

**FM 8-10-9**

**COMBAT HEALTH  
LOGISTICS  
IN A THEATER OF  
OPERATIONS**

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**TACTICS, TECHNIQUES, AND PROCEDURES**

**HEADQUARTERS, DEPARTMENT OF THE ARMY**

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**COMBAT HEALTH LOGISTICS IN A THEATER OF OPERATIONS  
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## PREFACE

This publication sets forth tactics, techniques, and procedures for the combat health logistics system (CHLS) in a theater of operations (TO). It embodies doctrine based on Medical Force 2000 (MF2K). It is designed for use by combat health logisticians and medical commanders and staffs; combat service support (CSS) commanders and their staffs; and logisticians of other military Services.

The organizational structures presented in this publication reflect those established in the living table(s) of organization and equipment (LTOE) in effect as of this publication date.

The proponent of this publication is the United States (US) Army Medical Department Center and School (AMEDDC&S). Send comments and recommendations on Department of the Army (DA) Form 2028 (or facsimile) directly to **Commander, AMEDDC&S, ATTN: MCCS-FCD-L, Fort Sam Houston, Texas 78234-6175**.

This publication implements the following North Atlantic Treaty Organization (NATO) International Standardization Agreements (STANAGs) and American, British, Canadian, and Australian (ABCA) Quadripartite Standardization Agreements (QSTAGs):

NATO STANAG	ABCA QSTAG	TITLE
	815	Blood Supply in the Area of Operations
2068 Med	322	Emergency War Surgery (Edition 4) (Amendment 3)
2961		Classes of Supply for NATO Land Forces

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

## CHAPTER 1

## INTRODUCTION TO COMBAT HEALTH LOGISTICS

**1-1. General**

This chapter provides an overview of the combat health support (CHS) system and the functional area of combat health logistics. It provides the basis to enhance the understanding of the remaining chapters of this publication which are devoted to the CHLS.

**1-2. Scope of Combat Health Support Operations**

a. Today's Army must focus on preventing aggression through strength with a smaller force primarily based in the continental United States (CONUS). Future battlefields will be established based upon regional conflicts, most likely in areas where there are not forward deployed US Forces. Combat health support assets of the Army Medical Department (AMEDD) must be tailorable for specific missions to support the Army's role of *force projection* in deterring the threat of global war and future uncertainties.

b. Combat health support will be required for US military forces in three diverse environments—

(1) *Peacetime*. In this environment, the US attempts to influence world events through actions which routinely occur between nations. Use of Army forces in peacetime helps keep the day-to-day tensions between nations below the threshold of conflict. The execution of military operations will be consistent with the peacetime limitations imposed by legislation, departmental policy or regulations, budgetary considerations, local conditions, and other specific conditions prescribed by the Secretary of Defense (SECDEF) or the Chairman of the Joint Chiefs of Staff. Typical peacetime operations include, but are not limited to—

- Disaster relief.
- Nation assistance.
- Security and advisory assistance.
- Counterdrug operations.
- Arms control.
- Support to domestic civil authorities.
- Peacekeeping.
- Humanitarian assistance and disaster relief.
- Noncombatant evacuation.

(2) *Conflict*. This type of environment is characterized by confrontation and the need to engage in hostilities short of war to secure strategic objectives. Operations are normally undertaken to avert crisis after a catastrophic event or in support of diplomatic initiatives.

**NOTE**

The Army classifies its activities during peacetime and conflict as *operations other than war* (OOTW).

(3) *War*. This is the most violent and high-risk environment with its associated combat operations. This environment may be further referred to as three levels—strategic, operational, and tactical.

For a detailed discussion on military operations, refer to Field Manual (FM) 100-5.

c. Current military operations have the potential to occur in a nuclear, biological, and chemical (NBC) or directed-energy (DE) environment. Although US policy does not condone the use of NBC weaponry, preparedness to operate in this type of environment negates many possible advantages for an enemy to employ those weapons. To be prepared is, in itself, a deterrent to their use. Combat health logisticians must consider and plan for NBC operations. Detailed information on providing NBC protection can be found in FM 3-3, FM 3-4, FM 3-5, and FM 8-10-7.

### 1-3. Medical Threat and Medical Intelligence

a. A major threat to US Forces deployed outside CONUS (OCONUS) manifests itself in the form of a medical threat. A medical threat is defined as the composite of all ongoing or potential enemy actions and environmental conditions that may render a soldier combat ineffective. The soldier's reduced effectiveness results from sustained wounds, injuries, stress-induced performance deterioration, or diseases. The elements of the medical threat include, but are not limited to—

- Diseases endemic to the area of operations (AO).
- Environmental factors (heat, cold, humidity, and significant elevations above sea level).
- Battle injuries from conventional, NBC, and DE weapons/devices.
- The level of compliance with the law of war and the Geneva Conventions requirements regarding "respect and protection" of medical personnel and medical facilities and transportation means.

1-2

● Physiologic and psychological stressors.

b. Medical intelligence is concerned with one or more of the medical aspects of foreign nations or AO and is significant to medical planning. Developing medical intelligence involves collecting, evaluating, analyzing, and interpreting foreign civilian and military medical, bioscientific, and environmental information. Until medical information is appropriately processed (ordinarily on a national level by the Armed Forces Medical Intelligence Center [AFMIC]), it is not considered to be medical intelligence.

c. For a more detailed discussion of medical threat elements, refer to FM 8-10, FM 8-10-8, and FM 8-42.

**Paragraphs 1-4 and 1-5 implement STANAG 2088 Med and QSTAG 322.**

### 1-4. Combat Health Support

a. Combat health support is an integral part of the CSS community. It plays a vital role in the protection of combat troops and enhances combat power. The basic CHS mission is to conserve the fighting strength. The mission objectives are to reduce the incidence of disease and nonbattle injuries (DNBI) through sound preventive medicine (PVNTMED) programs; to provide care and treatment for acute illnesses, injuries, and wounds; to evacuate patients to the appropriate medical treatment facility (MTF) commensurate with the requisite care; and to return soldiers to duty. Combat health support is employed to provide the most benefit to the maximum number of personnel.



*b.* Combat health support is modular in design and provides a continuum of care, from the point of injury through successive echelons of care, to definitive and rehabilitative hospitals in the CONUS sustaining base (Figure 1-1). It encompasses separate functions integrated into a single system providing CHS throughout the spectrum of military operations. These CHS functions are—

- Patient evacuation and medical regulating.
- Hospitalization.
- Combat health logistics, to include blood management.
- Dental services.
- Veterinary services.
- Preventive medicine services.
- Combat stress control (CSC) services.
- Area medical support.
- Command, control, communications, computers, and intelligence (C4I).
- Medical laboratory services.

*c.* Combat health support battlefield rules have been established by the AMEDD for use as guidelines in the development of appropriate medical organizations and force structure. These rules are to—

- Maintain medical presence with the soldier.
- Maintain the health of the command.

- Save lives.
- Clear the battlefield.
- Provide state-of-the-art care.
- Return soldiers to duty as early as possible.

## 1-5. Modular Medical Support

*a.* Combat health support in the division is provided by a modular medical support system that standardizes all medical subelements. The CHS modular design enables the CHS resources manager to rapidly tailor, augment, reinforce, or reconstitute the CHS units as needed. This system is designed to acquire, receive, and triage patients, and to provide emergency medical treatment (EMT) and advanced trauma management (ATM). Combat health support originates in the forward areas (divisions) with the combat medic (aidman). From this point, the patient is evacuated to the battalion medical platoon or section treatment squad (battalion aid station [BAS]), and then to the medical company treatment platoon (division clearing station).

*b.* Modular medical support is built around six modules. These modules are oriented to casualty collection, treatment, and return to duty (RTD) or evacuation.

(1) *Combat medic.* The combat medic module consists of one combat medical specialist and the prescribed load of medical supplies and equipment. Combat medics are organic to the medical platoons or sections of combat and combat support (CS) battalions and are attached to the companies of the battalions.

(2) *Ambulance squad.* An ambulance squad is comprised of four medical specialists

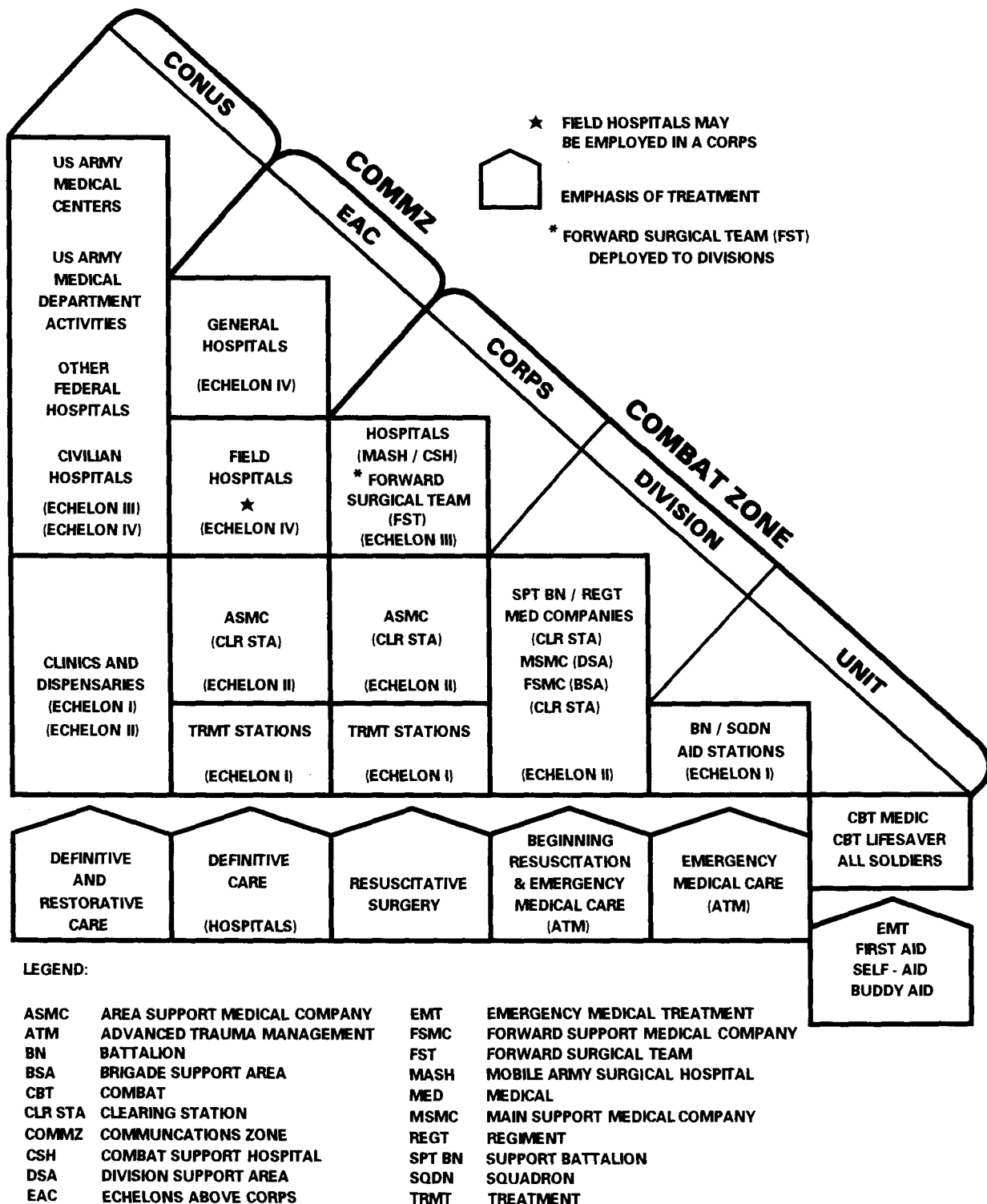


Figure 1-1. Echelons of combat health support.

and two ambulances. This squad provides patient evacuation throughout the division (and/or corps and communications zone [COMMZ]) and en route medical care. Ambulance squads are organic to the medical platoons or sections in maneuver battalions and division/nondivisional medical companies and the area support medical battalions (ASMBs). Medical company ambulance squads are employed in the brigade support area (BSA), division support area (DSA), corps support area (CSA), and in all areas of the COMMZ. The medical platoon's ambulance squads may be collocated with the companies of the maneuver battalions.

(3) *Treatment squad.* This squad consists of a primary care physician, a physician assistant (PA), and six medical specialists. The squad is trained and equipped to provide ATM to the battlefield casualty. Advanced trauma management is physician- or PA-directed emergency medical care designed to resuscitate and stabilize the patient for evacuation to the next echelon of medical care, or to treat and RTD. Advanced trauma management provides maximum benefit if received within 60 minutes of injury. To maintain contact with the combat maneuver elements, each squad has two emergency treatment vehicles equipped with trauma treatment medical equipment sets (MESs). Each squad can split into two treatment teams. These squads are organic to medical platoons or sections in maneuver battalions and designated CS units, as well as being the basic building block of the medical companies.

(4) *Area support squad.* This squad is comprised of one Dental Corps officer, a dental specialist, an x-ray specialist, and a medical laboratory specialist. The squad is organic to the medical companies of separate brigades, divisions, and area support medical companies (ASMCs) in the corps and COMMZ. The dental officer is ATM-trained and provides additional treatment capabilities to the clearing station during heavy patient loads.

(5) *Patient-holding squad.* This squad consists of two practical nurses and two medical specialists. It is capable of holding and providing minimal care for up to 40 (20 in the light infantry division) RTD patients. This squad is organic to the medical companies of separate brigades, divisions, armored cavalry regiments (ACRs), and in the ASMCs.

#### NOTE

When a treatment squad, an area support squad, and a patient-holding squad are collocated, they form an area support section (clearing station). This section provides CHS on an area basis to all forces within a geographical area(s) of responsibility (AOR). The area support section normally operates in the BSA, DSA, and areas of high troop concentration in the CSA and COMMZ. The area support and patient-holding squads are incapable of independent operations.

(6) *Medical detachment (surgical) and surgical squad.* The medical detachment (surgical) is a corps asset and is an augmentation to Echelon II CHS. It deploys as far forward as necessary to support division/task-force operations. This detachment must collocate with a patient-holding squad for support. Each airborne and air assault division has two surgical squads which are organic to the main support medical company (MSMC) of the main support battalion (MSB). Both the corps medical detachment (surgical) and surgical squads organic to the airborne and air assault divisions have the same basic design. They are comprised of two surgeons, two nurse anesthetists, two operating room specialists, one medical/surgical nurse, and two practical nurses. They are organized to provide early resuscitative surgery for seriously wounded

or injured patients, to save lives, and to preserve physical function. Early surgery is performed whenever a likely delay in the evacuation of a patient threatens life or the quality of recovery. Postsurgical patients awaiting evacuation are held by the patient-holding squad with nursing care provided by the nurses of the surgical module. The task-force medical detachment (surgical) and organic surgical squads will normally be employed in the DSA, but may be employed in the BSA during task-force operations. Normally, the medical detachment (surgical) is attached to a treatment platoon and collocated with the division clearing station or possibly an ASMC.

(7) *Forward surgical team.* A forward surgical team (FST) will replace the two surgical squads in each of the following: the airborne division; the air assault division; and the 2d ACR. The FSTs will also replace the medical detachment (surgical) and the 30-bed mobile army surgical hospital (MASH). This team will be a corps augmentation for divisional and non-divisional medical companies. It will provide emergency/urgent initial surgery and nursing care after surgery for the critically wounded/injured patients until they are sufficiently stable for evacuation to a theater hospital. The FSTs not organic to divisions and the 2d ACR will be assigned to a medical brigade or group and normally attached to a corps hospital when not operationally employed and further attached for support to a divisional/nondivisional medical company.

## 1-6. Combat Health Logistics System

a. The Office of the Deputy Chief of Staff for Logistics (ODCSLOG) is the proponent office for all Army logistics policy. The Office of The Surgeon General (OTSG) and appropriate other medical command authorities manage and

direct combat health logistics (Class VIII). The Logistics Division, OTSG, has primary staff responsibility for developing policies and procedures and providing guidance in the area of medical materiel management. The US Army Medical Materiel Agency (USAMMA) is under control of the US Army Medical Research and Materiel Command. It has the mission of assisting The Surgeon General in the execution of his responsibilities for the management of medical materiel programs in support of Armywide combat health logistics.

b. The Class VIII supply system basically follows the requirements of Army Regulation (AR) 700-Series with exceptions provided in AR 40-61. The policies and procedures covered in AR 40-61 are unique to medical materiel and operations which are subject to regulations and standards of the Food and Drug Administration, the Environmental Protection Agency, the Drug Enforcement Agency, and the Joint Commission on Accreditation of Healthcare Organizations. Additionally, Class VIII supplies and equipment are afforded protective status under the provisions of the Geneva Conventions (see FM 8-10).

c. Logistics support may be executed by strategic, operational, or tactical logistics systems. These three levels of logistics support correlate to the three levels of war (FM 100-5).

(1) The strategic logistics system supports the attainment of broad goals and objectives established by the National Command Authorities in national security policies. It includes special activities under DA control and the national inventory control points (NICPs); national maintenance points; and depots, arsenals, data banks, plants, and factories associated with the US Army Materiel Command. Strategic functions are performed in CONUS and in the rear of the theater. See Appendix A for Class VIII strategic logistics.

(2) Operational logistics support the commander's plan in either a mature or immature theater. Operational logistics link strategic logistics to tactical logistics on the battlefield, ensuring support and success at the tactical level. Operational support attempts to balance the strategic planning requirements with the needs of tactical operations in joint and combined campaigns, major operations, and other military operations within an AO. Operational logistics are conducted by echelons above corps (EAC) and corps and below organizations to support tactical logistics. Chapters 2 through 6 discuss Class VIII support and support organizations at the operational and tactical levels.

(3) Tactical logistics include activities necessary to support military operations. At this level, the essential functions of supply, maintenance, transportation, technical assistance, personnel services support, CHS, and field services are delivered to soldiers to permit them to accomplish their mission. The AMEDD logistician focuses on Class VIII support to sustain the soldier.

*d.* The CHLS encompasses functional areas which are all tied together as a subsystem of the multifunctional CHS system. Combat health logistics is characterized by goals, policies, procedures, and organizational structures and is directly related to the overall CHS system. It interfaces as a facilitating-type subsystem responsive first and foremost to patient care and secondly to the Army's logistical system. The functional areas include—

- Materiel management (receiving, shipping, storage, and property accounting).
- Medical equipment maintenance and repair support.
- Prescription optical lens fabrication.

- Blood storage and distribution.

*e.* Basic to any logistical plan are the principles of anticipated user needs and continued support. These principles imply that the individual directing this support have a thorough knowledge of the system being supported, as well as an understanding of how and why the particular item being supplied is used. Combat health logistics cannot operate on the basis of historical data alone. Many external factors—the judgment of the physician, environmental factors, and the peculiarities of the patient's condition—affect the demands for an item. The nonavailability of certain pieces of equipment or supply items can cause an interruption in the CHS being provided.

### 1-7. General Principles of Combat Health support

There are six general principles of CHS. The logistician needs to understand these principles and apply them in daily operations and planning procedures. The principles are—

*a. Conformity.* Conformity with the tactical plan is the most basic element for effectively providing CHS. By participating in the development of the commander's plan of operation, the CHS planner can—

- Determine requirements.
- Plan the support needed to conform to tactical operations.

Combat health logistics, as an integral part of CHS, must conform to the tactical plan, and CHS materiel personnel must be an integral part of that planning process.

*b. Proximity.* Combat health support must be provided to sick, injured, and wounded

soldiers at the right place to keep morbidity and mortality to the minimum. There is a fine line between too close and not close enough. The CHS resources are employed as close to the area of combat operations as the tactical situation will permit. Medical supplies and blood need to be moved as far forward as possible. Patients are evacuated to the MTF, or the MTF is moved to the area where the patient population is the greatest without interfering with combat operations or jeopardizing treatment capability.

*c. Flexibility.* Combat health support commanders and planners must be prepared to relocate CHS resources to meet changing requirements. All CHS assets are used somewhere within the theater, none are held in reserve. Therefore, the commander has to make alternate plans for redistribution of CHS resources as required. The size and composition of medical units in support of military operations will be tailored based on—

- (1) Mission, enemy, terrain, troops and time available (METT-T).
- (2) Projected patient work loads.
- (3) Anticipated civic action programs.
- (4) Availability of evacuation assets.

(5) Theater evacuation policy.

*d. Mobility.* The mobility of medical units organic to maneuver elements should be equal to the forces being supported. Medical command and control (C<sup>2</sup>) headquarters in the TO must continually assess and forecast unit movement and redeployment. With the proper coordination for nonorganic as well as organic transportation resources, commanders can move medical units to best support military operations.

