System-S4 (ULLS-S4) at the unit level to provide the information needed so that the ULLS-S4 can generate the hand receipt/subhand receipt and component listings. The SPBS-R performs automated reporting of assets to support Army total asset visibility.

Standard Army Retail Supply System (SARSS) This system consists of three components: the SARSS-1, the SARSS-2A, and the SARSS-2AC/B. The SARSS-1 is the automated system used in supply support activities at all echelons to accomplish the receive, store, and issue mission. The SARSS-1 has interfaces to receive and process requests for issue from the Unit Level Logistics System, the Standard Property Book System-Redesigned, and the Standard Army Maintenance System-1. The SARSS-2A is the automated supply management system used by managers in materiel management centers at the division, separate brigade, or armored cavalry regiment level. It provides the tools necessary for item managers to establish stockage levels and support relationships, and to control the lateral issue process (that is, referrals) of assets between supply support activities. The SARSS-2AC/B is used at the corps and theater materiel management centers. It provides the same management capabilities for the corps/ theater materiel management center managers who are responsible for corps/theater supply support activities that SARSS-2A provides for divisional materiel management center managers. Additionally, it maintains the demand history files used for demand analysis and the interface with the finance system.

svc service(s)

TAA total Army analysis

TACSAT tactical satellite

TAMMIS Theater Army Medical Management Information System

TASO terminal area security officer

TAT to accompany troops

TB technical bulletin

TB MED technical bulletin, medical

TC training circular

TC-AIMS II *See* Transportation Coordinators' Automated Information for Movement System II.

TCMD transportation control and movement document

TEMPER tent, extendable, modular, personnel

TI technical inspection

TM technical manual; team (when used in graphics)

TMC troop medical clinic

TMED telemedicine

TMIP Theater Medical Information Program

TO theater of operations

TOC tactical operations center

TOE table(s) of organization and equipment

TP digital nonsecure voice telephone

TPFDL Time-Phased Force Deployment List

TPN tactical packet network

TRAC2ES TRANSCOM Regulating and Command and Control Evacuation System

TRADOC United States Army Training and Doctrine Command

trans transportation

TRANSCOM transportation command

Transportation Coordinators' Automated Information for Movement System II (TC-AIMS II) This system is being developed as the deployment system of the future and will replace DAMMS-R and selected other Army transportation systems. It is a Department of Defense system being designed for use by all Services. It will support all unit and installation deployment, redeployment, and retrograde operations requirements. The TC-AIMS II will operate in conjunction with the GCSS-A and the MTS to provide the automated tools needed for successful distribution management. The TC-AIMS II will provide the capability to automate unit movement and installation transportation/traffic management office planning and execution from both in-garrison and deployed field environments. The TC-AIMS II will also provide an automated information management capability to managers involved with movement control and allocation of common-user land transportation in a theater of operations. This system will also provide needed data to the Global Transportation Network and command and control systems at various command levels. The TC-AIMS II will be the standard joint transportation and deployment information management system.

TRI-TAC tri-service tactical communications

tropo tropospheric

TSC theater support command

TSOP tactical standing operating procedure

UDP unit deployment package(s)

UGR Unitized Group Rations

US United States

USACHPPM United States Army Center for Health Promotion and Preventive Medicine

USAF United States Air Force

USAMMA United States Army Medical Materiel Agency

WAN wide area network

Warfighter Information Network (WIN) This is an integrated command, control, communications, and computers network comprised of commercially based, high technology communications network systems. It is designed to enable the gaining of information dominance by increasing the security, capacity, and velocity (speed of service to the user) of information distribution throughout the battlespace. A common sense mix of terrestrial and satellite communications is required for a robust

Army Battle Command System. The WIN will support the warfighter in the 21st century with the means to provide information services from the sustaining base to deployed units worldwide.

WIA wounded in action

WIN *See* Warfighter Information Network.

WPSM warfighter physiological status monitor

XO executive officer

REFERENCES

SOURCES USED

These are the sources quoted or paraphrased in this publication.

NATO STANAGs

These agreements are available on request using DD Form 1425 from Standardization Document Order Desk, 700 Robin Avenue, Building 4, Section D, Philadelphia, Pennsylvania 19111-5094.