*e. Continuity.* Optimum care and treatment of the sick, injured, and wounded must be provided in an uninterrupted manner. Each echelon of CHS reflects an increase in capability; however, the function of each lower echelon is contained within the capabilities of all higher echelons. Continuity in care and treatment is achieved by moving the patient through a progressive, phased system, commensurate with the patient's medical requirement. No patient is evacuated any further to the rear than his physical condition or the military situation requires.

*f. Control.* Combat health support resources must remain under the control and supervision of the medical commander. This also ensures that the scope and quality of medical treatment and care meet professional standards and policies. The medical commander must be able to tailor CHS organizations to best support military operations.

## CHAPTER 2

## COMBAT HEALTH LOGISTICS

## Section I. COMBAT HEALTH LOGISTICS SYSTEM

**2-1. General**

This chapter introduces the CHLS mission and the combat health logistics organizations to accomplish that mission. It embodies doctrine based on MF2K and the LTOE of each organization.

**2-2. Mission**

The CHLS mission is to provide—

- Class VIII supplies and equipment (medical materiel, to include medical-peculiar repair parts).
- Optical fabrication.
- Medical equipment maintenance and repair.
- A Single Integrated Medical Logistics Manager (SIMLM) for joint operations (see Appendix B).
- Blood management for Army, joint, or combined operations.
- Contract support.

**2-3. Planning Combat Health Logistics**

*a.* To accomplish successful Class VIII support operations, the logistician must continually plan for the transition from OOTW to war. The combat health logisticians must possess a thorough knowledge of the theater environment, command and organizational structures, and the supporting operation plans (OPLANs). During the initial phase of mobilization/deployment, the

deployment of combat health logistics units later in the Time-Phased Force Deployment Data (TPFDD) flow can affect Class VIII support. To enhance combat health logistics, the logistics planner will—

- Identify specified and implied time-phased materiel requirements necessary to support the OPLAN.
- Identify the capabilities, limitations, and requirements of aerial and sea debarkation/embarkation ports.
- Provide coordinating and controlling cell for movement of personnel, supplies, and equipment.
- Identify pre-positioned war reserve stocks in the theater, at ports of embarkation, and pre-positioned stock afloat.
- Identify host-nation (HN) support, if available.
- Identify joint, combined, allied, or coalition logistics support requirements, to include the distribution plan.

*b.* The structure of a force projection operation may consist of any size force—from a battalion-sized organization to a larger-sized force consisting of multiple corps and a supporting EAC organization. It is imperative that the combat health logistician be involved in CHS planning. See Chapter 6, FM 8-55, for guidance on planning the combat health logistics plan and estimate, and Appendix C, this manual, for a format example of a tactical standing operating procedure (TSOP).

c. Combat health logisticians should anticipate reconstitution. Reconstitution is an extraordinary action used to restore units to a desired level of operational effectiveness commensurate with mission requirements and available resources. During concept development, reconstitution must be an integral part of the planning process. The medical logistics (MEDLOG) battalions will have the responsibility for reconstitution of medical units and medical assemblages with Class VIII materiel and equipment. Under emergency situations, the MEDLOG battalions may be tasked to provide replacement logistics equipment, such as materiel handling equipment and vehicle logistics/maintenance personnel, to forward medical units. It should be noted that this will degrade the mission capability of the MEDLOG battalions and should only be directed under emergency conditions. Nonmedical Class VII items and personnel replacements are provided to medical units requiring reconstitution by the appropriate managers. For more information on reconstitution, see FM 100-9.

## 2-4. Combat Health Logistics Structure

The CHLS is structured to provide the flexibility, mobility, and capability to support continuous operations and each increment of the deploying forces. It is tailored to support missions throughout the stages of military operations and across the operational continuum. The system is anticipatory and projects its support based on operational objectives. The organizational structure to support a TO consists of four types of units:

- Medical logistics battalions (forward).
- Medical logistics battalions (rear).
- Theater Medical Materiel Management Center (TMMMC).
- Medical logistics support detachments.

## Section II. COMBAT HEALTH LOGISTICS ORGANIZATIONS

### 2-5. General

This section discusses the theater's combat health logistics organizations and their organic elements. It also discusses their assignment, basis of allocation, capabilities, and concept of operations.

### 2-6. Medical Battalion, Logistics (Forward), Table of Organization and Equipment (TOE) 08485L000

a. *Mission.* The mission of this unit is to provide Class VIII supplies, single-vision optical fabrication, medical equipment maintenance support, and blood storage and distribution to divisional and nondivisional units operating in the supported corps. In selected scenarios,

this unit is augmented to perform Class VIII management functions of the TMMMC and may also assume the role of SIMLM for the theater.

b. *Assignment.* This unit is assigned to the corps under the C2 of the Medical Brigade, TOE 08442L000.

c. *Basis of Allocation.* One MEDLOG battalion (forward) is allocated per corps or three division equivalent-sized force. One additional MEDLOG battalion (forward) is allocated to support each additional increment of 100,000 joint service population.

d. *Capabilities.* This unit—

(1) Provides C2, staff planning, supervision of operations, and administration of



assigned or attached units engaged in providing Class VIII supplies, single-vision optical fabrication, medical equipment maintenance support, and blood processing, storage, and distribution.

(2) Provides Class VIII supplies based on a consumption rate of 1.9 pounds per man per day, a theater stockage objective of 30 days, and 15 days of supplies in each supported corps.

(3) Provides Class VIII supplies, single-vision optical fabrication, medical equipment maintenance support, and blood processing, storage, and distribution to a maximum force of a two to three division equivalent-sized corps.

(4) Receives, classifies, and issues up to 141.5 (maximum) short tons of Class VIII supplies per day. (This organization can support a corps force consisting of 74,470 soldiers based on its processing capability, consumption rate of 1.9 pounds per man per day, and the theater stockage objective. These factors may change based on a number of variables. However, the actual methodology explained in the example will remain the same.)

### EXAMPLE

A corps force consisting of 74,470 soldiers to be supported requires 70.75 short tons per day (74,470 troops x 1.9 pounds per man per day / 2000 pounds [to arrive at short tons]) to be issued to the force. The MEDLOG battalion (forward) is required to receive 70.75 short tons per day to replace the stock issued. The MEDLOG battalion (forward) would be at its limit to support the corps.

(5) Provides storage of up to 707.5 short tons of Class VIII supplies based on an average order ship time of 5 days.

### NOTE

Based on a 15-day stockage level in a corps with 5 days of that stockage level being order ship time, the operating and safety levels to be stored would be 10 days. Using the data in the note above, the unit stores 707.5 short tons (70.75 short ton per day x 10 days).

(6) Provides unit medical equipment maintenance for units without organic capability and direct support (DS) medical equipment maintenance to corps and division medical units.

(7) Provides for blood processing, storage, and distribution within the corps. Distributes blood products to division medical units.

*e. Concept of Operations.* This unit is the single point of contact for MEDLOG support for the corps. It should be located near major lines of communication (sea or air) to ease transportation requirements for incoming shipments and facilitate distribution of materiel. The modular nature of this unit allows it to be incrementally introduced in the theater with the supported forces. Forward support platoons (FSPs) of the distribution company should be deployed early to coordinate support to a division medical supply office (DMSO) and prepare to receive Army reserve stocks and resupply from CONUS.

(1) *Supply support.* Levels of supply at the MEDLOG battalion (forward) are kept to a minimum to permit relocation on a rapidly changing battlefield. Request for nonstocked items will be passed to the supporting supply source. This supporting supply source may be a MEDLOG battalion (rear) or the CONUS base. Corps transportation assets will normally be used to move the medical supplies forward to the divisions, separate brigades, ACRs, and Special Forces groups.

(2) *Medical equipment maintenance services.* The MEDLOG battalion (forward) provides medical equipment maintenance services to supported units in the corps. It provides unit-level maintenance to units in the corps without organic medical equipment repairers. It provides DS maintenance to medical units in the corps. This level of maintenance is directed toward repair and return of equipment. Maintenance support teams (MSTs) will provide these services as far forward as the tactical situation permits. The MEDLOG battalion (forward) maintains limited Medical Standby Equipment Program (MEDSTEP) items to support medical equipment maintenance repair programs.

(3) *Optical services.* Optical fabrication requirements beyond the capabilities of the MSMCs and the corps ASMBs are provided by the MEDLOG battalion (forward). This organization provides spectacle frame repair, fabrication of single-vision prescription lenses

and spectacles, and fabrication of protective mask inserts.

(4) *Blood processing, storage, and distribution.* The logistics support company, MEDLOG battalion (forward) receives, stores, packs for distribution, and distributes blood and blood products.

*f. Organic Units.* This organization has three organic units.

(1) Headquarters and headquarters detachment.

(2) Logistics support company (forward).

(3) Distribution company (forward).

See Figure 2-1 for an organizational diagram of the medical battalion, logistics (forward).

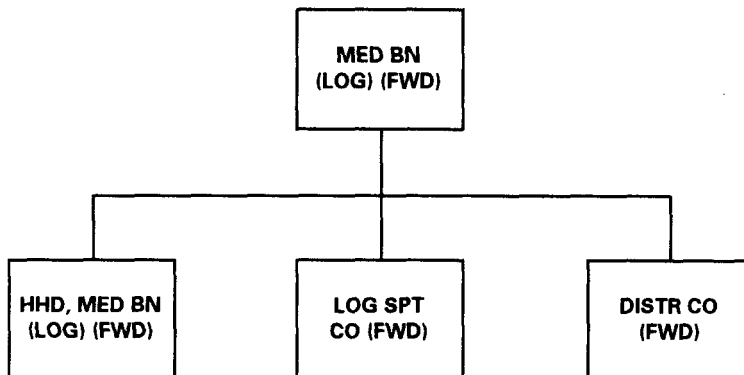


Figure 2-1. Medical battalion, logistics (forward).

**2-7. Headquarters and Headquarters Detachment, Medical Battalion, Logistics (Forward), TOE 08486L000**

*a. Mission.* The mission of this unit (Figure 2-2) is to provide C2 and administrative and logistics support to assigned and attached units.

*b. Basis of Allocation.* One unit is allocated per MEDLOG battalion (forward).

*c. Capabilities.* This unit—

(1) Provides C2, staff planning, supervision of operations, and administration of assigned or attached units.

(2) Provides unit maintenance for all medical equipment of assigned and attached units.

(3) Maintains a consolidated property book for assigned units.

(4) Coordinates with corps movement control center (MCC) for the routine delivery of Class VIII supplies.

(5) Coordinates with the medical battalion (evacuation) for transportation assets (aeromedical or ground ambulance) for the emergency delivery of Class VIII supplies.

*d. Concept of Operations.* This unit will normally be employed with the logistics support company to plan and direct the execution of the combat health logistics mission.

*e. Dependency.* This unit is dependent upon—

(1) Appropriate elements of the corps for unit CHS, supplemental transportation, finance, personnel and administrative services, religious and legal support, and technical intelligence for captured medical materiel.

(2) The Logistics Support Company, TOE 08487L000, for food service.

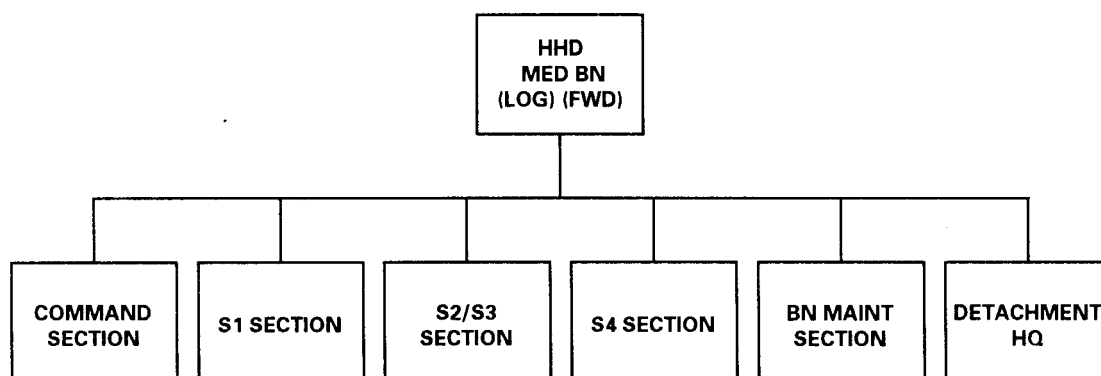


Figure 2-2. Headquarters and headquarters detachment, medical battalion, logistics (forward).

**2-8. Logistics Support Company, Medical Battalion, Logistics (Forward), TOE 08487L000**

a. *Mission.* The mission of this company (Figure 2-3) is to—

- Execute the planned support of the corps in the areas of Class VIII supplies, single-vision optical fabrication, medical equipment maintenance support, and blood processing, storage, and distribution.

- Be prepared to support medical units of other Services in the corps area, as directed.

b. *Basis of Allocation.* One logistics support company is allocated per MEDLOG battalion (forward).

c. *Capabilities.* This unit—

(1) Receives, classifies, and issues up to 119.5 short tons of Class VIII supplies per day.

(2) Provides storage for up to 1,486 short tons of Class VIII supplies.

(3) Receives and distributes pre-assembled modules (PUSH packages) for re-supply in support of divisional and nondivisional units in the supported corps.

(4) Provides unit medical equipment maintenance for units without organic capability and DS medical equipment maintenance through MSTs.

(5) Provides for blood processing, storage, and distribution within the corps.

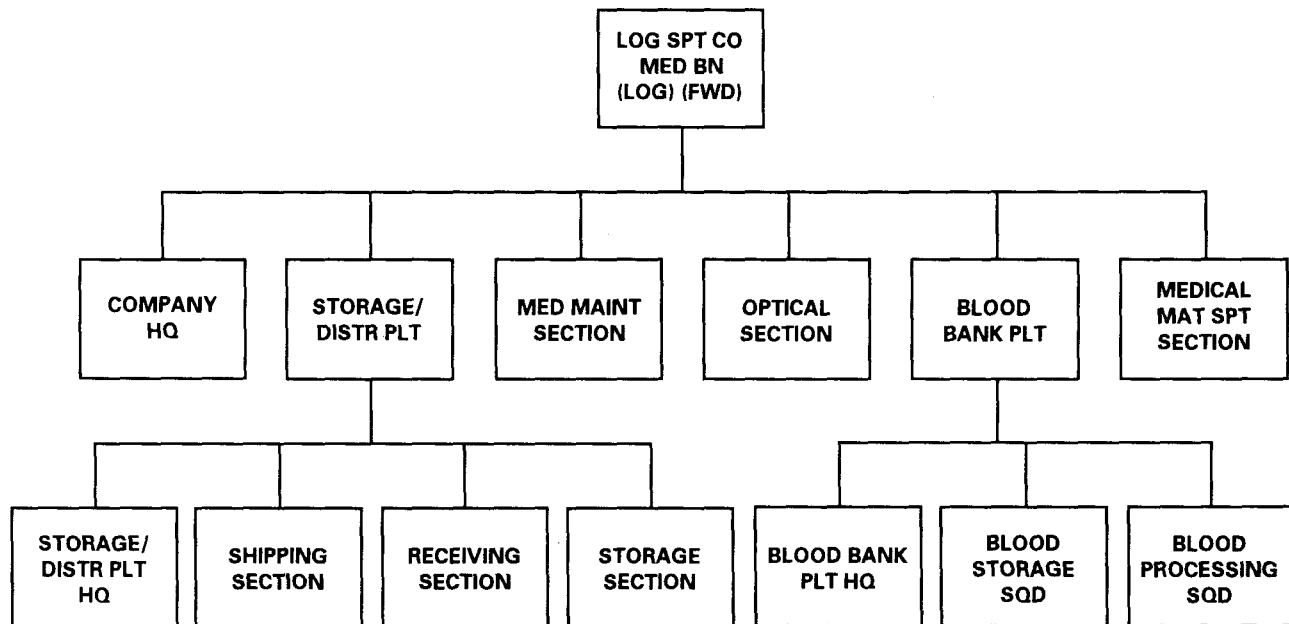


Figure 2-3. Logistics support company, medical battalion, logistics (forward).

Distributes blood products to divisional and non-divisional medical units.

(6) Provides single-vision lens fabrication.

(7) Provides food service support for the MEDLOG battalion (forward).

(8) Provides a base for reconstitution of the MEDLOG battalion, (forward).

*d. Concept of Operations.* This unit executes the MEDLOG mission as directed by the headquarters element.

*e. Dependency.* This unit is dependent upon—

(1) Appropriate elements of the corps for medical support; supplemental transportation; finance, personnel, and administrative

services; religious and legal support; and technical intelligence for captured medical materiel.

(2) The headquarters and headquarters detachment, MEDLOG battalion (forward), for unit maintenance on organic equipment.

**2-9. Distribution Company, Medical Battalion, Logistics (Forward), TOE 08488L000**

*a. Mission.* This company (Figure 2-4) provides Class VIII supply support to divisional and nondivisional medical units operating in the supported operational area, to include other Services' medical assets supporting that corps.

*b. Basis of Allocation.* One distribution company is allocated per MEDLOG battalion (forward).

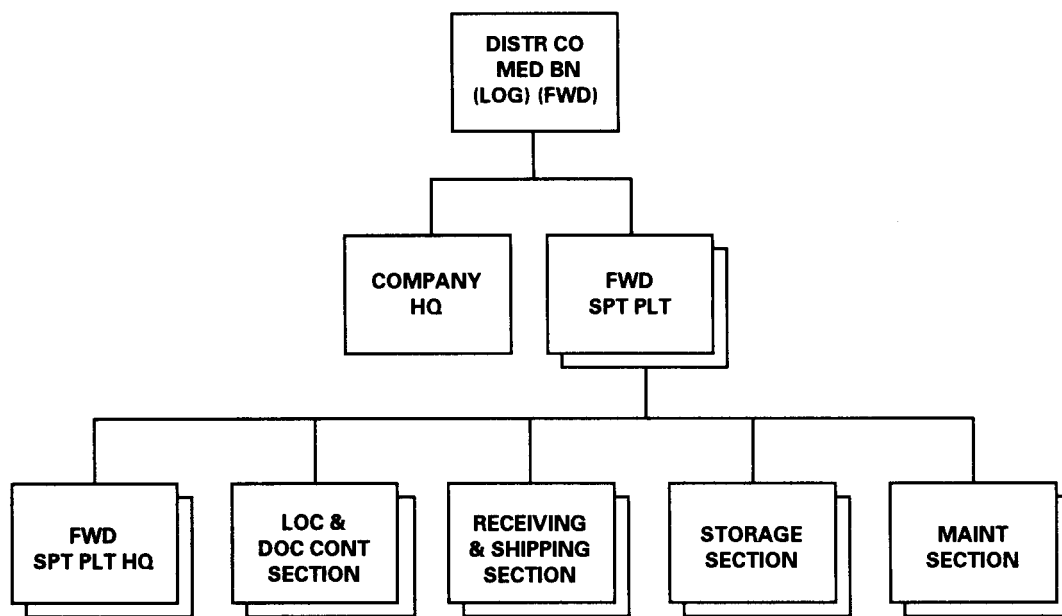


Figure 2-4. Distribution company, medical battalion, logistics (forward).

c. *Capabilities.* This unit—

(1) Receives, classifies, and issues up to 22 short tons of Class VIII supplies per day (11 short tons per platoon).

(2) Provides storage for up to 22 short tons of Class VIII supply (11 short tons per platoon).

(3) Provides, through MSTs, unit medical equipment maintenance to units not otherwise provided such support and limited DS medical equipment maintenance on an area basis.

(4) Provides modules for reconstitution of MEDLOG units at corps and division units.

(5) Employs two modular FSPs to provide Class VIII support on an area basis in the corps.

d. *Concept of Operations.* This unit employs a company headquarters and organic FSPs to provide Class VIII support on an area basis. This unit provides limited Class VIII supply support for high volume consumables and facilitates the support of DMSOs and corps forces deployed in the division AO. This unit provides unit medical equipment maintenance to units not otherwise provided support and has limited DS medical equipment maintenance service for units within its area.

e. *Dependency.* This unit is dependent upon—

(1) Appropriate elements of the corps for medical support; supplemental transportation; finance, personnel and administrative services; religious and legal support; and technical intelligence for captured medical materiel.

(2) The headquarters and headquarters detachment, MEDLOG battalion

(forward) for unit maintenance on nonmedical equipment.

(3) The Logistics Support Company, TOE 08487L000, for food service, when collocated. Food service support must be coordinated with supported units for an element operating independently.

## 2-10. Medical Battalion, Logistics (Rear), TOE 08695L000

a. *Mission.* The mission of this unit (Figure 2-5) is to provide Class VIII supplies and equipment, single-vision and multivision optical fabrication, medical equipment maintenance support, and blood processing, storage, and distribution to EAC units and the MEDLOG battalions (forward) for items not shipped directly to requester. This unit must be prepared to function as the SIMLM for a joint theater in conjunction with the TMMMC.

b. *Assignment.* This unit is assigned to the Medical Command (MEDCOM), TOE 08611L000.

c. *Basis of Allocation.* One MEDLOG battalion (rear) is allocated per three corps supported. One additional MEDLOG battalion (rear) is allocated to support each additional increment of 250,000 joint service population.

d. *Capabilities.* This unit—

(1) Provides C2, staff planning, supervision of operations, and administration of assigned or attached units engaged in providing Class VIII supply support.

(2) Provides Class VIII supplies based on a consumption rate of 1.9 pounds per man per day; theater stockage objective of 30 days; and 15 days of supplies in each supported corps.

(3) Provides Class VIII supply, single-vision and multivision optical fabrication, medical equipment maintenance support, blood processing, storage, and distribution to a maximum force of a three corps equivalent-sized force.

(4) Receives, classifies, and issues up to 384.8 (maximum) short tons of Class VIII supplies per day. (This unit can support a force consisting of 202,500 soldiers.)

#### EXAMPLE

A theater force consisting of 202,500 soldiers to be supported requires 192.4 short tons per day ( $202,500 \times 1.9/2000$  pounds) to be issued to the force. The MEDLOG battalion (rear) is also required to receive 192.4 short tons per day to replace the stock issued. The MEDLOG battalion (rear) would be at its limit to support this theater.

(5) Provides storage of up to 1725.5 short tons of Class VIII supplies based on an average order ship time of 10 days.

#### EXAMPLE

Based on a 15-day stockage level in a corps, a 30-day stockage level at theater, and 10 days of that stockage level being order ship time, the operating and safety levels to be stored would be 20 days. Using the data in the example above, the unit stores 1725.5 short tons ( $192.4 \text{ short tons per day} \times 20 \text{ days} [38481 - 3 \text{ corps} \times 707.5 \text{ short tons stored in each corps}] = 1725.5$ ).

(6) Provides unit medical equipment maintenance for EAC units without organic capability; DS medical equipment maintenance

to EAC units; and reinforcing support to corps MEDLOG battalions (forward).

(7) Provides general support (GS) medical equipment maintenance to the theater.

(8) Provides for blood processing, storage, and distribution within the EAC and added support to corps MEDLOG battalions (forward).

*e. Concept of Operations.* The MEDLOG battalion (rear) is the single point of contact for MEDLOG support for the theater providing support to both EAC units and MEDLOG battalions (forward). The MEDLOG battalion (rear) is normally located near major lines of communication (sea or air) to ease transportation requirements for incoming shipments and facilitate distribution of materiel.

(1) *Supply support.* Levels of supply at the MEDLOG battalion (rear) are greater to permit support of a rapidly changing battlefield. Requisitions from supported MEDLOG battalions (forward) that are not stocked in theater will normally be treated as passing actions by the supply source or supporting MEDLOG battalion. Resupply for EAC units and requests from MEDLOG battalion (forward) filled from on-hand stock will normally be distributed on a unit distribution basis using theater transportation assets.

(2) *Medical equipment maintenance services.* The MEDLOG battalion (rear) provides unit maintenance to those EAC units with medical equipment without organic capability. It also provides DS maintenance to EAC units. This unit provides GS medical equipment maintenance to the theater. Maintenance support teams will provide these services as far forward as the tactical situation permits. The MEDLOG battalion (rear) maintains an expanded MEDSTEP of critical items. Normally, an excessive maintenance backlog at any unit,

regardless of extent of repairs required, will be resolved by support from the next higher echelon, either by sending MSTs forward or by evacuation. In this regard, the MEDLOG battalion (rear) may expect to provide backup support to both the MEDLOG battalion (forward) and other EAC-supported units as required.

(3) *Optical services.* Optical fabrication requirements beyond the capabilities of the MEDLOG battalion (forward) and EAC treatment facilities are provided by the MEDLOG battalion (rear). This organization provides spectacle frame repair, single-vision and multivision optical fabrication, and fabrication of protective mask inserts.

(4) *Blood processing, storage, and distribution.* The logistics support company, MEDLOG battalion (rear) receives, stores, packs for distribution, and distributes blood and blood products.

f. *Organic Units.* This organization has three organic units.

(1) Headquarters and headquarters detachment.

(2) Logistics support company (rear).

(3) Distribution company (rear).

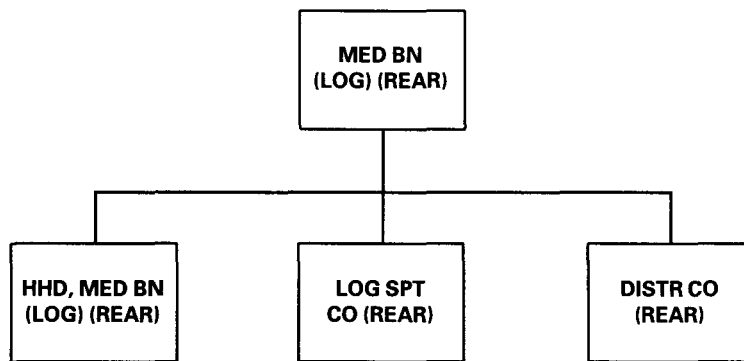


Figure 2-5. Medical battalion, logistics (rear).

**2-11. Headquarters and Headquarters Detachment, Medical Battalion, Logistics (Rear), TOE 08696L000**

a. *Mission.* The mission of this unit (Figure 2-6) is to provide C2 and administrative and logistics support to assigned and attached units.

b. *Basis of Allocation.* One headquarters and headquarters detachment is assigned per MEDLOG battalion (rear).

c. *Capabilities.* This unit—

(1) Provides C2, staff planning, supervision of operations, and administration of assigned or attached units.

(2) Provides unit maintenance for nonmedical equipment of assigned and attached units.

(3) Maintains a consolidated property book for assigned units.



(4) Coordinates with the theater MCC for the routine delivery of Class VIII supplies.

*d. Concept of Operations.* This unit will usually be employed with the logistics

support to plan and direct the execution of the combat health logistics mission.

*e. Dependency.* This unit is dependent on the Logistics Support Company, TOE 08697L000, for food service.

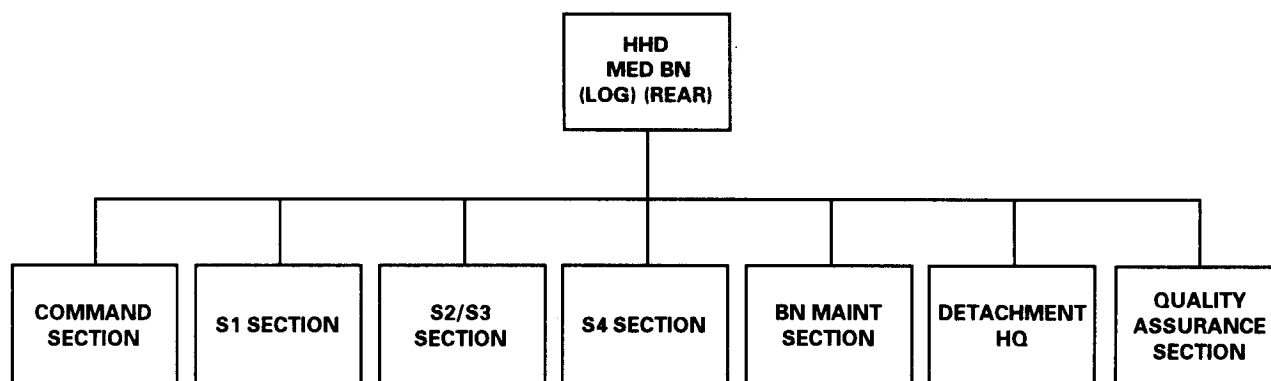


Figure 2-6. Headquarters and headquarters detachment, medical battalion, logistics (rear).

**2-12. Logistics Support Company, Medical Battalion, Logistics (Rear), TOE 08697L000**

*a. Mission.* The mission of this unit (Figure 2-7) is to—

- Execute the planned support of the theater in the areas of Class VIII supplies, optical fabrication, medical equipment maintenance support, and blood processing, storage, and distribution.

Be prepared to support medical units of other Services in the theater area, as directed.

*b. Basis of Allocation.* This unit is allocated on the basis of one per MEDLOG battalion (rear).

*c. Capabilities.* This organization—

(1) Receives, classifies, and issues up to 351.8 short tons of Class VIII supplies per day.

(2) Provides storage for up to 1692.5 short tons of Class VIII supply.

(3) Receives, assembles, and distributes preplanned modules (PUSH packages) for resupply in support of corps and EAC units in the theater.

(4) Provides single-vision and multivision lens fabrication.

(5) Provides unit medical equipment maintenance for EAC units without organic

capability; DS medical equipment maintenance to EAC units; and added support to corps MEDLOG battalions (forward).

(6) Provides GS medical equipment maintenance in the theater.

(7) Provides for blood processing, storage, and distribution within the EAC and added support to corps MEDLOG battalions (forward).

(8) Provides food service support for the MEDLOG battalion (rear).

d. Concept of Operation. This unit executes the MEDLOG mission as directed by the headquarters element.

e. Dependency. This unit is dependent on the Headquarters and Headquarters Detachment, Medical Battalion, Logistics (Rear), TOE 08696000, for unit maintenance on nonmedical equipment.

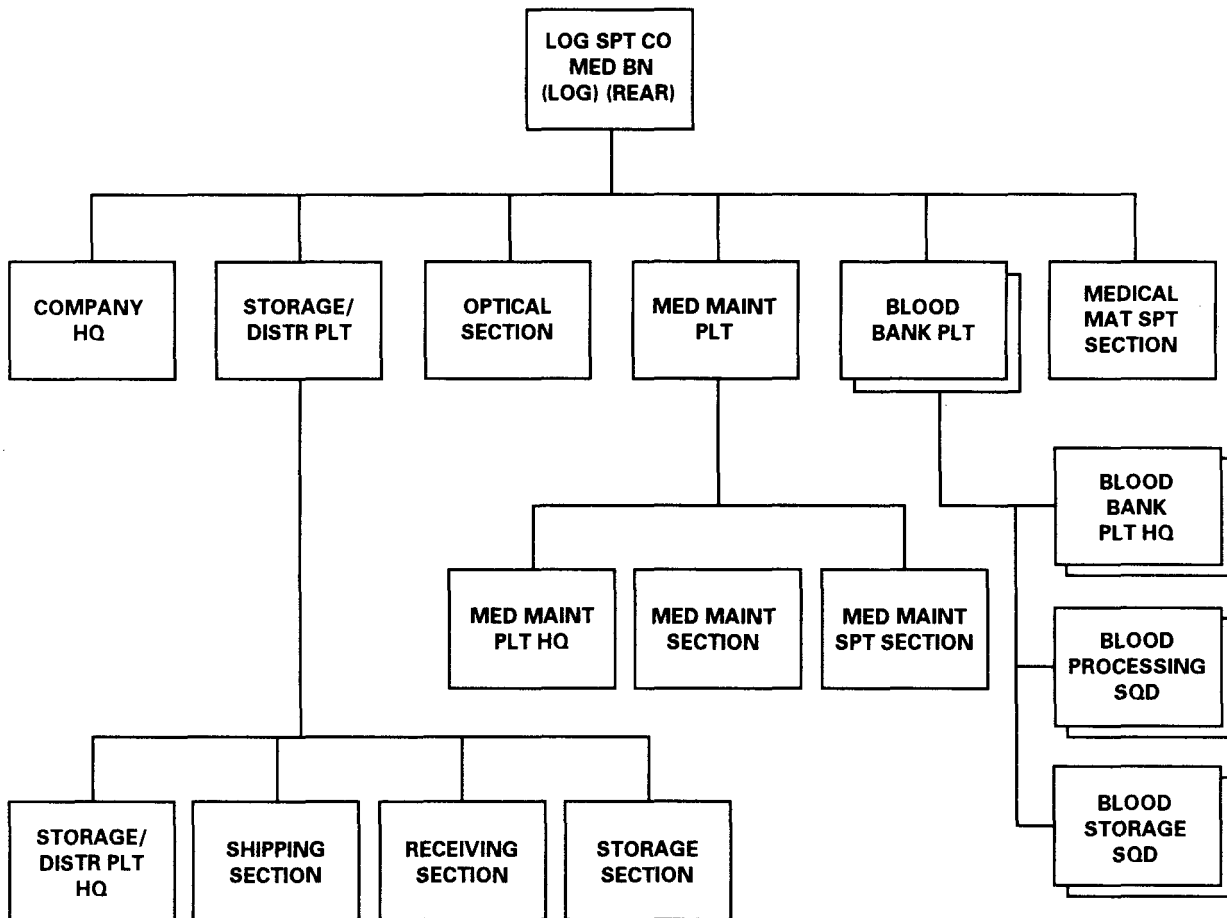


Figure 2-7. Logistics support company, medical battalion, logistics (rear).

**2-13. Distribution Company, Medical Battalion, Logistics (Rear), TOE 08698L000**

a. *Mission.* The mission of this unit (Figure 2-8) is to provide Class VIII supplies and medical equipment maintenance support to EAC units operating in the supported area.

b. *Basis of Allocation.* This unit is allocated on the basis of one per MEDLOG battalion (rear).

c. *Capabilities.* This unit—

(1) Receives, classifies, and issues up to 33 short tons of Class VIII supplies per day (16.5 short tons per platoon).

(2) Provides storage for up to 33 short tons of Class VIII supplies (16.5 short tons per platoon).

(3) Provides, through MSTs, unit medical equipment maintenance to units not otherwise provided such support and limited DS medical equipment maintenance on an area basis.

d. *Concept of Operations.* This unit employs a company headquarters and organic area support platoons to provide Class VIII support on an area basis in the theater. This unit provides limited Class VIII supply support for high-volume consumables and facilitates the support of EAC units and corps forces in the AO. This unit provides unit maintenance to units not otherwise provided support and has limited DS medical equipment maintenance service for units within its AO.

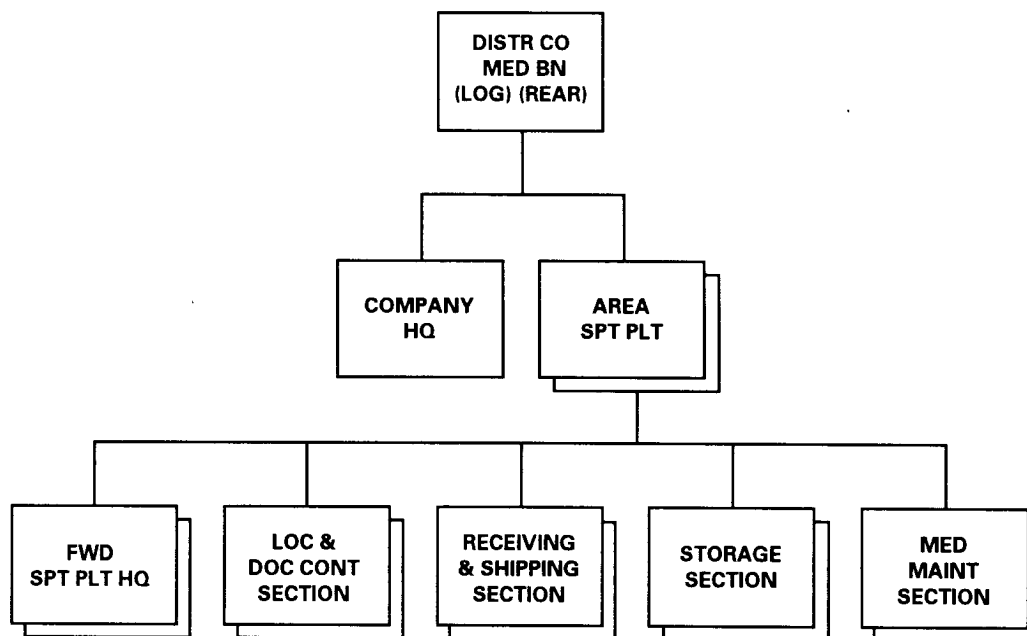


Figure 2-8. Distribution company, medical battalion, logistics (rear).

e. *Dependency.* This unit is dependent upon—

(1) Appropriate elements of the Theater Army Area Command for unit-level health support; supplemental transportation; finance, personnel and administrative services; religious and legal support; and technical intelligence for captured medical materiel.

(2) Headquarters and headquarters detachment, MEDLOG battalion (rear) for unit maintenance on organic equipment. Such support must be coordinated for an element operating independently.

(3) Logistics support company for food service.

(4) Headquarters and headquarters detachment, MEDLOG battalion (rear)

for communications support when collocated. Communications support must be coordinated for an element operating independently.

**2-14. Theater Medical Materiel Management Center, TOE 08897L000**

a. *Mission.* The mission of this unit (Figure 2-9) is to provide centralized, theater-level inventory management of Class VIII materiel, medical equipment maintenance, optical fabrication, and blood support to the theater. The TMMMC's blood management office manages Army blood and blood products and coordinates with the Unified Command Joint Blood Program Office (JBPO).

b. *Assignment.* The TMMMC is assigned to the senior medical command and may be attached to MEDLOG battalion (rear) for administrative and logistics support.

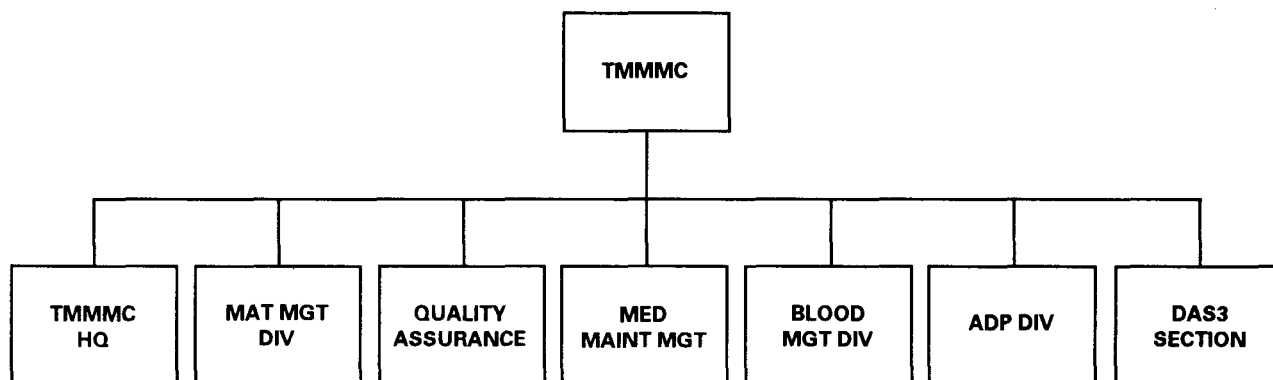


Figure 2-9. The Army Theater Medical Management Materiel Center.

c. *Basis of Allocation.* This unit is allocated on the basis of one per theater supported.

d. *Capabilities.* This unit—

(1) Monitors the operation of combat health logistical units in the theater which may include joint forces if a SIMLM mission has been assigned.

(2) Monitors the receipt and processing of Class VIII supply requisitions from combat health logistical units.

(3) Reviews and analyzes demands and computes theater requirements for Class VIII supplies, medical equipment, optical fabrication, medical equipment maintenance, and blood processing, storage, and distribution.

(4) Monitors and evaluates the work load, capabilities, and asset position of the supported MEDLOG battalions (forward and rear) and recommends cross-leveling of work load or resources to achieve compatibility and maximum efficiency.

(5) Implements plans, procedures, and programs for medical materiel management systems.

(6) Provides medical materiel management data and reports required by higher theater commands and services.

(7) Functions as the management interface with CONUS-based Class VIII NICPs and service item control centers.

(8) Manages critical items and analyzes production capabilities.

(9) Disseminates medical quality control information throughout the theater.

(10) Provides logistics assistance to MEDLOG battalions (forward and rear). Much of this assistance will be provided on-site at the MEDLOG battalions to improve communications, automation, and transportation interfaces.

(11) Provides logistics assistance to TOE hospitals within the theater to help improve logistics support to and within the hospitals.

(12) Coordinates for the return to theater of medical evacuation equipment (litters and other medical equipment) from CONUS.

e. *Concept of Operations.* The TMMMC provides centralized control over the MEDLOG support of the theater. This unit coordinates prioritization of medical materiel, medical maintenance, and optical fabrication assets in the theater.

f. *Dependency.* This unit is dependent on the existing area support system to provide for the exchange of information within the theater and to CONUS. The communications exchange requirements include, but are not limited to, high-volume data, voice, facsimile (FAX), and message traffic. This unit is dependent upon the MEDLOG battalion (rear) for organizational maintenance on all organic equipment and the logistics support company for food service support, when collocated.

## **2-15. Medical Detachment (Logistics Support), TOE 08909L000**

a. *Mission.* The mission of this unit (Figure 2-10) is to provide Class VIII supply, optical single-vision lens fabrication, and medical equipment maintenance support functions. It tailors the capabilities of a MEDLOG battalion (forward or rear) where work load or special operations require an increment of less than a battalion-sized unit.

b. *Assignment.* This unit is attached to a MEDLOG battalion (forward) or a MEDLOG battalion (rear).

c. *Basis of Allocation.* This unit is allocated as follows:

(1) One per division, ACR, or separate brigade not supported by a MEDLOG battalion (forward).