2068. *Emergency War Surgery* (Edition 4) (Amendment 3). October 1991.
2931. *Orders for the Camouflage of the Red Cross and Red Crescent on Land in Tactical Operations* (Edition 2). 19 January 1998. (Latest Amendment, 3 April 1998.)

Joint and Multiservice Publications

DOD Instruction 6050.5. *Hazard Communications Program*. 29 October 1990. (Change 1, 6 May 1996.)
29 Code of Federal Regulation (1910.144). *Safety Color Code for Marking Physical Hazards*.
29 Code of Federal Regulation (1910.145). *Specifications for Accident Prevention Signs and Tags*.
29 Code of Federal Regulation (1910.1200). *Hazard Communication*.
Joint Publication 1-02. *DOD Dictionary of Military and Associated Terms*. June 1999.

Army Publications

DA Pam 27-1. *Treaties Governing Land Warfare*. 7 December 1956.
FM 55-1. *Transportation Operations*. 30 October 1995.
FM 55-9. *Unit Air Movement Planning*. 5 April 1993. (Reprinted with basic including Change 1, 14 October 1994.)
TRADOC Pam 525-50. *Operational Concept for Combat Health Support*. 1 October 1996.

Tables of Organization and Equipment

08411A000. *Medical Command, Corps*.
08422A100. *Medical Brigade, Corps*.
08422A200. *Medical Brigade, Echelons above Corps*.
08458L000. *Medical Company, Holding*.
08527AA00. *Hospital Augmentation Team, Head and Neck.*
08527LA00. *Medical Team, Head and Neck Surgery*.
08527LB00. *Medical Team, Neurosurgery*.
08527LC00. *Medical Team, Eye Surgery*.
08537AA00. *Hospital Augmentation Team, Pathology*.
08537LA00. *Medical Team, Pathology*.
08537LB00. *Medical Team, Renal Hemodialysis*.

08537LC00. *Medical Team, Infectious Disease*.
08538AA00. *Hospital Augmentation Team, Special Care*.
08539AA00. *Medical Detachment, Telemedicine*.
08539L000. *Hospital Unit, Holding*.
08611A000. *Medical Command, Echelons above Corps*.
08855A000. *Echelons Above Corps Combat Support Hospital*.
08856A000. *Headquarters and Headquarters Detachment, Combat Support Hospital, Echelons Above Corps*.
08857A000. *Hospital Company, 164-Bed, Echelons above Corps*.
08858A000. *Hospital Company, 84-Bed, Echelons above Corps*.
08949A000. *Medical Detachment, Minimal Care*.
08955A000. *Corps Combat Support Hospital*.
08956A000. *Headquarters and Headquarters Detachment, Combat Support Hospital, Corps*.
08957A000. *Hospital Company, 164-Bed, Corps*.
08958A000. *Hospital Company, 84-Bed, Corps*.

DOCUMENTS NEEDED

These documents must be available to the intended users of this publication.

Joint and Multiservice Publications

*Joint Publication 3-07.3. *Joint Tactics, Techniques, and Procedures for Peace Operations*. 12 February 1999.
FM 3-5. *NBC Decontamination*. FMFM 11-10. 17 November 1993.
FM 8-33 (4-02.33). *Control of Communicable Diseases Manual* (16th Edition). NAVMED P-5038. 9 April 1996.
FM 21-10 (4-25.10). *Field Hygiene and Sanitation*. MCRP 4-11.1D. 21 June 2000.

Army Regulations

AR 11-9. *The Army Radiation Safety Program*. 28 May 1999.
AR 40-5. *Preventive Medicine*. 15 October 1990.
AR 40-66. *Medical Record Administration and Health Care Documentation*. 3 May 1999.
AR 190-8. *Enemy Prisoners of War, Retained Personnel, Civilian Internees and Other Detainees*. OPNAVINST 3461.6; AFJI 31-304; MCO 3461.6. 1 October 1997.
AR 190-11. *Physical Security of Arms, Ammunition and Explosives*. 30 September 1993. (Change 1, 12 February 1998.)
AR 220-1. *Unit Status Reporting*. 1 September 1997.
*AR 220-10. *Preparation for Oversea Movement of Units* (*POM*). 15 June 1973.
AR 350-41. *Training in Units*. 19 March 1993.
AR 380-5. *Department of the Army Information Security Program*. 25 February 1988.