(2) One per 25,000 joint service population in combat zone (CZ) to include corps rear.

(3) One per 50,000 joint service population in COMMZ.

(4) One per MEDLOG battalion (forward) supporting a three-division corps.

d. *Capabilities.* This unit provides augmentation to the unit of attachment for Class VIII supplies, optical single-vision lens fabrication, and medical equipment maintenance support.

e. *Concept of Operations.* This unit provides a modular unit to incrementally increase the capability of a MEDLOG battalion. This unit may be deployed early in an operation to coordinate support to a DMSO and prepare to receive pre-positioned stocks and resupply from CONUS.

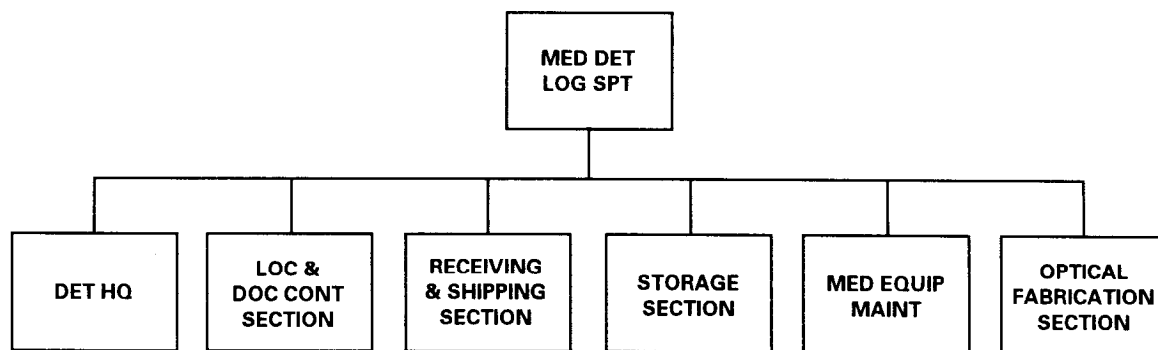


Figure 2-10. Medical detachment, logistics support.

## CHAPTER 3

## CLASS VIII SUPPLY OPERATIONS

## Section I. THE DIVISION

**3-1. General**

This section outlines Class VIII supply support in the division. It discusses the support roles and functions of the DMSO and the division medical operations center (DMOC).

**3-2. Combat Lifesaver**

a. The combat lifesaver is not a medic; he is a combat, CS, or CSS soldier with an additional duty. Although not a *medic*, he is a recipient/consumer of medical materiel within the CHLS. The normal resupply of the combat lifesaver assigned to a battalion with organic medical support is through the medical platoon. Combat lifesavers assigned to units without organic medical support will be resupplied by the medical unit providing area medical coverage; for example, a forward support medical company (FSMC)/MSMC or an ASMB.

b. The combat medic can provide emergency resupply to the combat lifesaver. This type of resupply should not be practiced on a routine basis as it presents logistical problems for the combat medic. It should be noted that the combat medic does not carry all of the exact medical items carried by the combat lifesaver. For example, the combat lifesaver carries a 500 milliliter (ml) container of intravenous (IV) fluid while the combat medic carries a 1,000 ml container of IV fluid.

**3-3. Combat Medic**

a. The combat medic requests supplies from the BAS. The requests (as with the combat lifesaver) are not formal; they can be oral or written. The requests are delivered/

communicated to the BAS by whatever means are available. Usually this will be accomplished by the medic in the ambulance returning to the BAS with patients. Ambulances may be used to transport the requester's supplies forward from the BAS as the ambulance returns to the maneuver unit. This system is referred to as backhaul.

b. The medical platoon leader can enhance the resupply to the combat medics by forward locating preconfigured materiel at patient-collecting points, using ambulances whenever possible. This method assumes a proactive standpoint on the part of the medical platoon leader in anticipating requirements to push supplies forward via ambulances returning to the collecting points. Ambulances should never go forward empty when medical supplies are needed. However, the medical platoon leader should be careful not to overstock the collecting points.

c. The ambulance crew can also resupply the combat medic from supplies on board the ambulance. The ambulance crew can then replenish its stock upon returning to the BAS.

**3-4. Battalion Aid Stations**

The forward deployed BASs of a division request their Class VIII from the DMSO located with the medical support company of the MSB. The DMSO may utilize the medical support company of the forward support battalion (FSB) as a resupply point, as well as a direct source of emergency resupply to the BAS. See Appendix D for materiel identification to include a comparison of the US and NATO classes of supply and the medical Federal supply classes.

### NOTE

While the FSMC can be used as a medical supply point, the limited manpower resources (one military occupational specialty [MOS] 76J, medical supply specialist) of the medical supply section within the medical company limits the amount of supplies that can be handled.

*b.* Battalion and squadron aid stations of separate brigades/regiments request Class VIII resupply from their respective medical supply offices. Requests which cannot be filled by their medical supply office are forwarded to the supporting MEDLOG battalion. Separate brigades/regiments operating as part of a division will receive Class VIII support from the DMSO.

### 3-5. Division Medical Supply Office

*a.* The DMSO is part of the MSMC and operates under the control of a health service materiel officer (HSMO). The DMSO is responsible for providing Class VIII supplies and equipment, to include unit-level maintenance and repair, and executes the divisional combat health logistics plans. The DMSO coordinates with the medical materiel branch of the DMOC in monitoring critical Class VIII items and responding to emergency requests. The DMOC coordinates with the division's/corps MCC for routine delivery of supplies to the forward areas.

*b.* While each medical unit maintains its own basic load of medical supplies, the DMSO carries the division's operating stocks. The DMSO stockage levels are determined by the division's contingency mission, its location, its transportation capabilities, customer demands, and guidance from the division surgeon. Ten days of supply (DOS) are considered to be the

norm for the DMSO, with 3 to 5 DOS at the medical units.

*c.* The levels of CHS provided to Army divisions, separate brigades, and regiments are known as Echelons I and II. Echelons I and II CHS are characterized by a system of modular medical (MODMED) assemblages and their associated medical resupply sets (MRS). The MODMED system allows the DMSO to quickly resupply forward medical units utilizing the MRS and other preconfigured/prearranged PUSH packages which can be either pushed or pulled to the supported medical units. The MODMED system also allows for emergency resupply and reconstitution of medical units within the division. Echelon II medical units have the same capability (same medical assemblages) as Echelon I medical units plus additional capability due to the Echelon II supporting mission.

*d.* The DMSO and separate brigades/ACRs medical supply offices anticipate requirements for the combat lifesaver, combat medic, and aid stations, allowing resupply PUSH packages to be forwarded to the maneuver battalion's trains area. These packages are small enough that they can be easily handled by one person. The DMSO, in conjunction with the DMOC and the MEDLOG battalion (forward), plans for preconfigured packages. Preconfigured packages can be sent automatically at prearranged intervals (PUSH) or can be called for when needed (PULL). This ensures that the user receives what he needs and eliminates waste of medical and transportation resources. The key to using preconfigured sets successfully is planning and coordinating.

### 3-6. Division Medical Companies

The FSMCs and MSMCs request their Class VIII supplies from the DMSO. Requests may come by message with returning ambulances (ground or air), by land line, or through radio nets within



the division. Each FSB medical company operates a Class VIII supply point in the BSA for the emergency resupply of maneuver battalions and other medical elements on an area basis. Emergency requests are forwarded to the FSMC by any available means. If the request cannot be filled from stock on hand, it is passed to the supporting DMSO.

### 3-7. Division Medical Operations Center

a. The DMOC staff is responsible to the division support command (DISCOM) commander for staff supervision of CHS within the DISCOM. The division surgeon exercises technical control of all medical activities within the division. The

DMOC coordinates CHS according to technical parameters established by the division surgeon. The DMOC consists of a medical operations branch, a medical materiel management branch, a patient disposition and report branch, and a medical communications branch.

b. The medical materiel management branch is responsible for planning, coordinating, and prioritizing MEDLOG and medical equipment maintenance programs for the division. The branch is staffed with an HSMO and a medical supply sergeant. The HSMO exercises technical control for all Class VIII operations within the division and manages the MEDLOG support operation for the division. See FM 8-10 and FM 8-10-3 for discussions of the DMOC'S functions.

## Section II. THE CORPS

### 3-8. General

This section outlines Class VIII supply support for the corps. It discusses roles and functions of the MEDLOG battalion (forward) and the ASMB.

### 3-9. Medical Battalion, Logistics (Forward)

a. The MEDLOG battalion (forward) is the Class VIII manager in the corps AO. It provides Class VIII support in the corps AO by using geographically dispersed organic assets. These assets are the FSPs in the distribution company. The FSPs may be relocated based on mission considerations.

b. The MEDLOG battalion (forward) provides Class VIII support to Echelon III units, ASMBs, and DMOCs by line item requisitioning using standard automated systems.

c. The MEDLOG battalion (forward) is supported by line item requisitions from the MEDLOG battalion (rear) with local procurement

and throughput from the strategic-level logistics system.

d. The MEDLOG battalion (forward), in coordination with the DMOC, is responsible for Class VIII supply support to the division (DMSO). The FSP of the MEDLOG battalion (forward) may establish a MEDLOG base to receive and distribute Class VIII PUSH packages to the DMSO and corps medical units deployed in the AO. The MEDLOG FSP also has the capability of handling emergency line item requests from supported customers. The MEDLOG battalion (forward) coordinates with the corps Materiel Management Center (MMC) and/or supporting movement control team (MCT), as required, and the DMOC for transportation support within the division. Backhaul, using ground or air ambulances, is used to supplement division or corps transportation assets to move medical supplies forward to the MSMC/FSMCs. From this point, medical supplies are carried forward using ambulances (air or ground) or other vehicles that are going forward to the BASs.

### 3-10. Area Support Medical Battalion

The ASMB provides medical resupply support to other medical elements and nonmedical units on

an area support basis. Requests are forwarded to the ASMB by the best means available. If requests cannot be filled from stock on hand, they are passed to the supporting MEDLOG battalion (forward).

## Section III. ECHELONS ABOVE CORPS

### 3-11. General

This section outlines Class VIII supply support for EAC. It discusses support functions of the MEDLOG battalion (rear), the ASMB, and the TMMMC.

operations, performs the theater SIMLM mission in conjunction with the TMMMC.

### 3-12. Medical Battalion, Logistics (Rear)

a. The MEDLOG battalion (rear) provides Class VIII supply support to EAC medical units and the MEDLOG battalion (forward). The MEDLOG battalion (rear) uses its organic area support platoons (ASPs) of the distribution company to accomplish its mission. Supported Echelon IV hospitals, the ASMB, and the MEDLOG battalion (forward) are resupplied by line item requisitioning using standard automated systems. Requests which cannot be filled from stock on hand are submitted through the TMMMC to the strategic logistics system. Requisitions filled from CONUS or other supporting supply sources will normally be throughput to the designated MEDLOG battalion.

### 3-13. Area Support Medical Battalion

The ASMB, as within the corps AO, provides medical resupply support to other medical elements and nonmedical units on an area support basis. Requests are forwarded to the ASMB by the best means available. If requests cannot be filled from stock on hand, they are passed to the supporting MEDLOG battalion (rear).

b. The MEDLOG battalion (rear) also maintains preconfigured PUSH packages in support of the MEDLOG battalion (forward). The MEDLOG battalion (rear), in coordination with the MEDLOG battalion (forward), may build resupply packages for Echelon I and Echelon II units.

### 3-14. Theater Medical Materiel Management Center

The TMMMC is responsible for the centralized management of theater-level medical logistics activities. Using automated systems, the TMMMC manages Class VIII materiel, contracting services, and end items. The TMMMC maintains in-transit visibility, redirects shipments, and directs theaterwide cross-leveling of Class VIII assets in joint and/or combined operations. It provides the interface between the operational and strategic logistics systems. It coordinates logistics data flow with the USAMMA (see Appendix A) in CONUS and coordinates with the senior movement control organization for movement of medical materiel assets in theater. The TMMMC monitors patient evacuation equipment and coordinates with CONUS and the US Transportation Command for timely return/resupply of these items to support theater requirements.

c. The MEDLOG battalion (rear), when in support of joint and/or combined

## CHAPTER 4

**BLOOD SUPPORT****4-1. General**

Blood and blood components are more than just another commodity of supply. Blood is live tissue and, as such, requires special handling.

*a.* Blood support in an active combat theater is a dynamic and ever-evolving process, heavily influenced by—

- Stringent storage and handling requirements.
- Inventory management constraints.
- Limited potency periods.
- Innovative technology.

*b.* To be successful, blood support must be a highly organized and cooperative effort on the part of—

- Operations and plans personnel.
- Blood bank personnel.
- Laboratory personnel.
- Transportation personnel.
- Primary medical care providers.

*c.* Theater blood support consists of CONUS-based resupply of blood components. In a developing theater during the buildup period, immediate blood requirements may be provided by pre-positioned frozen blood components. These stocks are designed to meet initial blood requirements until the logistical system can deliver blood components to the TO. See Chapter 8, FM 8-55, for computing blood requirements.

*d.* Blood services in a theater consist of a combination of missions. Of primary importance are the following:

(1) Receiving blood components from CONUS.

(2) Storing, issuing, and distributing blood components to MTFs.

(3) Collecting and processing blood in the theater for platelets and other blood components.

(4) Storing, processing, issuing, and distributing frozen blood components pre-positioned within designated theaters.

**4-2. Blood Components Available in the Field**

*a.* Blood is managed as fractional portions called components and is used in rather specific quantities based on a patient's injury and condition. The components likely to be present in a theater include packed red blood cells (RBCs), fresh frozen plasma (FFP), and platelets/whole blood (WB) (only if collected in theater).

*b.* Units of packed RBCs are separated from WB by centrifugation and removal of most of the plasma. Red blood cells can be stored in either the liquid or frozen state; the primary differences are the storage requirements, shelf life, and the additional processing required to freeze and thaw frozen cells. Plasma removed during the RBC manufacturing process is promptly frozen and termed FFP. Additionally, platelets (particles involved in coagulation) can be separated from plasma subsequent to RBC production.

c. Blood storage requirements are extremely important and present a real challenge to field storage facilities. The conditions required for storing various components have very little

tolerance; entire inventories of blood can be lost if conditions are not maintained correctly. See Table 4-1 for the storage temperatures and shelf lives of theater blood components.

*Table 4-1. Storage Requirements for Theater Blood Components*

<b>BLOOD COMPONENT</b>	<b>STORAGE TEMPERATURE</b>	<b>STORAGE SHELF LIFE</b>
RBC (LIQUID)	1 TO 6°C	35 DAYS
RBC (FROZEN)	-65°C OR COLDER	21 YEARS
FFP	-18°C OR COLDER	12 MONTHS
PLATELETS	-10 TO 24°C	5 DAYS

d. Conditions for transporting blood components are essentially the same as for prolonged storage; however, when shipping packed RBCs, a temperature range of 1°C to 10°C is acceptable. Specially built containers and packaging methods are prescribed in Technical Manual (TM) 8-227-3.

blood and blood components for shipment to one of the Armed Services Whole Blood Processing Laboratory (ASWBPL). The ASWBPL sends the blood to a US Air Force (USAF) Blood Transshipment Center (BTC) located at major airfields in the TO.

**4-3. Continental United States-Based Blood Supply**

The Army's blood support system is a part of the Armed Services Blood Program (ASBP). Upon mobilization, donor centers and CONUS MTFs increase their blood drawing capabilities as directed by the Army Blood Program Officer. Additional donor centers are opened as required. All of these facilities draw, process, and prepare

**4-4. Theater Blood Supply**

a. Theater blood support is provided to US military and, as directed, to allied military and indigenous civilian medical facilities. Each unified command maintains individual blood programs to meet their needs. These programs interface with CONUS blood bank services and receive blood components directly from established Department of Defense (DOD) Joint Service programs.

(1) The JBPO is the—

- Single blood program manager in the TO.
- Single interface with the Armed Services Blood Program Office (ASBPO) in CONUS.

(2) The JBPO requests assistance from the ASBPO when requirements exceed theater resources. The ASBPO requests support from the Joint Services. Blood collected and processed by DOD blood donor centers in CONUS is transported to USAF BTCs in the TO. Once received at the BTC, blood components are under JBPO control.

(3) The JBPO establishes Area Joint Blood Program Offices (AJBPOs) to—

- Implement TO blood program policies.
- Coordinate blood component use and inventory protocol on a geographical basis.
- Direct the issue of blood components from the BTC to the blood bank platoon, MEDLOG battalion (forward/rear).

(4) The blood bank platoon (MEDLOG battalion [forward/rear]) is the direct issue source for MTFs, medical units, and other users within its geographical AOR. Blood bank platoons support other Services' MTFs and nonmilitary facilities as directed by the AJBPO. The blood bank platoon leader, MEDLOG battalion (rear) may serve as the theater Army blood manager until the TMMMC is operational. A schematic diagram of a blood bank platoon structure is illustrated in Figure 4-1.

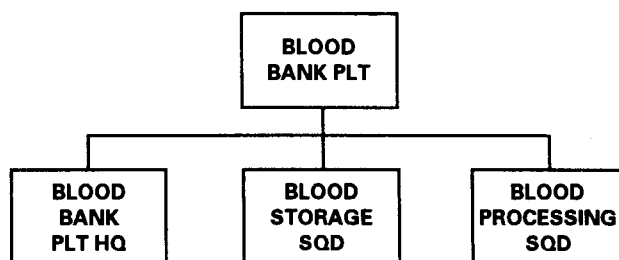


Figure 4-1. The blood bank platoon and its three functional sections.

b. A combination of sources is required to satisfy the theater's initial blood needs. Limited in-theater collections (blood bank personnel and hospital-based collections), initial deployed supply, and pre-positioned frozen blood inventories are all necessary to meet critical levels during the first few days of a developing theater. These sources, limited resupply from CONUS, may satisfy the needs of a small contingency operation. As the theater matures, the primary source of blood components comes

directly from the CONUS base. In-theater collection and processing are not realistic methods to acquire the tremendous quantities of blood required in a large, active theater. It remains necessary, however, to retain an in-theater collection capability to provide platelets and to satisfy limited emergency needs. Experience has shown in-theater collection to be the only choice for massively transfused patients when platelets and/or FFP are not available in sufficient quantities.

This paragraph implements QSTAG 815.

#### 4-5. Echelon Blood Support

a. *Echelon I.* No blood or blood product support is provided at this echelon.

b. *Echelon II.*

(1) Blood support for Echelon II organizations consists of a limited number of Group O RBC units. Actual inventory quantity is based on contingency need and storage capability. Blood inventory and supply are functional responsibilities of the DMSO at the division level and the ASMB at the corps and COMMZ level. Blood support is limited to emergency resuscitative care and is infused as Group O RBCs without compatibility testing/crosshatching.

(2) Request for blood support and resupply of blood and blood products is through coordination with the supporting blood bank platoon or forward supply platoon. Emergency resupply is performed by air ambulances if the need is of sufficient urgency.

c. *Echelon III.*

(1) *Combat support hospital.*

(a) In the combat support hospital (CSH), blood support has evolved significantly with the fielding of the Deployable Medical Systems (DEPMEDS) blood laboratory and the shelters, tactical, expandable (also known as the International Organization for Standardization [ISO] shelters).

#### NOTE

The ISO shelters are the hard-walled shelters used in the DEPMEDS-equipped (CSH, general hospital [GH], and field hospital [FH]) hospitals.

The transfusion capability at the CSH has been improved with the implementation of greater storage capacity, basic compatibility testing, multicomponent availability, and staffing with a laboratory officer and noncommissioned officers (NCOs) with specific blood bank training. Inventories of up to 480 units of blood can be stored in a DEPMEDS refrigerator.

(b) The CSH blood inventory management and resupply operations are coordinated directly with the supporting blood bank platoon. Inventories are managed for Groups A, B, and O blood, and both Rh positive and Rh negative blood types. A small inventory of FFP is available at the CSH. The CSH has the capability to conduct limited emergency collection, but does not have the capability to perform serological testing of the donor units (that is, hepatitis, human immunodeficiency virus [HIV], and syphilis testing). The decision to transfuse blood collected in a theater is governed by theater policy.

(c) The relatively large quantity of blood maintained at the CSH requires the use of large-capacity, blood bank-type refrigerators equipped with audible and visual temperature alarm systems. Freezers for FFP storage are similarly monitored.

(2) *Mobile army surgical hospital.* The MASH is not DEPMEDS equipped. Blood support at the MASH will consist of only Group O RBCs (liquid) in limited quantities as dictated by the specific contingency and expected casualty rate. The MASH has limited blood storage capability and requires blood resupply on a

frequent basis. Like the CSH, the MASH has the capability to conduct limited emergency collection, but does not have the capability to perform serological testing of the donor units. Blood inventory management and resupply operations are coordinated directly with the supporting blood bank platoon.

*d. Echelon IV.*

(1) Each FH and GH stores ABO group-specific RBCs, FFP, and platelets. Blood inventory management and resupply are coordinated directly with the supporting blood bank platoon.

(2) Blood bank testing services available within the FH and GH include compatibility testing and component therapy. The FH and GH have the same emergency blood collecting capability as found in Echelon III MTFs.

#### **4-6. Blood Reporting System**

The blood reporting system has been standardized to enhance blood requirements projection, blood requests, blood inventory reports, and to provide information on the overall blood element operations of all Services, to include Joint Services, in the TO. The ASBPO developed the contingency blood reports and use of the US Joint Message Text Format (USJMTF). The two standard joint message text format reports used to report blood program operations are—

- The Blood Report (BLDREP).
- Blood Shipment Report (BLDSHIPREP).

For a detailed discussion on the blood reporting system, see Appendix E.

## CHAPTER 5

**MEDICAL EQUIPMENT MAINTENANCE****Section I. ROLE OF MEDICAL EQUIPMENT MAINTENANCE****5-1. General**

a. Combat health support in future military operations may range from the desert to the tropics to the arctic. The uncertainty of the battlefield environment and the method of employment have placed more emphasis on equipment readiness and maintenance of its operational status. Medical equipment technology has advanced at a very rapid pace; equipment items required to support these technological advances have become more complex. In many cases, proper care and maintenance now require sophisticated test, measurement, and diagnostic equipment (TMDE) and continuous and advanced schooling for maintenance personnel.

b. The current maintenance structure consists of unit-level (UL), DS, GS, and depot maintenance. To sustain medical equipment, medical maintenance personnel must be allotted time to perform unscheduled maintenance on medical equipment, perform preventive maintenance checks and services (PMCS), electrical safety inspections, and calibration. Additionally, prescribed load list (PLL) items must be budgeted for and made available at the UL. At DS/GS levels, demand-supported repair parts and consumables and bench stock are required.

**5-2. Objectives of the Army Medical Department Maintenance System**

a. The overall objective of medical equipment maintenance is to support the readiness and effectiveness of CHS operations by sustaining medical equipment as effectively, responsibly, and economically as feasible. Maintenance is defined as the care and effort expended to keep an item in a specified standard condition. Maintenance of an item includes—

*(1) Scheduled services.*

- Preventive maintenance checks and services.
- Electrical safety.
- Calibration.
- Verification.
- Certification.

*(2) Unscheduled services.**(3) Technical inspections (TIs).*

b. Medical equipment maintenance ensures that life-sustaining equipment is fully mission capable. Maintenance planning must be conducted concurrently with supply planning as the two areas are closely related. A good maintenance program will relieve strain on the supply system by identifying and repairing equipment that would otherwise require replacement. Proper authorized stockage list (ASL) management improves maintenance turnaround time when repair parts are required beyond PLL stockage authority.

c. Specific objectives of the AMEDD maintenance system are to—

- Provide a more responsive maintenance system, improve operational readiness, and increase mobility and flexibility at the lowest overall cost.
- Establish and effectively use scheduled maintenance programs consisting of PMCS, calibration, verification, and certification (CVC), and electrical safety tests to predict, prevent, and reduce equipment failures.



- Establish and maintain a MEDSTEP in accordance with (IAW) AR 40-61.
- Use the four levels of maintenance (unit, DS, GS, and depot) to minimize resource requirements.
- Establish a vertical maintenance management structure through which maintenance can be performed effectively and economically.
- Establish and maintain a repair parts program IAW AR 40-61.
- Establish procedures where equipment maintenance is supported commensurate with available time and other resources.
- Optimize repairs by replacement forward of the corps rear boundary prior to evacuation.
- Integrate the forward support maintenance concept to maximize equipment in-service time.

### 5-3. Maintenance Factors

Responsive maintenance comes from the joint effort of many individuals. Their actions are guided and influenced by factors common to all maintenance operations. These factors function like a chain; if one area is neglected, the overall system is weakened. The factors include the following:

*a. Command Interest.* This is the active involvement of commanders and supervisors at all levels in the medical equipment maintenance operations for which they are responsible. The commander is responsible for the readiness of medical equipment assigned to him

whether it is a reportable end item, subassembly, or component of a medical materiel set (MMS). To ensure deployable readiness, commanders set goals, objectives, and priorities. They keep informed of maintenance requirements, status, and capabilities. They provide guidance and direction to unit personnel. Commanders should develop training plans which ensure appropriate personnel receive training and licensing on equipment which requires PMCS.

*b. Management.* Managers use available resources to accomplish the mission in the most efficient manner. Maintenance management involves all members of the chain of command as well as designated individuals who manage the maintenance resources under their control. The manager plans, organizes, directs, coordinates, and controls resources to accomplish the maintenance mission.

*c. Supervision.* Maintenance supervisors ensure that personnel perform required tasks in a correct, safe, and timely manner. Supervisors also take an active interest in the training and welfare of their personnel. Supervisors should set goals to maximize the training and licensing of section personnel on assigned equipment which requires PMCS.

*d. Motivation.* This is the willing desire to perform in order to accomplish the mission. Personnel are motivated by the leadership of unit commanders, supervisors, and maintenance managers.

*e. Skill.* This is the technical ability of personnel to perform the tasks required by their duty position. Skill development is important to all personnel but particularly to inexperienced soldiers joining the unit. Commanders and supervisors must provide ongoing training and licensing programs to ensure that learned skills are sustained over time.

*f. Resources.* These include personnel, publications, repair parts, tools, TMDE, facilities, training, and time. Commanders and supervisors at all levels must ensure that their

subordinates are adequately resourced to accomplish the mission they are assigned. Mission failure due to lack of required resources is a command failure.

## Section II. LEVELS OF MEDICAL EQUIPMENT MAINTENANCE AND RESPONSIBILITIES OF EACH LEVEL

### 5-4. General

Maintenance supports readiness and effectiveness of Army elements by sustaining systems and equipment as effectively, responsively, economically, and as far forward as the situation permits. The four levels of the Army maintenance system keep materiel in a mission-ready condition, restore equipment to a serviceable condition, or provide approved equipment modifications.

### 5-5. Levels

Medical equipment maintenance support must be provided as far forward as possible. The four levels of maintenance for medical equipment are—

*a. Unit.* Unit-level maintenance is performed by the operator and/or medical equipment repairers to attain a high level of operational readiness. This level of maintenance consists of PMCS to detect equipment deficiencies. Maximum use is made of built-in test equipment (BITE) and TDME to perform maintenance. Operator manuals and local standing operating procedures (SOPS) are used as guides. All operators and assistants should be licensed on equipment which requires PMCS.

*b. Direct Support.* This level of maintenance is that maintenance beyond the authority, capability, and capacity of UL

maintenance. Direct support maintenance includes repairing and returning equipment to the user and providing repair parts support. Direct support maintenance is provided by the designated MEDLOG battalion on an area support basis.

*c. General Support.* This level of maintenance provides authorized maintenance functions that exceed the authority, capability, and capacity of DS maintenance. General support maintenance is provided by the designated MEDLOG battalion on an area support basis.

*d. Depot.* This level of maintenance supports the maintenance system by overhaul and rebuild operations to include special inspections, tests, and modification program actions. Depot-level maintenance is provided by the USAMMA maintenance divisions or by designated MEDLOG battalions when directed by the appropriate commander. In a mature TO, selected depot-level maintenance capabilities, such as the rebuilding of x-ray tubes, may be authorized at the GS level.

### 5-6. Responsibilities

#### *a. Unit-Level Maintenance.*

(1) *Operator maintenance.* Maintenance tasks which the operator performs consist of—

- Preventive maintenance checks and services IAW the appropriate TMs or commercial manuals. These services include routine services such as cleaning, dusting, washing, checking for frayed cables, stowing items not in use, and checking for loose hardware.

- Replacement of operator accessories and operator repair parts.

**NOTE**

Replacement of operator parts does not require extensive disassembly of the end item or accessory, critical adjustment after replacement, or the extensive use of tools.

(2) *Medical equipment repairer maintenance.* Medical equipment repairers perform unit maintenance services and functions including—

- Scheduling and performing periodic maintenance services IAW the appropriate TMs or commercial manuals, scheduled periodic maintenance as directed in AR 40-61, electrical safety inspections and tests, and CVC services.

- Performing unscheduled maintenance functions with emphasis on replacement of printed circuit boards (PCBs) and modules, when available. Maintenance allocation charts are used to determine specific actions at each level of maintenance support.

- Operating a repair parts program to include Class VIII and Class IX repair parts, as well as other commodity class parts, for medical equipment.

- Maintaining a technical library of service TMs and all authorized parts listings for on-hand equipment items.

- Conducting TIs on new or transferred items of medical equipment.

- Establishing adequate administrative procedures for the control and documentation of maintenance services and functions IAW Technical Bulletin (TB) 38-750-2.

- Notifying support maintenance activities of requirements and/or evacuating unserviceable equipment or higher echelon PCB and modules.

*b. Direct Support-Level Maintenance.* Responsibilities of this type of maintenance include the following:

- Providing all authorized maintenance functions which exceed the authority, capability, or capacity of unit maintenance.

- Providing UL maintenance (by the MEDLOG battalion [forward] or medical detachment) to medical units within the CZ without an organic unit maintenance capability.

- Repairing DS equipment.

- Providing on-site support to CZ medical units by means of MSTs.

- Providing repair parts and modules through the exchange program.

- Fabricating minor repair parts as required to meet operational readiness requirements.

- Notifying the next higher level of maintenance support of requirements for on-site MSTs and/or evacuation of unserviceable equipment or higher echelon PCB and modules.

c. *General Support-Level Maintenance.* Responsibilities of this type of maintenance include the following:

- Providing all authorized maintenance functions which exceed the authority, capability, or capacity of preceding levels of medical maintenance.

- Providing UL maintenance (by the MEDLOG battalion [rear]) to medical units within the COMMZ without an organic unit maintenance capability.

- Repairing GS equipment.

- Providing on-site support to COMMZ medical units and to DS units by means of MSTs.

- Operating a cannibalization point.

- Fabricating repair parts when required.

- Notifying the next higher echelon of maintenance support requirements for on-site MSTs and/or evacuation of unserviceable

equipment or higher echelon components modules.

- Providing maintenance support to the NICP medical supply system.

d. *Depot-Level Maintenance.* This level of medical maintenance includes the following:

- Providing overhaul/rebuild of end items, PCB, x-ray tube heads, and modules in support of the NICP supply system and as “repair and return” actions.

- Performing special inspections, tests, and modification program actions.

- Performing maintenance services and functions for the strategic supply system.

- Manufacturing items and parts when the requirement exists.

- Providing end items, PCB, modules, and repair parts through established programs in support of TOE units.

- Providing on-site MSTs.

### Section III. MEDICAL EQUIPMENT MAINTENANCE SUPPORT

#### 5-7. General

a. *Unit Commander’s Responsibility.* Medical maintenance is the responsibility of the unit commander. The scope of medical maintenance ranges from the maintenance functions for basic mechanical equipment to complicated medical electronic equipment such as x-ray machines. If an item of medical equipment in the BAS requires unit maintenance, it is transport-edeed to the supporting medical company for

maintenance. Medical maintenance support is provided by the medical equipment repairer (UL) assigned to each medical company. If an item of equipment cannot be repaired at the UL, then the unit must notify the DMSO who will transport the equipment to the supporting corps MEDLOG battalion (forward) or request a MST from the supporting MEDLOG battalion (forward). Equipment requiring service beyond the capability of the MEDLOG battalion (forward) will be evacuated to the MEDLOG battalion (rear).

b. *Low-Density Lifesaving Diagnostic and Therapeutic Equipment.* This equipment will be repaired or replaced immediately. The MEDLOG battalions maintain equipment in the MEDSTEP program. The equipment is used to provide supported activities with serviceable items for unserviceable, economically repairable items. Repairable exchange (RX) of low-density lifesaving equipment through the use of the MEDSTEP may be employed, if necessary. Repairable exchange assemblies, modules, and/or PCBs will also be used to maintain high operational availability rates.

### 5-8. Combat Unit Organic Medical Care

First aid characterized by self-aid, buddy aid, and the combat lifesaver entails no medical equipment requiring significant maintenance.

### 5-9. The Combat Medic

Emergency medical treatment is provided by the combat medic with his prescribed load of medical equipment and supplies. No medical maintenance-significant equipment is issued to him.

### 5-10. The Treatment Squad

This squad establishes the BAS and is composed of treatment teams which are authorized trauma and sick call MESs. Multiple maintenance-significant items are contained in these sets. The equipment is primarily battery-operated and simple mechanical devices. User/operator personnel are capable of performing most repairs using standard operator-level repair parts. The treatment squad can also effect "repairs by replacement" or request "repair and return" services from the supporting medical company. Maintenance services by medical equipment repairers will not normally be possible while the

treatment squad is deployed. However, during "stand-down" periods, unit maintenance support can be provided by the medical maintenance repairers from the FSMC or the MSMC. Normally, no item of equipment contained in these sets require DS or GS maintenance. User/operator maintenance tasks and operator-level repair parts will be identified in the TMs or operator manuals and applicable materiel fielding plans (MFPs).

### 5-11. The Ambulance Squad

This squad, in both the BASs and the medical companies, is composed of medical specialists, ambulances, and a MES per ambulance. Several maintenance-significant items are contained in this MES. The equipment is basic electro-mechanical items. User/operator personnel are trained to repair most malfunctions using standard operator-level repair parts. The ambulance squads can also effect "repairs by replacement" or request "repair and return" services from their source of medical supply support. There are limited medical maintenance services provided by the medical maintenance repairers from the FSMC or the MSMC. Medical maintenance services are coordinated to ensure maximum medical maintenance support throughout the division.

### 5-12. The Medical Company

a. The medical company is modular in structure. Multiple modules to include treatment squads, area support squads, patient-holding squads, and ambulance squads are organic to the FSMC and MSMC. Multiple MESs that contain medical maintenance-significant items are organic to these modules.

b. The treatment platoon and its associated medical equipment requires medical

equipment repairers to be assigned to the MSMC. The medical equipment repairers have adequate TMDE, tools, and repair parts. Their primary tasks are scheduled services and repairs by exchanging PCBs, modules, and components/end items.

c. The low density of like equipment items, such as x-ray systems, precludes total organic support by UL maintenance and necessitates the use of MSTs from the MEDLOG battalion (forward). In addition, the attachment of corps-level surgical squads and FSTs also requires MST support. Maintenance plans prepared for major maintenance-significant items are disseminated as maintenance allocation charts located in the equipment TMs and MFPs. The maintenance allocation charts (MACs) designate the maintenance functions authorized to be performed at each level of maintenance. Also, the MACs identify the tools and equipment necessary to perform the specific function and necessary informative remarks.

### 5-13. The Division Medical Supply Office

Medical equipment maintenance is an important responsibility of the DMSO. The DMSO is located in the MSMC of the MSB of all divisions and is responsible for providing medical maintenance support to the medical treatment elements within the division. The DMSO exercises its medical maintenance responsibilities by supervising the UL medical equipment maintenance program. Medical equipment repairers are assigned to the DMSO to provide UL medical maintenance support to those divisional units and units attached to the division that have medical maintenance-significant equipment and no organic medical maintenance assets. Medical equipment that requires maintenance beyond the organic capability of the owning unit are recovered/evacuated by the owning unit to the DMSO. Separate medical companies will receive

medical equipment maintenance from the ASMB or the nearest medical company capable of supporting them.

a. *Readiness of Medical Equipment.* The DMSO medical maintenance personnel must develop a program to ensure that the division's medical equipment is operational and ready to go to war. The program includes—

(1) *Scheduled maintenance services.* These services consist of PMCS, safety checks, and CVC. They must be scheduled on a periodic basis and should be placed on unit training schedules. The frequency of each scheduled service should be in compliance with technical or commercial manuals and other publications. In consideration of the performance of these services, the following must be provided:

- Adequate availability of equipment and manpower resources.
- Availability of required TMDE.
- Proper scheduling of periodic services and other taskings.

(2) *Remedial repairs.* Repair work orders must be completed in a timely manner to maintain a high readiness posture and prevent a backlog from occurring. A repairer will either repair the equipment, calibrate it, order parts required to effect repair, request MEDSTEP equipment from the MEDLOG battalion, or evacuate the equipment for repair. Equipment is evacuated to the supporting MEDLOG battalion when necessary repairs exceed the unit's TMDE or repair capability.

(3) *Records.* Records for medical equipment are kept IAW AR 40-61. The DMSO should review these records periodically. Required records for medical equipment are as follows:

(a) DA Form 2404, Equipment Inspection and Maintenance Worksheet.

(b) DA Form 2405, Maintenance Request Register.

(c) DA Form 2407, Maintenance Request and DA Form 2407-1, Maintenance Request—Continuation Sheet.

(d) DA Form 2409, Equipment Maintenance Log (Consolidated).

(e) DA Form 5621-R, General Leakage Current Requirements (LRA).

(f) DA Form 5624-R, DC Defibrillator Inspection Record (LRA).

(g) DA Label 175, Defibrillator Energy Output Certification.

(h) DD Form 314, Preventive Maintenance Schedule and Record.

(i) DD Form 2163, Medical Equipment Verification/Certification.

(j) DD Form 2164, X-ray Verification/Certification Worksheet.

(k) FDA Form 2579, Report of Assembly of a Diagnostic X-ray System.

(4) *Repair parts.* Prescribed load list parts and quick supply store (QSS) items need to be monitored routinely at UL; shop stocks (demand-supported), bench stocks, and QSS items authorized at DS, GS, and depot level also need to be monitored routinely. A mandatory parts list (MPL) of repair parts required to support medical equipment that is nondemand-supported during peacetime operations is published in TM 8-6500-MPL. It should be noted that some repair parts needed to repair medical

equipment fall in the category of Class IX repair parts (that is, common fasteners, electrical components, and others). Requisitions for Class IX repair parts are sent through the organization's supporting motor pool and require monitoring and follow-up efforts. Special considerations for medical repair parts are explained in AR 40-61.

b. *Division Medical Maintenance Services.* Organic medical equipment maintenance will be provided as follows:

(1) *Operator/user maintenance.* Responsibilities of operators/users include—

- Maintaining equipment by performing routine services/operator PMCS. (Some examples of these services are cleaning, dusting, washing, and checking for frayed cables and loose hardware.)

- Coordinating maintenance services beyond their capability with unit maintenance repairers.

- Performing equipment operational testing.

- Replacing operator-level spare and repair parts that will not require—

- Extensive disassembly of the end item.

- Critical adjustment after replacement.

- Extensive use of tools.

- Maintaining operator's literature with the equipment.

- Maintaining and using TM 8-6500-001-10-PMCS, for all reportable medical equipment.

(2) *Unit-level maintenance.* Responsibilities of division medical equipment repairers include—

- Scheduling and performing services IAW the appropriate technical or operator manuals. (Services include electrical safety inspections and tests and CVC.)

- Performing unscheduled maintenance functions with emphasis upon the replacement of assemblies, modules, and PCBs.

- Operating a medical equipment repair parts program to include Classes VIII and IX as well as other commodity class parts.

- Maintaining a technical library of operator and maintenance TMs and/or associated manufacturers' manuals and parts lists for all maintenance-significant medical equipment in the division.

- Conducting TIs of new or transferred medical equipment within the division.

- Maintaining documentation of maintenance functions within the division IAW TB 38-750-2 or DA standard automated systems.

- Collecting and reporting data for readiness reportable medical equipment.

- Determining the level of maintenance required to repair a piece of equipment.

- Notifying the MEDLOG battalion (forward) of requirements for maintenance support services, RX, or MEDSTEP assets.

- Evacuating all medical equipment requiring DS-level maintenance to the MEDLOG battalion (forward).

#### **5-14. The Medical Battalion, Logistics (Forward)**

a. This battalion provides DS maintenance for medical equipment within the corps. It also provides UL maintenance support for medical equipment to supplement units not otherwise provided such support. The entire CHS chain from the treatment squads through the corps-level hospitals (which are discussed in Section IV of this chapter) will require varying degrees of medical equipment maintenance support from the maintenance element of the MEDLOG battalion (forward).

b. In corps and forward medical units, diagnosis and repair of medical equipment must be accomplished as far forward as possible. Ideally, equipment will be repaired on-site by either organic medical equipment repairers or by the MST from the MEDLOG battalion (forward). However, some equipment will require evacuation on a "repair and return" basis, or exchange using MEDSTEP assets.

c. Following on-site assistance, the next priority of DS maintenance will be providing exchange, PCBs, and modules forward with subsequent repair and return to stock actions. Equipment requiring a higher level of support will be handled by MSTs from the MEDLOG battalion (rear) or evacuated as appropriate.

d. Controlled exchange, cannibalization, and other maintenance programs will be used as dictated by command policy IAW AR 40-61 and AR 750-1. These programs will prevent nonfunctional equipment from adversely impacting upon the delivery of health care.