*This source was also used to develop this publication.

AR 380-19. *Information Systems Security*. 27 February 1998.
AR 380-67. *The Department of the Army Personnel Security Program.* 9 September 1988.
AR 381-12. *Subversion and Espionage Directed Against the US Army* (*SAEDA*). 15 January 1993.
AR 385-10. *The Army Safety Program*. 23 May 1988. (Change 1, 29 February 2000.)
AR 385-40. *Accident Reporting and Records*. 1 November 1994.
AR 385-55. *Prevention of Motor Vehicle Accidents*. 12 March 1987.
AR 530-1. *Operations Security* (*OPSEC*). 3 March 1995.
AR 600-8-14. *Identification Cards for Members of the Uniformed Services, Their Family Members, and other Eligible Personnel.* AF 36-3026(I); BUPERS I 1750.10A; MCO P5512.1B; CGM5512.1; Manual 29.2, Instructions 1 and 2. 1 March 1998. (Change 1, 10 August 1998.)
AR 600-110. *Identification, Surveillance, and Administration of Personnel Infected with Human Immunodeficiency Virus* (*HIV*). 22 April 1994. (Change 1, 1 June 1996.)
AR 601-142. *Army Medical Department Professional Filler System*. 1 March 1995.
AR 710-2. *Inventory Management Supply Policy Below the Wholesale Level*. 31 October 1997.

Department of the Army Pamphlets

DA Pam 40-501. *Hearing Conservation Program*. 10 December 1998.
DA Pam 738-750. *Functional Users Manual for The Army Maintenance Management System* (*TAMMS*). 1 August 1994.

Defense Logistics Agency Catalog

*C-8900-SL. *Federal Supply Catalog: Stock List, Federal Supply Classification Group 89, Subsistence*. 1 January 1995.

Field Manuals

FM 8-10-6 (4-02.2). *Medical Evacuation in a Theater of Operations—Tactics, Techniques, and Procedures*. 14 April 2000.
FM 8-10-7 (4-02.7). *Health Service Support in a Nuclear, Biological, and Chemical Environment*. 22 April 1993. (Change 1, 26 November 1996.)
FM 8-10-8 (4-02.8). *Medical Intelligence in a Theater of Operations*. 7 July 1989.
FM 8-10-9 (4-02.9). *Combat Health Logistics in a Theater of Operations—Tactics, Techniques, and Procedures*. 3 October 1995.
FM 8-10-14 (4-02.14). *Employment of the Combat Support Hospital—Tactics, Techniques, and Procedures*. 29 December 1994.
FM 8-10-15 (4-02.15). *Employment of the Field and General Hospitals—Tactics, Techniques, and Procedures*. 26 March 1997.
FM 8-10-18 (4-02.18). *Veterinary Service—Tactics, Techniques, and Procedures*. 22 August 1997.
FM 8-10-19 (4-02.19). *Dental Service Support in a Theater of Operations*. 12 May 1993.
FM 4-02.24 (8-10-24). *Area Support Medical Battalion—Tactics, Techniques, and Procedures*. 28 August 2000.

FM 8-10-25 (4-02.25). *Employment of Forward Surgical Teams*. 30 September 1997.
FM 8-10-26 (4-02.26). *Employment of the Medical Company* (*Air Ambulance*). 16 February 1999.
FM 8-42 (4-02.42). *Combat Health Support in Stability Operations and Support Operations*. 27 October 1997.
FM 8-51 (4-02.51). *Combat Stress Control in a Theater of Operations—Tactics, Techniques, and Procedures*. 29 September 1994. (Change 1, 30 January 1998.)
FM 8-55 (4-02.55). *Planning for Health Service Support*. 9 September 1994.
FM 8-505 (4-02.56). *Army Medical Field Feeding Operations*. 10 November 1989.
*FM 10-23. *Basic Doctrine for Army Field Feeding and Class I Operations Management.* 18 April 1996.
*FM 10-52. *Water Supply in Theaters of Operations*. 11 July 1990.
FM 11-43. *The Signal Leader's Guide*. 12 June 1995.
FM 11-45. *Signal Support to Theater Operations*. 30 June 1999.
FM 19-4. *Military Police Battlefield Circulation Control, Area Security, and Enemy Prisoner of War Operations*. 7 May 1993.
FM 19-30. *Physical Security*. 1 March 1979.
FM 19-40. *Enemy Prisoners of War, Civilian Internees and Detained Persons*. 27 February 1976.
FM 21-10-1 (4-25.12). *Unit Field Sanitation Team*. 11 October 1989.
FM 22-51 (4-02.22). *Leaders' Manual for Combat Stress Control.* 29 September 1994.
FM 34-130. *Intelligence Preparation of the Battlefield*. 8 July 1994.
FM 55-30. *Army Motor Transport Units and Operations*. 27 June 1997. (Change 1, 15 September 1999.)
FM 100-5. *Operations*. 14 June 1993.
FM 100-10. *Combat Service Support*. 30 October 1995.
FM 100-10-2. *Contracting Support on the Battlefield*. 4 August 1999.
FM 100-14. *Risk Management*. 23 April 1998.
FM 100-21. *Contractors on the Battlefield.* 26 March 2000.
FM 101-5. *Staff Organization and Operations*. 31 May 1997.