**5-15. The Medical Battalion, Logistics (Rear)**

a. This battalion provides DS and GS maintenance to medical units located within the COMMZ. It also provides backup DS and GS maintenance to the MEDLOG battalion (forward). Most items that exceed the capability of the MEDLOG battalion (rear) may be returned to CONUS.

b. Combat health support, above treatment squad capability, to the COMMZ hospitals will require varying degrees of medical equipment maintenance from the maintenance elements of the MEDLOG battalion (rear). This level of maintenance will usually not be “visible” to division units; the MEDLOG battalion (forward) will serve as their contact for all higher-level maintenance services.

c. The MEDLOG battalion (rear) MSTs will provide support to the MEDLOG battalion (forward) as well as to the medical units located in the COMMZ.

d. Next in maintenance service priority, the MEDLOG battalion (rear) will provide services to COMMZ units and “repair and return” services for MEDLOG battalion (forward) RX returnables. Emphasis will always concentrate on moving serviceable items forward with subsequent return of unserviceable. The significant densities of equipment items forward of the

MEDLOG battalion (rear) will allow production line-type services for repairable.

**5-16. The Theater Medical Materiel Management Center**

This center is responsible for reviewing and analyzing demands and computing requirements for medical equipment maintenance in the theater.

**5-17. Depot Support**

a. The primary mission of depot-level maintenance support, located in CONUS, is to perform functions for the NICP logistics system to include surveillance and maintenance for equipment in storage. This function includes the rebuild/overhaul of modules, components, and items retrograded from the TO. (Using units will usually have replacement equipment already furnished.)

b. Additional depot missions include modernization, modification, and fabrication of items as required. These missions require unique skills and associated support equipment and are accomplished in CONUS.

c. The depot-level activities will also manage any required contractual arrangements with the original manufacturers or other third party maintenance sources when in-house capabilities or capacities are not available.

## Section IV. THEATER HOSPITAL MEDICAL EQUIPMENT MAINTENANCE

### 5-18. General

This section provides an overview of medical equipment maintenance for the theater hospitals.

### 5-19. Medical Equipment Maintenance

#### a. *Echelon III Hospitals.*

##### (1) *Mobile army surgical hospital.*

Although the MASH is an Echelon III hospital, it is designated to primarily function within the rear area of the division or the forward edge of the corps. This organization is staffed to perform unit maintenance on organic equipment. The MEDLOG battalion (forward) provides repair and return services and MST on-site assistance to include DS maintenance support. Assistance may also be required from the MEDLOG battalion (rear) as well as depot-level assistance from CONUS. Maintenance plans for maintenance-significant items are defined in the maintenance allocation charts located in equipment TMs and MFPs. See TOE 08765L000 for the medical maintenance-related equipment.

(2) *Combat support hospital.* This hospital will normally be employed in the corps area. The MMSs for the CSH contain numerous items of maintenance-significant medical equipment to include multiple high technology items. This organization is staffed to perform unit maintenance on organic equipment. Medical equipment repairers (advanced) organic to the CSH provide UL maintenance services on the high technology items and supervision of maintenance services. Although the primary maintenance functions must continue to concentrate on

scheduled services and remedial repairs by replacement of PCBs, modules, and component/end items, the higher densities and nonmodular equipment configurations require an advanced level of component-level repair methodologies. Therefore, limited DS capabilities are organically assigned to the CSH. Nonetheless, "repair and return" services and MST on-site assistance from the MEDLOG battalion (forward) are necessary. Assistance may also be required from the MEDLOG battalion (rear) as well as depot-level assistance from CONUS. Maintenance plans for maintenance-significant items are defined in the maintenance allocation charts located in equipment TMs and MFPs. See TOE 08705L000 for the medical maintenance-related equipment.

b. *Echelon IV Hospitals.* The FHs and GHs are normally located in the COMMZ. These organizations are staffed to perform UL maintenance on organic equipment. The MMSs for these hospitals contain numerous items of maintenance-significant medical equipment, to include additional high technology items not authorized to corps and divisional units. These hospitals will be required to provide UL maintenance services on high technology items and supervision of maintenance services. Although the primary maintenance functions must continue to concentrate on scheduled and unscheduled services by replacement of PCBs, modules, and components/end items, the higher densities and nonmodular equipment configurations will require an increased component-level repair methodologies. Repair and return services and MST on-site assistance from the MEDLOG battalion (rear) are necessary. See TOE 08715L000 and TOE 08725L000 for the medical maintenance-related equipment.

**5-20. Battle Damage Assessment and Repair**

a. Battle damage assessment and repair (BDAR) is a program which was developed to enhance the readiness of vehicles and prime movers. It entails the authorized, temporary repair of specific vehicle parts after assessment by the unit maintenance personnel and as authorized by the unit commander IAW with BDAR guidelines.

b. This program is intended for use on vehicles/prime movers only. **MEDICAL EQUIPMENT IS NOT INCLUDED IN THE BDAR PROGRAM.**

c. Although the *BDAR program does not apply to medical equipment*, medical personnel assigned to units with vehicles must be aware of the principles of BDAR. If not explained to them, they may misconstrue the concept and apply it to medical equipment. For further explanation of the BDAR program, see FM 63-20.

## CHAPTER 6

**OPTICAL SUPPORT****6-1. General**

a. This chapter outlines the optical support provided to the TO. Optical support includes—

- Fabrication of single-vision and multivision prescription lenses.
- Fabrication of standard spectacles.
- Fabrication of aviation spectacles.
- Fabrication of protective mask inserts.
- Military standard spectacle frame repair.
- Provision of contact lenses for selected aviators (Army helicopter [AH]-64 “Apache” aviators only).

b. Optical fabrication laboratories are responsible for making only those spectacles and protective vision devices that require corrective prescription lenses. Nonprescription lenses are a Class II item and are the quartermaster’s responsibility.

c. To reduce the optical work load in the TO, soldiers will be issued the following prior to deployment—

- Two pairs of standard military spectacles.
- One pair of protective mask inserts or contact lenses (AH-64 aviators only).

**6-2. Echelons I and II Optical Support**

a. There is no organic optical support at Echelon I. Patients requiring optometric

services initially report to the BAS. For those patients requiring only routine replacement of spectacles, necessary information is obtained from the individual and forwarded to the division optometry section, MSMC. The required spectacles are fabricated and returned to the BAS for issue to the individual. For optometry services other than routine repair or replacement of spectacles, patients are transported to the optometry section.

b. The FSMC, FSB, will request replacement of corrective eyewear for units in the BSA. The FSMC submits replacement request to the MSMC via the best communications available with delivery back to the requester.

c. The optometry section of the MSMC is responsible for providing single-vision fabrication and limited eyewear repair to units in the supported division. If appropriate materials are not available at the MSMC or the prescription exceeds the MSMC fabrication capability, it is passed to the MEDLOG battalion (forward) for fabrication with return of the prescription to the requester.

d. Separate brigades and ACRs have optometric support with limited eyewear repair capabilities, but no optical fabrication capabilities. All requests for prescription eyewear are forwarded via data link to the MEDLOG battalion (forward) for fabrication and return to the requester.

**6-3. Echelon III Optical Support**

a. The optometry section of the ASMB is responsible for providing single-vision fabrication and repair of corrective eyewear for units on an area basis. All medical units, except Echelon III hospitals, are supported by the

supporting medical company of the ASMB. Prescriptions and/or replacement requests which cannot be filled from on-hand stock or which exceed the ASMB capability are passed to the MEDLOG battalion (forward) via the best communications available with delivery back to the requester.

*b.* Echelon III hospitals request optical support from the MEDLOG battalion (forward) with delivery back to the requester.

*c.* The MEDLOG battalion (forward) provides single-vision optical fabrication to the corps area. All prescriptions requested from the MEDLOG battalion (forward) optical section that cannot be filled are passed to the MEDLOG battalion (rear) with delivery of the request back to the originating medical activity.

#### **6-4. Echelon IV Optical Support**

*a.* As in the corps, the optometry section of the ASMB is responsible for providing single-vision fabrication and repair of corrective eyewear on an area basis for units in the COMMZ. All medical units, except Echelon IV hospitals, are supported by the supporting medical company of the ASMB. Prescriptions and/or replacement requests which cannot be filled from on-hand stock or which exceed the ASMB capability are passed to the MEDLOG

battalion (rear) via the best communications available with delivery back to the requester.

*b.* Echelon IV hospitals request optical support from the MEDLOG battalion (rear) with delivery back to the requester.

*c.* The MEDLOG battalion (rear) provides single-vision and multivision support to EAC and GS (backup) to the corps. All prescriptions requested from the MEDLOG battalion (rear) optical section that cannot be filled are passed through the TMMMC to the CONUS support base (USAMMA). Delivery of the item(s) from CONUS will be to the request originator.

#### **6-5. Contact Lenses**

*a.* Currently, contact lenses are only authorized for aviators of the AH-64 Apache. Standard refractive error correction options for the M-43 protective mask have proven to be incompatible with the helmet and the display sighting system component of the AH-64 Apache.

*b.* Issue of contact lenses to authorized users will be through a blanket purchasing agreement (BPA) with decentralized ordering and distribution. Practitioners providing contact lenses care will request contact lenses via the BPA.

## CHAPTER 7

## COMMAND AND CONTROL AND COMMUNICATIONS

**7-1. General**

This chapter provides an overview of the C2 structure within a TO. The chapter also discusses unit communications in effect the date of this publication.

**7-2. Command and Control**

The MEDCOM is the senior medical headquarters assigned to a TO. It controls the majority of its assigned units through subordinated COMMZ medical brigades. The medical brigade assigned to the corps support command (COSCOM) is the senior medical C2 element in the corps; it controls nondivisional medical units assigned to the corps through its subordinate medical group headquarters. During initial buildup or contingency operations, the senior medical C2 headquarters may be a medical brigade or medical group. A medical brigade or group will exercise C2 over the MEDLOG battalion (forward). In a mature theater, the MEDCOM will exercise C2 over the TMMMC and the MEDLOG battalion (rear). The C2 of the medical detachment (logistics support) will be the unit to which it is attached for augmentation.

**7-3. Communications**

The success of combat health logistics operations is dependent upon the commander's ability to communicate with his staff, deployed elements, higher headquarters, and supporting and supported units. Combat health logistics units' communications assets include amplitude modulation (AM) and frequency modulated (FM) radios, wire and mobile subscriber equipment (MSE), tactical computer equipment, and position/navigation (POS/NAV) devices. A discussion on radios and associated equipment

allocated to the combat health logistics units under the operational facility (OPFAC) rules is provided in Appendix F. The Theater Army Medical Management Information System (TAMMIS) supported by the tactical computer hardware is discussed in Chapter 8.

*a. Staff Responsibilities.* Each unit staff element is responsible for adhering to signal support policies, procedures, and standards in their daily operations. The unit's operations section/communications designee coordinates telecommunications interface requirements with higher headquarters and with the supporting signal unit.

*b. Communications Support.* Communications support for organizations within a TO is based upon a unit's level of operations. Signal support for a COMMZ unit 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. Units assigned to a corps will request signal support through the corps Assistant Chief of Staff, G3 (Operations and Plans) and will be supported by the corps signal brigade.

*c. Mobile Subscriber Equipment Area Communications System.* Mobile subscriber equipment is the area common-user voice communications system within the corps. It is the backbone of the corps system and is deployed from the corps rear boundary forward to the maneuver battalion's main command post. It provides a secure mobile, survivable communications system capable of passing voice, data, and FAX throughout the corps. Additionally, it provides a direct interface to EACs, other Services, NATO, combat net radios (CNRs), and commercial communications systems. This system is composed of multiple communications nodes with network features which automatically bypass and reroute communications around

damaged or jammed nodes. It integrates the functions of transmission, switching, control, and terminal equipment (voice and data) into one system and provides the user with a switched telecommunications system extended by mobile subscriber radiotelephones. Nodes are deployed in the AO based on geographical and subscriber density factors. Node centers (NCs) are the building blocks of the network. Extension switches permit wire-line terminal subscribers (telephone, FAX, and data) to enter into the total area communications system. Radio access units (RAUs) let the users of mobile subscriber radiotelephone terminals (MSRTs) communicate with other mobile and wire telephone users throughout the AO. The system control centers (SCCs) provide the processing capability to assist in overall network management. The MSE system lets subscribers communicate with each other using fixed directory numbers regardless of a subscriber's battlefield location. The MSE system is comprised of the following five functional areas:

- Area coverage.
- Subscriber terminals.
- Wire subscriber access.
- Mobile subscriber access.
- System control.

The combat health logistics organizations participate in the first four of the functional areas.

(1) *Area coverage.* The MSE system provides common-user support to a geographic area, as opposed to dedicated support to a specific unit or customer. The hubs of the system are called nodes and are under control of the corps/COMMZ signal officer.

(2) *Subscriber terminal (fixed).*

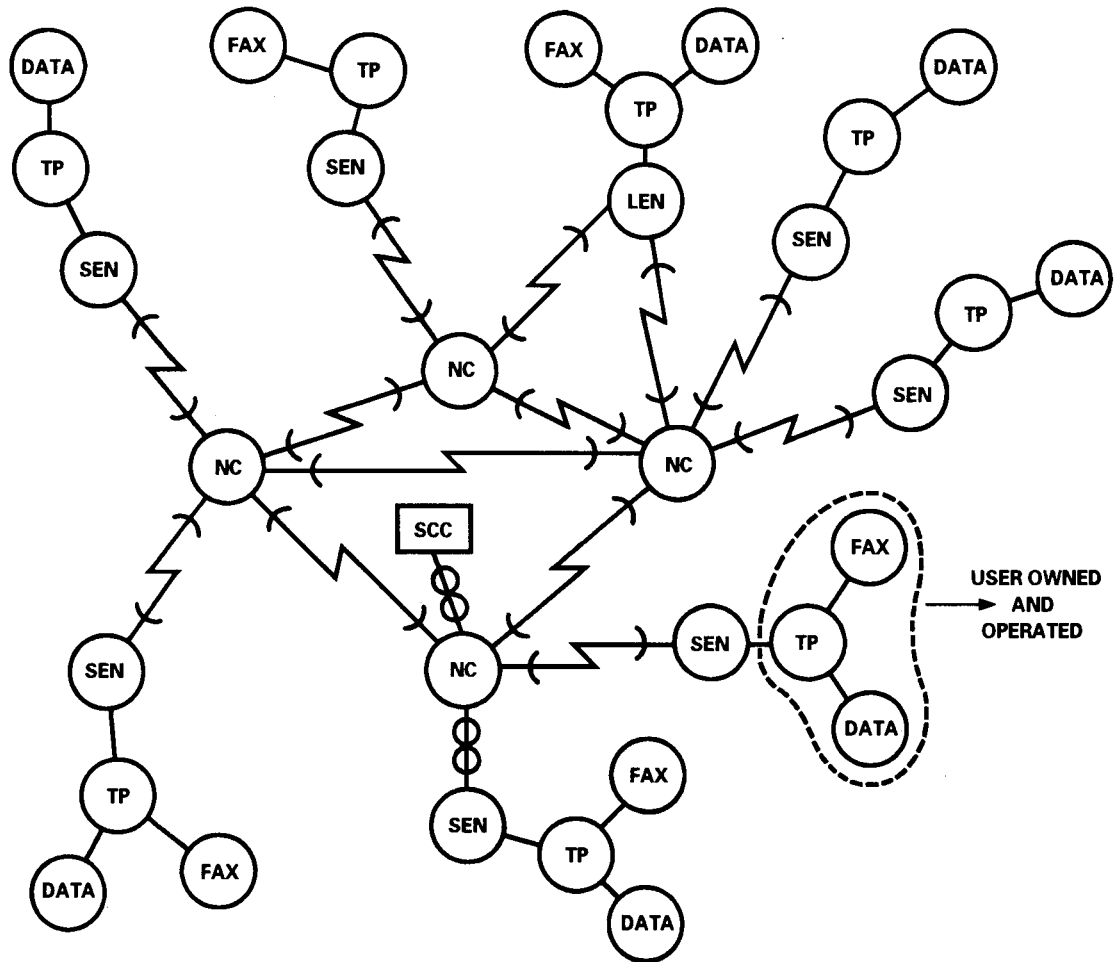
The MSE telephone, mobile radiotelephone, FAX, and data terminal, as part of the area common-user system (ACUS), are user-owned and operated. The using unit is responsible for running wire to the designated junction boxes. These boxes tie the unit's MSE telephones into the extension switches which access the system. The subscriber terminals used by the unit are digital, four-wire voice, as well as data ports (of TA-1035 digital nonsecure voice terminals [DNVTs] for interfacing the AN/UXC-7 FAX, the Tactical Army Combat Service Support Computer System (TACCS), the Army Tactical Command and Control System with Common Hardware and Software (ATCCS-CHS), and the unit-level computer (ULC) as depicted in Figure 7-1.

(3) *Wire subscriber access.*

Wire subscriber access points provide interface between fixed subscriber terminal equipment owned and operated by users and the MSE area system operated by the supporting signal unit. Figures 7-2 (page 7-4), 7-3 (page 7-4), and 7-4 (page 7-5) show the MSE switchboard configurations through which combat health logistics units may tie into the area system. The two types of interface equipment are—

- The signal distribution panel (junction box) J-1077. Each panel provides up to thirteen subscriber access points.
- Remote multiplexer combiners which provide access for eight subscriber access points.

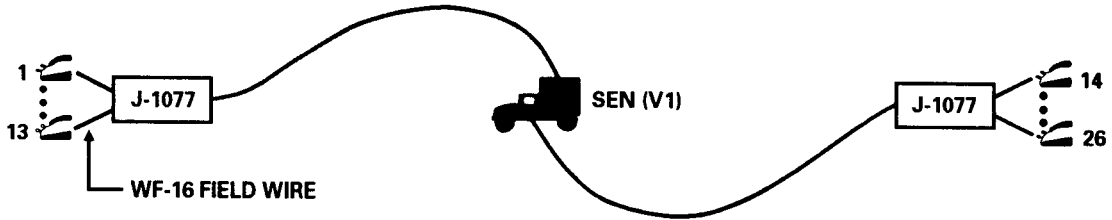
The using unit is responsible for installing and operating fixed subscriber terminal instruments (DNVT TA-1035). It must also install and maintain the WF 16 field wire from the instruments to the interface point (J-1077 distribution panel). See FM 11-30 for definitive information pertaining to an MSE area communications system.



<b>LEGEND:</b>		<b>NC</b>	<b>NODE CENTER</b>
<b>DATA</b>	TACTICAL ARMY CSS COMPUTER SYSTEM / ARMY TACTICAL C2 SYSTEM / UNIT-LEVEL COMPUTER	<b>SCC</b>	<b>SYSTEM CONTROL CENTER</b>
<b>FAX</b>	AN UXC-7 FACSIMILE	<b>SEN</b>	<b>SMALL EXTENSION NODE (SWITCHBOARD)</b>
<b>LEN</b>	LARGE EXTENSION NODE (SWITCHBOARD)	<b>TP</b>	<b>DIGITAL NONSECURE VOICE TELEPHONE (DNVT-TA1035 U)</b>

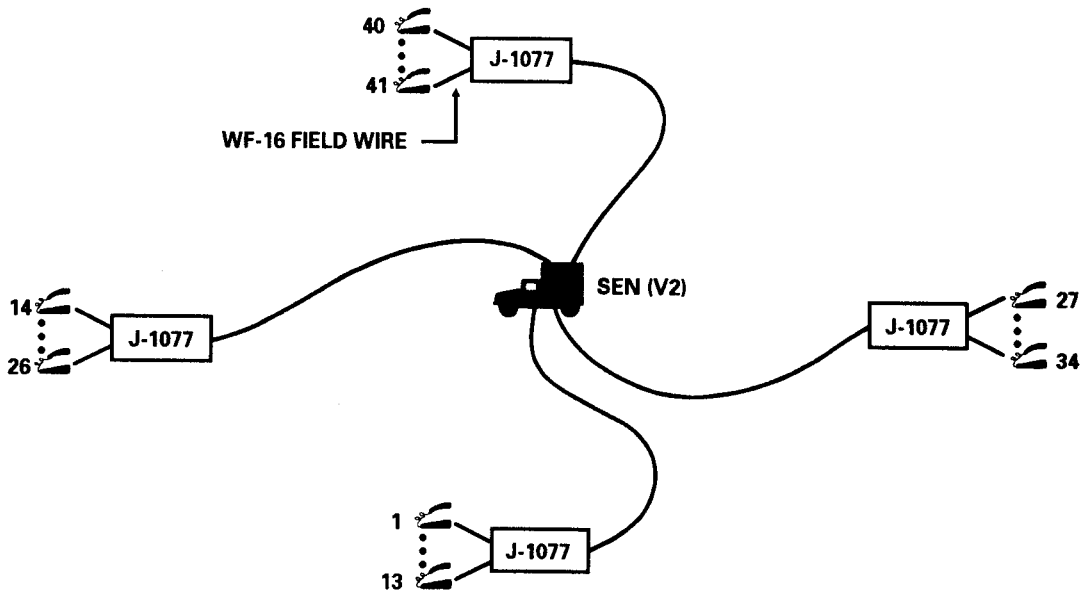
Figure 7-1. Sample of fixed subscriber terminals.