Technical Bulletin Medical

TB Med 521. *Management and Control of Diagnostic X-Ray, Therapeutic X-Ray, and Gamma-Beam Equipment*. 15 June 1981.

Draft Equipment Publication

*DEP 10-5410-283-14&P. *Operator Maintenance Manual—Chemically Protected Deployable Medical System*. 14 May 1999. This draft publication is available by contacting: Chief, Soldier and Biological Chemical Command (RI), ATTN: AMSSB-RSO-CPT, Rock Island, IL 61299-7390.

Training Circular

*TC 8-13. *Deployable Medical Systems—Tactics, Techniques, and Procedures*. 7 December 1990.

Department of the Army Forms

DA Form 17. *Requisition for Publications and Blank Forms*. 1 October 1979. (This form is for local use only. Do not use for requisitions to US Army Publications.)
DA Form 581. *Request for Issue and Turn-In of Ammunition*. July 1999.
DA Form 1379. *US Army Reserve Components Unit Record of Reserve Training*. 1 December 1977.
DA Form 1687. *Notice of Delegation of Authority-Receipt for Supplies*. January 1982.
DA Form 2406. *Materiel Condition Status Report*. April 1993.
DA Form 2940-R. *Unit Loading Inventory and Checklist* (*Worksheet*). December 1975.
DA Form 3161. *Request for Issue or Turn-in*. May 1983.
DA Form 3444. *Terminal Digit File for Treatment Record* (*Orange*). May 1991.
DA Form 3955. *Change of Address and Directory Card*. May 1991.
DA Form 8005. *Outpatient Medical Record* (*OMR*) (*Orange*). November 1991.
DA Form 8007-R. *Individual Medical History* (*LRA*). November 1996.

Department of Defense Forms

DD Form 1265. *Request for Convoy Clearance*. 1 January 1959.
DD Form 1266. *Request for Special Hauling Permit*. 1 January 1959.
DD Form 1380. *US Field Medical Card*. December 1991.
DD Form 1384. *Transportation Control and Movement Document*. 1 April 1966.
DD Form 1387-2. *Special Handling Data Certification*. June 1986.
DD Form 1750. *Packing List*. September 1970.
DD Form 1934. *Geneva Conventions Identity Card for Medical and Religious Personnel Who Serve In or Accompany the Armed Forces*. July 1974.

Standard Forms

SF 558. *Medical Record—Emergency Care and Treatment*. September 1996.
SF 600. *Health Record—Chronological Record of Medical Care*. June 1987.
SF 603. *Health Record—Dental*. October 1975.
SF 707. *Secret Label for ADP Media*. January 1987.
SF 710. *Unclassified Label for ADP Media*. January 1987.

READINGS RECOMMENDED

These readings contain relevant supplemental information.

Joint and Multiservice Publications

AR 27-50. *Status of Forces Policies, Procedures, and Information.* SECNAVINST 5820.4G. 15 December 1989.