LEGEND:  DIGITAL NONSECURE OR SECURE VOICE TERMINAL

Figure 7-2. Small extension node switch interface (V1).



LEGEND:  DIGITAL NONSECURE OR SECURE VOICE TERMINAL

Figure 7-3. Small extension node switch interface (V2).

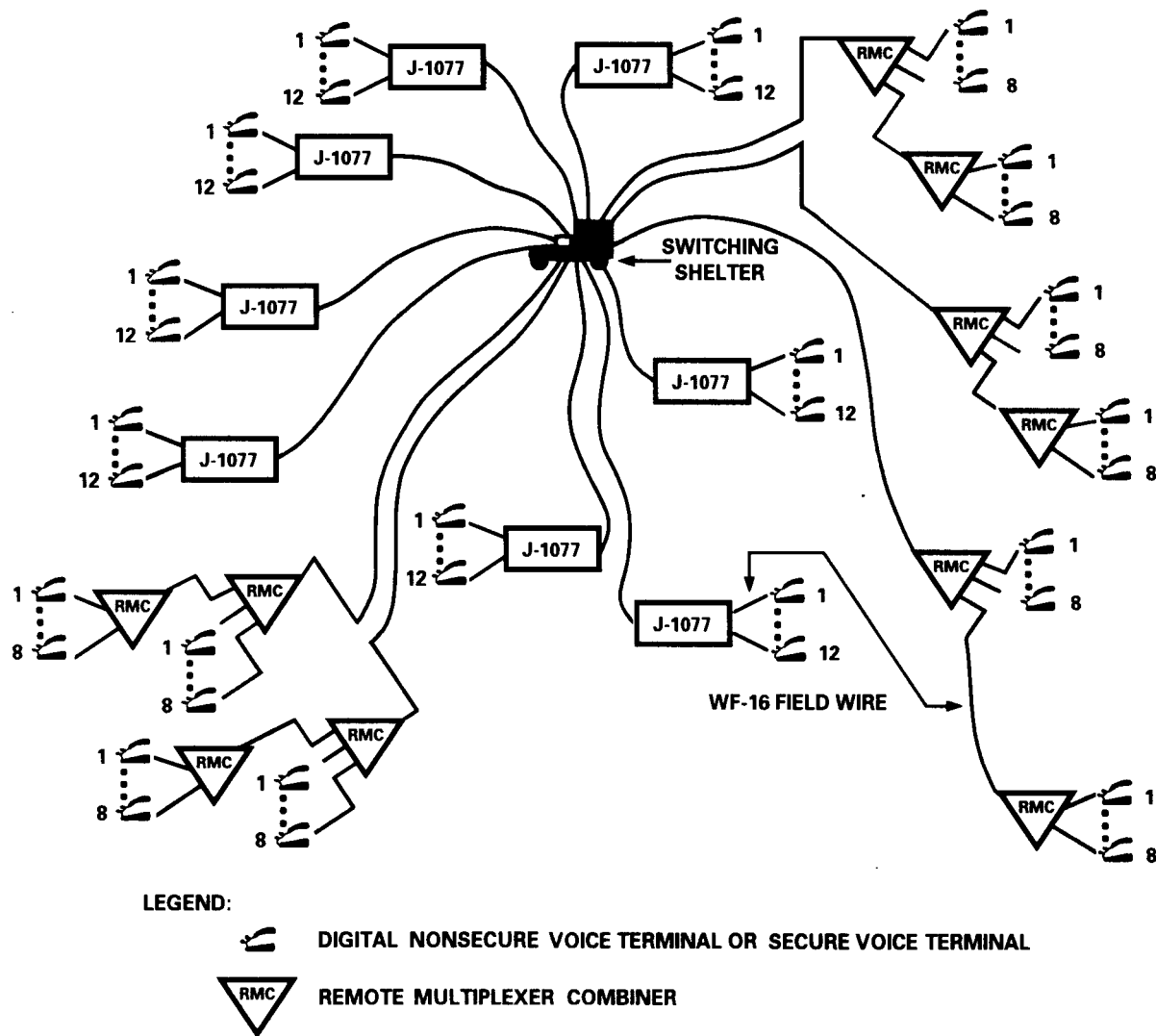


Figure 7-4. Large extension node switch interface.

(4) *Mobile subscriber terminal access.* The mobile subscriber terminal is the AN/VRC-97 MSRT. This piece of equipment consists of a very high-frequency radio and a digital secure voice terminal; it is a vehicle-mounted assembly.

The MSRT interfaces with the MSE system through an RAU. The primary use of the MSRT is to provide mobile subscriber access to the MSE area network. Figure 7-5 is a typical MSRT interface into the area system.

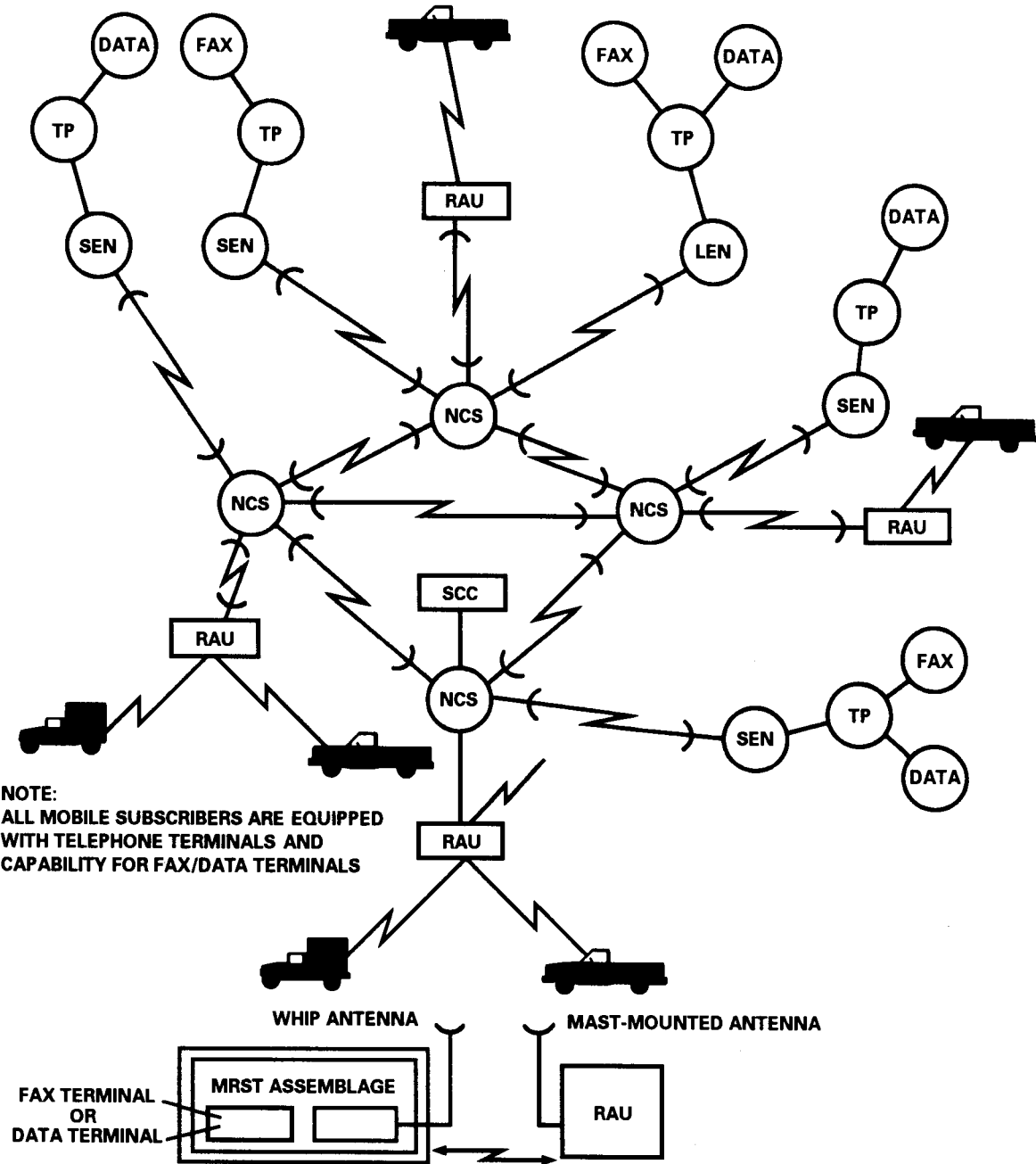


Figure 7-5. Typical MSE connectivity and MSRT interface.

d. *Combat Net Radio System.* The CNR equipment includes both the improved high-frequency radio (IHFR) system and the single channel ground and airborne radio system (SINCGARS). The primary use of the CNR system is voice transmission of C2 information and the secondary use is data transmission. Data transmission will be required when data transfer requirements cannot be met by the MSE system. The improved high-frequency AM radio series provide mid-to-far-range communications capability. They interface with other AM high-frequency radios and have push-button frequency selection. The SINCGARS series' FM radios are designed for simple and quick operation using a 16-element keypad for push-button tuning. They are capable of short-range operation for voice or digital data communications. The SINCGARS radios, using single-channel operations, interface with the AN/VRC-12 series radios. They can operate in a jam-resistant, frequency-hopping mode.

e. *Radio Nets.* Combat health logistics organizations and their staff depend on both AM and FM radios and area communications systems for mission accomplishment. The allocated radios consist of AN/VRCs 87A, 88A, 89A, and 90A and the AN/GRCs 193A and 213. These radios allow the commander(s) to operate in the battalion command net, his company's command net, the supporting higher command net, and the supported operations net.

f. *Signals Security.* As part of the overall security program, combat health logistics units must practice signals security (SIGSEC). The unit operations officer is responsible for SIGSEC and communications security (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 20 seconds, if possible).
- Reporting all COMSEC discrepancies to appropriate authorities.

## CHAPTER 8

## THEATER ARMY MEDICAL MANAGEMENT INFORMATION SYSTEM

### 8-1. General

a. The TAMMIS supports the information management requirements of field medical units in OOTW and war. It is an automated, on-line, interactive microcomputer system designed to assist commanders and staff by providing timely, accurate, and relevant medical information in the following areas:

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

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 each part of the system through system setup files; the user will 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 flexible communication capabilities and can relay information between units in various ways. The preferred medium, however, involves direct communication between computers through a military communications network. When direct electronic communications links are not available, users may pass information by courier via floppy diskette, tape, or hard copy.

d. In this chapter only those systems which support the CHLS mission in the TO are addressed. The MEDPAR and MEDREG systems will not be discussed.

### 8-2. The Medical Assemblage Management System

a. The MEDASM module of TAMMIS will automate the management of medical assemblages for TOE medical units responsible for their storage and maintenance. It will track overages, shortages, quality control information, and storage locations for each assemblage. This information will then be used by MEDASM to provide the unit commander with the readiness status of his medical assemblages.

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

(1) *Assemblage management process.* This process includes a grouping of individual processes which are used to accomplish item management, allowance management, and quality control management. The result of the collective management of these individual areas allows accurate predictions of unit readiness based on asset availability.

(2) *Request, receipt, and due-in management.* This management process includes separate processes which expedite ordering of shortage items, placing of orders on the correct supply source, recording receipts, and managing aged orders for required items.

(3) *System setup procedures.* This area includes a group of processes which define

the operating environment to the assemblage management system. These procedures describe the parent unit, its supported assemblages, sources of supply support, and routine ordering processes.

(4) *User-designed reports.* These reports allows the user to create, modify, delete, and print reports of his own design. Data element fields from as many as four separate files can be joined into one report. The user can also print the system file structure and the printable fields within each file.

### 8-3. The Medical Maintenance System

a. The MEDMNT system supports the scheduled maintenance and repair of medical equipment essential for treating patients. The MEDMNT system is designed to operate at the DMSO within the US Army divisions, at the MEDLOG battalions (forward and rear), 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. In the MEDLOG battalions (forward and rear), the MEDMNT system will operate on the Corps/Theater Automated Support Center Phase II (CTASC II) computer. In all other locations (DMSO and TOE hospitals), the MEDMNT system will operate on ATCCS-CHS.

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

(1) *Work order processing.* 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 MEDMNT personnel.

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

(3) *Periodic processing and reporting.* This provides a monthly performance report or scheduled and unscheduled maintenance service report to be used by local management or higher commands. It also produces a Materiel Condition Status Report (DA Form 2406) which could be passed to the Standard Army Maintenance System (SAMS).

(4) *Command and control reporting.* This provides command interest information concerning scheduled and unscheduled maintenance service performance. It provides the commander with up-to-the-minute status of all readiness-significant items of medical equipment. This information may then be sent to the appropriate command level via automatic file transfer.

(5) *Maintenance system setup procedures.* These procedures define the local environment used to control system processing by identifying supporting activities and supported customer and by processing default data.

### 8-4. The Medical Supply System

a. The MEDSUP system 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 the Special Forces Group Medical Supply Office, at the MEDLOG battalions (forward and rear) and TOE hospitals within the corps and COMMZ. At the MEDLOG battalions, TAMMIS will operate on the CTASC II which is a mini-mainframe computer. At all

other locations (such as DMSO and TOE hospitals), TAMMIS will run on the ATCCS-CHS. The MEDSUP system interfaces with Standard Army Management Information System, specifically DA Movement Management System-Redesign (DAMMS-R), Combat Service Support Control System (CSSCS), Standard Army Retail Supply System (SARSS), and Standard Property Book System-Revised (SPBS-R).

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

(1) *Customer processing.* This 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) *Requisitioning, receiving, and dues-in.* This 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) *Maintaining local stocks, quality control, and reporting.*

(a) This 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) It allows the user to—

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

adjustments.

- Perform inventory reports.
- Produce inventory reports.

(c) It 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) It enables the user to—

- Obtain information for current stock status and process catalog changes.
- Perform monthly summary purge and create the Standard Financial System (STANFINS) 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 transaction history, or demand history.* This allows the user to—

- View current stock status, due in or due 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.* This 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 archive file processing.
- Build an update cost file.



expense file.

- Update the elements of

(6) *Reviewing exceptions referred to manager.* This 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.* This allows the user to create, modify, delete, and print user designed temporary reports.

## APPENDIX A

**CLASS VIII STRATEGIC LOGISTICS****A-1. Class VIII Strategic Operations**

a. The strategic logistics system for Class VIII is operated within CONUS by USAMMA and the Defense Logistics Agency (DLA) depot system. The USAMMA coordinates Class VIII support of the theater with the TMMMC and DLA (Defense Personnel Support Center [DPSC]). The support consist of procurement and shipment of preplanned medical supply packages in support of deploying medical units. The resupply packages are primarily modular medical assemblages, chemical defense, and medical resupply packages for hospitals. The USAMMA also controls the management and release of Army reserve stocks to the theater.

b. The USAMMA provides medical logistics support teams (MLST) to support reception operations at ports of debarkation. The MLST coordinates the integration of medical information management systems modernization packages for the medical force structure. Once deployed to an AO, these teams are under operational control of the TMMMC or a designated medical C2 unit.

c. The USAMMA provides depot-level medical maintenance and rebuilds medical equipment. They also coordinate for repair parts for medical equipment.

**A-2. Customer Assistance**

a. Customer assistance may be requested from the USAMMA at the following address:

Commander  
US Army Medical Materiel Agency  
Fort Detrick  
Frederick, MD 21701-5001

b. Customer assistance in specific areas may be addressed to the appropriate office. Office titles and symbols and their Defense Switched Network (DSN) and/or commercial numbers are provided for your information.

Commander  
MCMR-ZA  
DSN 343-7461 or 301-619-7461

Chief of Staff  
MCMR-ZB  
DSN 343-7461 or 301-619-7461

Maintenance Engineering and Operations Directorate:

- Director  
MCMR-M  
DSN 343-7441 or 301-619-7441

- Medical Maintenance Newsletter (FOCUS)  
DSN 343-4366/4370
- Technical Manuals/Bulletins  
DSN 343-4366
- MEDSTEP  
DSN 343-4368
- TMDE Program  
DSN 343-4381/4378
- DEPMEDS Repair Parts Support Kits  
DSN 343-4381/4378
- Maintenance Parts List (TB 8-6500-MPL)  
DSN 343-4382
- Technical Assistant Research/Manufacturer Manuals  
DSN 343-4365
- Repair Parts Support for Reportable Medical Equipment  
DSN 343-4367
- DEPMEDS/MF2K Fielding Team Support  
DSN 343-4381
- Health Services Maintenance Technician (Warrant Officer Issues)  
DSN 343-4375
- Medical Equipment Containerization  
DSN 343-4368
- On-Site Maintenance Support  
DSN 343-4368
- Repair Parts Support for Contingency Missions  
DSN 343-4367

Depot-Level Maintenance Services:

- Repair, Calibrations, and Refurbishment Services
- MEDSTEP Issue/Loans (End-items)

- Repairable Exchange (Modules/PCBs, and so forth)
- On-Site Support Services
- Diagnostic Imaging Acceptance Inspections
- X-Ray Tube Repair/Rebuild Services
- Audiometric Equipment Repair and Calibration
- Oxygen Regulator Exchange Program
- Medical Chest Refurbishment Program
- Dental/Surgical Handpiece Rebuild Services
- Defense Distribution Region West—Tracy, CA  
DSN 462-9556 or 209-832-9562
- Tobyhanna Army Depot  
DSN 795-7744 or 717-894-7744
- Defense Distribution Depot Ogden  
DSN 352-6774 or 801-399-6774

Operations and Support Directorate:

- Director  
MCMR-O  
DSN 343-4308 or 301-619-4308
- Supply Operations Division  
MCMR-OC  
DSN 343-4307
- Technical Operations Division  
MCMR-OC  
DSN 343-4121
- TAMMIS Tape Distribution  
DSN 343-4319
- Acquisition Advice Codes ("W" and "J" Reports)  
DSN 343-4321

- Method of Destruction Coded  
DSN 343-4322
- Medical Support Enhancement Program  
DSN 343-4314
- Medical Cataloging (Data Management)  
DSN 343-4311
- DA Supply Bulletins (8-75 Series)  
DSN 343-4307/4313
- DA Supply Catalogs (6545)  
DSN 343-4318/4313
- USAMMA Newsletter  
DSN 343-4313
- Quality Control Messages  
DSN 343-4121/2045/4305
- Chemical Defense Materiel  
DSN 343-4300
- Safe Medical Devices Act  
DSN 343-4121
- Unit Assemblages Floppy Disk, Listings, and Hand Receipts  
DSN 343-4318/4315
- Medical Catalog CD-ROM  
DSN 343-4308
- Industrial Base Maintenance Contract  
DSN 343-4121.1204514305
- Pharmaceutical Consultant  
DSN 343-4121
- Medical Services Information Logistics System (MEDSILS) Project  
DSN 343-4306

Materiel Acquisition Directorate:

- Director  
MCMR-E  
DSN 343-7403 or 301-619-7403

- Table(s) of Distribution and Allowances (TDA) Acquisition, Medical Care Support Equipment (MEDCASE), Capital Equipment Expense Program (CEEP) and Shared Procurement  
DSN 343-7403
- Technical Support  
MCMR-ETS  
DSN 343-7403
- TOE Acquisition & Acquisition Life Cycle Management  
MCMR-ETO  
DSN 343-4363
- Applied Medical (Laboratory/Dental)  
DSN 343-4357
- Assemblages (Laboratory/Dental)  
DSN 343-4357
- TMDE  
DSN 343-4357
- Biological  
DSN 343-4357/4361
- Pharmaceuticals  
DSN 343-43571436114362
- DEPMEDS  
DSN 343-4359
- Applied Medical (Anesthesia/Optical/Veterinary/X-Ray/General Medical/Preventive Medicine/Chemical Defense Sterilizers)  
DSN 343-4361
- Assemblages (Anesthesia/Optical/Veterinary/X-Ray/General Medical/Preventive Medicine/Chemical Defense/Sterilizers/Field Teams [Non-DEPMEDS])  
DSN 343-4361
- Applied Medical (Training Devices/Chemical Defense/General Medical/Evacuation/Blood/[Non-DEPMEDS] Refrigeration/Resuscitation/Special Forces/Optical)  
DSN 343-4362
- Assemblages (Chemical Defense/General Medical/Evacuation/Blood/[Non-DEPMEDS] Refrigeration/Resuscitation/Special Forces/Optical/MODMED)  
DSN 343-4362

Readiness Directorate:

- Director  
MCMR-R  
DSN 343-2352 or 301-619-2352
- MF2K  
MCMR-RM  
DSN 343-7577
- Logistics Assistance Program  
DSN 343-7577
- DEPMEDS Fielding/Displacement  
DSN 343-7577
- Materiel Fielding Teams  
DSN 343-7577
- Materiel Transfer Teams  
DSN 343-7577
- Medical Unit, Self-Contained, Transportable (MUST)  
DSN 343-7577
- Command Regulated Items (AAL A)  
DSN 343-7161
- DEPMEDS Requisition Process  
DSN 343-7161
- Excess Medical Materiel Reported to USAMMA  
DSN 343-7161
- Assembly Management Inquiries  
DSN 343-7161
- Inventory Management Inquires (War Reserve)  
DSN 343-7451
- Materiel Obligation Validation (MOV)  
DSN 343-7161
- Requisitioning (RIC-B69), Due In/Due Out  
DSN 343-7161
- Sets, Kits and Outfits (SKO) Requisitions  
DSN 343-7161

## APPENDIX B

## COMBAT HEALTH LOGISTICS MANAGEMENT IN JOINT OPERATIONS

### B-1. Logistics Functions, Support Responsibilities, and Requirements

Logistics functions should be performed in as routine a manner as possible in war and OOTW. Logistics support responsibilities between Commanders in Chief (CINCs) for the various C2 relationships can be found in Joint Publication 4-02.1. Logistics support requirements involve the broad areas of CHS, supply maintenance, transportation, general engineering, and other services. Services consist of various functions and tasks provided by service troops and the logistical community that are essential to the technical management and support of a force. Unless otherwise directed by the National Command Authorities (NCA), the implementation and execution of logistics functions remains the responsibility of the Services and the Service component commander.