AR 40-350. *Patient Regulating To and Within the Continental United States.* AFR 168-11; BUMEDINST 6320.1E; PHS CCPM 60; COMDTINST M6320.8B; NOAAR 56-52C. 30 March 1990.
AR 40-538. *Property Management During Patient Evacuation*. BUMEDINST 6700.2B; AFR 167-5. 1 June 1980.
AR 40-562. *Immunizations and Chemoprophylaxis*. AFJI 48-110; BUMEDINST 6230.15; CG COMDTINST M6230.4E. 1 November 1995.
FM 3-3. *Chemical and Biological Contamination Avoidance*. FMFM 11-17. 16 November 1992. (Change 1, 29 September 1994.)
FM 3-3-1. *Nuclear Contamination Avoidance*. FMFM 11-18. 9 September 1994.
FM 3-4. *NBC Protection*. FMFM 11-9. 29 May 1992. (Change 2, 21 February 1996.)
FM 3-100. *Chemical Operations—Principles and Fundamentals*. MCWP 3-3.7.1. 8 May 1996.
FM 8-9 (4-02.11). *NATO Handbook on the Medical Aspect of NBC Defensive Operations AMEDP-6(B)*. NAVMED P-5059; AFJMAN 44-151V1V2V3. 1 February 1996.
FM 8-285 (4-02.285). *Treatment of Chemical Agent Casualties and Conventional Military Chemical Injuries*. NAVMED P-5041; AFJMAN 44-149; FMFM 11-11. 22 December 1995.
FM 90-3. *Desert Operations*. FMFM 7-27. 24 August 1993.
TB Med 507. *Occupational and Environmental Health Prevention, Treatment, and Control of Heat Injury.* NAVMED P-5052-5; AFP 160-1. 25 July 1980.

Army Publications

AR 5-9. *Area Support Responsibilities*. 16 October 1998.
AR 40-2. *Army Medical Treatment Facilities: General Administration*. 3 March 1978. (Reprinted with basic including Changes 1—2, 15 March 1983.)
AR 40-3. *Medical, Dental, and Veterinary Care*. 30 July 1999.
AR 40-4. *Army Medical Department Facilities/Activities*. 1 January 1980.
AR 40-35. *Preventive Dentistry*. 26 March 1989.
AR 40-48. *Nonphysician Health Care Providers*. 1 August 1995.
AR 40-61. *Medical Logistics Policies and Procedures*. 25 January 1995.
AR 40-400. *Patient Administration*. 1 October 1983.
AR 200-1. *Environmental Protection and Enhancement*. 21 February 1997.
AR 310-25. *Dictionary of United States Army Terms* (*Short Title: AD*). 15 October 1983. (Reprinted with basic including Change 1, 21 May 1986.)
AR 380-40. (O) *Policy for Safeguarding and Controlling Communications Security* (*COMSEC*) *Material* (U). 1 September 1994.
AR 750-1. *Army Materiel Maintenance Policy and Retail Maintenance Operations*. 1 August 1994. (Change 1, 1 July 1996.)
ARTEP 8-705-MTP. *Mission Training Plan for the Combat Support Hospital*. 3 October 1995.
DA Pam 710-2-1. *Using Unit Supply System* (*Manual Procedures*). 31 December 1997.
DA Pam 710-2-2. *Supply Support Activity Supply System: Manual Procedures*. 30 September 1998.
FM 8-50 (4-02.50). *Prevention and Medical Management of Laser Injuries*. 8 August 1990.
FM 10-27-4. *Organizational Supply and Services for Unit Leaders.* 14 April 2000.
FM 22-9. *Soldier Performance in Continuous Operations*. 12 December 1991.
FM 25-100. *Training the Force*. 15 November 1988.

FM 27-10. *The Law of Land Warfare*. 18 July 1956. (Reprinted with basic including Change 1, 15 July 1976.)
FM 31-70. *Basic Cold Weather Manual*. 12 April 1968. (Reprinted with basic including Change 1, 17 December 1968.)
FM 41-10. *Civil Affairs Operations*. 14 February 2000.
FM 63-3. *Corps Support Command*. 30 September 1993.
FM 100-9. *Reconstitution*. 13 January 1992.
FM 100-15. *Corps Operations*. 29 October 1996.
FM 101-5-1. *Operational Terms and Symbols*. MCRP 5-2A. 30 September 1997.
SB 8-75 (Series). *Army Medical Department Supply Information*.

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By Order of the Secretary of the Army:

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