### B-2. Responsibilities

#### a. Authority and Control.

(1) Under conditions short of crisis or war, combatant CINCs are authorized to exercise directive authority over logistics operations within their AOR. This authority is designed to ensure effective execution of approved OPLANs, provide efficiency and economy in operations, and prevent or eliminate unnecessary duplication of facilities and overlapping of functions of component commands. The CINCs' directive authority over logistics operations does not release the Services from their responsibility to man, equip, train, and sustain their Service components.

(2) Under wartime or OOTW, or when critical situations mandate diversion from the normal logistics process, this authority is

expanded to authorize combatant CINCs to use all necessary facilities and logistics resources for the accomplishment of their missions.

b. *Single-Service Logistics Support.* Each Service is responsible for the logistics support of its own forces except when logistics support is otherwise provided for by agreements with national agencies, allies, or coalition partners, or by assignments to joint operations.

c. *Transfer of Functions and Facilities Among Services.* The combatant CINC has the authority to issue and implement directives to transfer logistics functions between or among the Service components within the AOR under wartime or OOTW. This authorization of directive authority is not intended to abrogate Service responsibility for logistics support. Transfer of function coordination will be accomplished through the Service component commands or directly to the headquarters of the appropriate Service. The implementation of such a directed transfer, including administrative and procedural aspects, is the responsibility of the Service component commanders involved. The combatant CINC retains the responsibility for overseeing and resolving issues.

### B-3. Single Integrated Medical Logistics Manager

a. Combat health logistics is normally a Service responsibility. However, in joint operations, a SIMLM system may be designated to provide central logistical support to all participating Services in the combatant CINC's AOR. As the dominant user, the US Army has been formally tasked by DOD to perform the peacetime SIMLM mission in the European and Korean theaters. Under wartime or crisis conditions, the US Army, in all probability, will



be the dominant Class VIII user and must plan for the SIMLM mission.

*b.* The SIMLM system encompasses the provision of medical supplies, medical equipment maintenance and repair, blood management, and optical fabrication to all joint forces within the TO, except Navy grey haul ships. Combat health logistics can be provided to Navy hospital ships for common, demand-supported medical supplies in the later stages of theater development. The activation of the SIMLM mission is dependent upon the Time-Phased Force Deployment List supporting the contingency. Refer to Chapters 2 through 6 for a discussion on CHLS organizations and their theater support roles.

#### **B-4. Planning**

*a.* The combatant CINC is responsible for effective coordination of supply support between the Service components within his AOR.

When practical to improve economy of effort, common item support may be assigned to a Service component command, normally the dominant user. The combatant CINC is also responsible for the allocation of critical logistics resources within the command. He ensures that statements of the requirements of the assigned forces are prepared and submitted in accordance with existing directives of the SECDEF, the Secretaries of the Military Departments, and the Chiefs of the Services.

*b.* As a member of the CINC's staff, the command surgeon has primary responsibility for planning CHS. Planning must be concurrent with and in agreement with the contingency operational plans. Field Manuals 8-55 and 8-42 provide an example of those things to be considered when developing the plan. The combat health logisticians must plan to perform the SIMLM functions. Also, combat health logisticians must anticipate that future military operations will be joint operations and conducted from CONUS.

## APPENDIX C

**SAMPLE TACTICAL STANDING OPERATING PROCEDURE****C-1. Tactical Standing Operating Procedure**

This appendix provides a sample TSOP format which can be used as a basis in the development of TSOPs for the theater combat health logistics units. This sample TSOP should not be considered as all-inclusive. This information and the unit mission training plan are good starting points for developing the TSOP. It may be supplemented with information and procedures required for operating within a specific command, contingency, or environment.

**C-2. Purpose of the Tactical Standing Operating Procedure**

The TSOP prescribes policy, guidance, and procedures for the routine tactical operations of a specific unit. It should cover broad areas of unit operations but be sufficiently detailed to provide newly assigned personnel the guidance required for them to assume their new positions. A TSOP may be modified by TSOPs and OPLANs/operation orders (OPORDs) of higher headquarters. It applies to a specific unit and all subordinate units assigned and attached. Should a TSOP not conform to the TSOP of the higher headquarters, the higher headquarters' TSOP governs. The TSOP should be periodically reviewed and updated as required.

**C-3. Format for the Tactical Standing Operating Procedure**

a. There is no regulation requiring a standard format for TSOPs; however, it is recommended that a specific unit TSOP follow the format used by its higher headquarters. The TSOP can be divided into sections (specific functional areas or major operational areas). The

TSOP can contain one or more annexes, each of which may have one or more appendixes. The appendixes may each have one or more tabs. Appendixes can be used to provide detailed information on major subdivisions of the annex and tabs can be used to provide additional information (such as report formats or area layouts) addressed in the appendix.

b. Regardless of the format used, the TSOP should follow a logical sequence in the presentation of material. As a minimum, it should discuss the—

- Chain of command, to include succession of command.
- Major functions and staff sections of the battalion.
- Operational requirements.
- Required reports.
- Necessary coordination with higher and subordinate elements for mission accomplishment.
- Programs (such as command information, preventive medicine measures, and CSC).
- Other relevant topics.

c. Pagination of the TSOP can be accomplished by starting with page 1 and numbering the remaining pages sequentially. If the TSOP is subdivided into sections, annexes, appendixes, and tabs, a numbering system that clearly identifies the location of the page within the document can be used. Annexes are identified by letters and are listed alphabetically. Appendixes are identified by numbers and

arranged sequentially within a specific annex. Tabs are identified by a letter and are listed alphabetically within a specific appendix. After numbering the initial sections using the standard numbering system (sequentially starting with page 1 through to the end of the sections), then beginning with the annexes and their subdivisions, they are numbered as the letter of the annex, the number of the appendix, the letter of the tab, and the page number. For example, page 4 of Annex D is written as "D-4"; page 2 of Appendix 3 to Annex D is written as "D-3-2"; page 5 of Tab A to Appendix 3 of Annex D is written as "D-3-A-5". This system of numbering makes the pages readily identifiable as to their place within the document.

d. In addition to using a numbering system to identify specific pages within the TSOP, descriptive headings should be used on all pages to identify subordinate elements of the TSOP.

(1) The first page of the TSOP should be prepared on the unit's letterhead. The remaining pages of the major sections should include the unit identification in the upper right hand corner of the page (for example: "\_\_\_ Medical Battalion, Logistics [Rear]").

(2) A sample heading for an annex is: "ANNEX C (Administration and Personnel) to \_\_\_ Medical Battalion, Logistics (Rear)."

(3) A sample heading for an appendix is: "APPENDIX 2 (Personnel Management) to ANNEX C (Administration and Personnel) to \_\_\_ Medical Battalion, Logistics (Rear)."

(4) A sample heading for a tab is: "TAB A (Award Recommendations) to APPENDIX 2 (Personnel Management) to ANNEX C (Administration and Personnel) to \_\_\_ Medical Battalion, Logistics (Rear)."

e. As the TSOP is developed there may be an overlap of material from one annex to another. This is due in part to similar functions that are common to two or more unit elements. Where overlaps occur, the material presented should not be contradictory. All discrepancies will be resolved prior to the authentication and publication of the TSOP. The TSOP is authenticated by the battalion commander.

#### C-4. Sample Tactical Standing Operating Procedure (Sections)

The information contained in this paragraph can be supplemented. It is not intended to be an all-inclusive listing. Different commands will have unique requirements that need to be included.

a. The first section of the TSOP identifies the specific unit that developed it.

(1) *Scope.* This document establishes and prescribes procedures to be followed by the designated unit and its assigned, attached, or operational control (OPCON) units/elements.

(2) *Purpose.* This document provides policy and guidance for routine tactical operations of this battalion and its assigned, attached, or OPCON units.

(3) *Applicability.* Except when modified by TSOPs and OPLANs/OPORDs of higher headquarters, this document applies to this battalion and to all assigned, attached, or OPCON elements/units for combat operations. In cases of nonconformity, the document of the higher headquarters governs.

(4) *References.* This paragraph can include any pertinent regulations, policy letters, higher headquarters TSOP, or other appropriate documents.

(5) *General information.* This paragraph discusses the required state of readiness of the battalion; primary, secondary, and contingency missions; procedures for operating within another commands AO; and procedures for resolution of conflicts with governing regulations, policies, and procedures.

*b.* The second section of the TSOP discusses the specific organization.

(1) *Organization.* This battalion is organized and equipped IAW the applicable modification TOE.

(2) *Task organization.* Task organization is contingent on the mission identified in the OPORD/OPLAN.

(3) *Organizational charts.* These are contained in Annex A of the TSOP.

*c.* The third section of the TSOP discusses the battalion functions. It supplements the battalion's organizational chart(s). The capabilities of the sections are discussed in Chapter 2, to include related functions in Chapters 3 through 6. For a detailed description of personnel duties, refer to AR 611-201, AR 611-101, and FM 101-5.

*d.* The fourth section of the TSOP pertains to staff operations and is subdivided into annexes.

#### C-5. Sample Tactical Standing Operating Procedure (Annexes)

Annexes are used to provide detailed information on a particular function or AOR. The commander determines the level of specificity required for the TSOP. Depending upon the complexity of the material to be presented, the annex may be further subdivided into appendixes and tabs. If the annex contains broad guidance or does not

provide formats for required reports, paragraphs may be used and the annex need not be further subdivided. However, as the material presented becomes more complex, prescribes formats, or contains graphic material, the annex will require additional subdivision. This paragraph discusses the subdivision of the annex by appendixes. It does not contain examples of subdividing the information presented in the appendixes into tabs. Applicable references, such as ARs, FMs, and TMs, should be provided in each annex. The number of annexes and their subdivisions presented below are not to be considered as an all-inclusive listing. Different commands will have unique requirements, therefore, supplementation of the information presented is permitted.

*a.* Annex A. (*Organizational Charts*).

*b.* Annex B. (*Command Section, Headquarters and Headquarters Detachment, Medical Battalion, Logistics (Rear)*).

(1) *Command responsibilities.* This paragraph discusses the responsibilities of the command staff and the battalion commander. It also outlines the C2 and administrative and logistics support procedures for assigned and attached units.

(2) *Staff responsibilities.* This paragraph lists the headquarter's staff and their duties as prescribed in FM 101-5 and FM 8-10 and any command specific duties.

(3) *Daily operations.* The day-to-day operations shall include a review of battalion activities occurring during the preceding shift and the implementation of directives received from higher headquarters.

(a) The commander and his staff, in the conduct of daily operations, can use personal and telephonic contact to become aware

of personnel, logistical, and administrative problems which may affect the overall battalion operations.

(b) Regularly scheduled meetings and review of reports and programs can be used to monitor the effectiveness and efficiency of battalion operations.

(c) The battalion commander, during command visits or contacts with higher headquarters, can be appraised of the logistical support operations. The battalion commander provides to higher headquarters the battalion's overall Class VIII supply support capability, personnel status, logistical requirements, and other information as he deems appropriate. The battalion commander/staff maintains liaison with the COMMZ supported medical units, the MEDLOG battalion (forward), and COMMZ support organizations.

(d) The battalion commander may activate the tactical operations center (TOC) based on the tactical situation. (See paragraph C-5 e for a discussion of Annex E, Tactical Operations Center.)

(e) This annex should also address the battalion's hours of operation, to include the battalion staff and personnel shifts.

c. *Annex C. Detachment Headquarters, Headquarters and Headquarters Detachment, Medical Battalion, Logistics (Rear).* This detachment provides the C<sup>2</sup> base for the battalion. This annex outlines procedural guidance for, but is not limited to, the following:

- Unit-level administration.
- Reenlistment and extension programs.
- Billeting, to include fire safety, sanitation, and key control.

- activities.
- Welfare and recreational
- Unit supply.
- Security, assignment, accountability, and maintenance of weapons.
- Perimeter security.
- Duty rosters.
- Training.
- Physical fitness.
- Communicable disease control.
- Field sanitation team.
- Field water supply.
- Latrines.
- Uniform Code of Military Justice action.

d. *Annex D. Section Operations.* This annex outlines the S1 (Adjutant), S2/S3 (Intelligence Officer/Operations and Training Officer), S4 (Supply Officer), battalion maintenance, and quality assurance sections' responsibilities and operations. Each section should be identified in a separate appendix.

e. *Annex E. Tactical Operations Center.*

(1) *Definition.* The TOC is the command element of the battalion containing communications and personnel required to command, control, and coordinate battalion operations.

(2) *Purpose.* The purpose of the TOC is to provide a secure area where the

commander and key staff can assemble to estimate the situation, assess the requirements, and react to varying problems, NBC operations, mass casualty situations, and CHS operations.

(3) *Responsibilities.* The battalion commander has overall supervision and control over the TOC. The battalion S2/S3 officer has primary staff responsibility in the absence of the commander. Daily operations of the TOC are the responsibility of the S2/S3 section.

(4) *Operations.* The TOC operates on a 24-hour basis. It is principally staffed by each primary staff section furnishing necessary manpower, as required. The TOC will be adjacent to the communications facility. The TOC should be of sufficient size to allow for establishment of maps, storage of individual weapons and chemical defense equipment, and facilitate communications among the staff. Telephone communications connect the TOC to other staff sections within the battalion, higher headquarters, MEDLOG battalion (forward) and other appropriate units. The CNR will also provide the appropriate communications for CHLS. Access to the TOC is strictly controlled by means of an access roster and, if available, security badges. Only essential personnel and authorized visitors are allowed to enter. Each battalion element maintains a TSOP on the organization and operation of its section. All elements within the TOC maintain, when appropriate, a current situational map of their specific operations. Discussion and portrayal of tactical plans outside of the security area are prohibited.

(5) *Composition.* This is a listing of those personnel comprising the TOC. It normally includes the commander, executive officer, S2/S3, command sergeant major, and other specific staff members, as required.

(6) *Configuration.* This is a schematic representation of the physical layout of the

TOC. It can be included as an appendix to the annex.

(7) *Message center.* This paragraph establishes procedures for handling classified messages; provides delivery and service of IMMEDIATE and FLASH messages to the appropriate staff section; and provides procedures for preparing outgoing messages and delivery service to the servicing message center for the transmission of outgoing messages.

(8) *Appendixes.* The addition of appendixes to this annex is permissible and may cover topics such as—

- Schematics of the physical layout.
- Change of shift procedures.
- Security requirements, to include guard duties and identification badges.
- Briefing requirements.
- Overlay preparation.

(9) *Camouflage.* This paragraph discusses what camouflage procedures are required, to include type and amount of required camouflage materials (such as nets and terrain features); display of the Geneva Conventions distinctive emblem on facilities and vehicles; and other pertinent information. Refer to FM 8-10 for information on the camouflage of medical units.

*f. Annex F. Operations.* This annex establishes procedures for the operations section within the battalion and provides a basis for standardization of CHLS operations in a tactical environment. It is essential that these procedures be standardized to ensure common understanding, facilitate control and responsiveness,

and enhance mission accomplishment. Although intelligence and battalion defense are functions of the battalion operations section, they may be addressed in separate annexes. For simplicity and coherency, these areas are discussed in paragraphs *g* and *i*, respectively. Commanders may elect to consolidate the S2/S3 functions into a single annex. Appendixes to this annex should include the following areas:

(1) *Operational situation report.* Requirements for format, preparation, and submission of this report are discussed in this appendix.

(2) *Operations security.* This appendix provides the guidance and procedures for secure planning and conduct of logistics support operations.

(a) *Responsibilities.* The commander is ultimately responsible for denying information to the enemy. The operations officer is responsible to the commander for the overall planning and execution of operations. He has the principle staff interest in assuming the required degree of operations security (OPSEC) and has the primary staff responsibility for coordinating the efforts of all other staff elements in this regard. The operations officer is responsible for the preparation of the essential elements of friendly information (EEFI) and providing classification guidance. Additionally, the OPSEC officer identifies the priorities for OPSEC analysis and develops OPSEC countermeasures. Coordination is effected with higher headquarters in planning an OPSEC analysis of operations and analyzing EEFI.

(b) *Classified and sensitive information.* Document classification, downgrading, and declassification is the responsibility of the operations section. Classified and sensitive information, such as the status of the forces, readiness condition, equipment status, and other

information relative to the hospital's ability to perform its mission, will be limited to those individuals with a security clearance and the need to know.

(3) *Battalion relocation.* This appendix provides the procedures for battalion relocation. Because of the battalion's limited mobility, transportation support is required from the COMMZ's MMC. The S2/S3 officer, in conjunction with the S4 officer, plans and coordinates the battalion's movement. Considerations should include, but not be limited to, the following:

- Coordination with higher headquarters.
- Tactical situation.
- Transportation requirements availability.
- Convoy operations, to include clearance and security.
- Terrain analysis and site selection.
- Availability of required support (engineer, communications, and supply).

(4) *Communications-electronics.* This appendix establishes communications policies, procedures, and responsibilities for the installation, operation, and maintenance of communications-electronics (GE) equipment. Responsibilities of the CE NCO include—

- Advising the battalion commander and operations officer on CE matters.
- Determining requirements for communications support.
- Radio communications.

- Radio teletypewriter communications.
- Message and communications center service.
- Message handling procedures.
- Wire communications.
- Switchboard operations.
- Communications security and operations.
- Security violations. This prescribes procedures for reporting any event or action which may jeopardize communications security.
- Daily shift inventory.
- Physical security of communications equipment.
- Transmission security.
- Security areas. This discusses access procedures and rosters, access approval requirements, and prohibited items.
- Communications security officers and custodians. The appointment procedures, orders requirements, and duties of personnel are described.
- Safety. This discusses requirements for the grounding of, handling, and storage of COMSEC equipment.
- Power units.
- Emergency destruction of classified operating instructions and associated materials.

(5) *Rear battle responsibilities.* This appendix discusses rear battle responsibilities, task organization, and CHS for reaction/response forces.

(6) *Maintenance of law, order, and discipline.* This appendix should provide applicable regulations, policy, and command guidance on topics such as serious incident reports, notifications and submission format, straggler control, and confinement of military prisoners and enemy prisoners of war (EPW).

*g. Annex G. Intelligence and Security.* This annex pertains to intelligence requirements and procedures and operational security considerations. Appendixes to this annex may include the following subjects:

(1) *Intelligence.* The operations section has the responsibility of collecting information to assist the commander in reaching logical decisions as to the best courses of action to pursue. Essential elements of information (EEI) include, but are not limited to, the location, type, and strength of the enemy threat; location of area of casualty concentration; hospital locations; MEDLOG battalion (forward) location; known or suspected NBC activity; and issues which the commander considers to be EEI.

(2) *Intelligence reports.* The operations section is responsible for disseminating all applicable estimates, analyses, periodic intelligence reports, and intelligence summaries generated within the battalion or received from higher headquarters. Information on submission of reports and suspenses on intelligence products and reports should also be addressed in this appendix.

(3) *Counterintelligence.*

- *Camouflage.* When ordered or directed by the tactical commander all units



will initiate and continually strive to improve camouflage operations of positions, vehicles, and equipment. Noise and light discipline is emphasized at all times.

- *Communications security.*

These measures are enforced at all times. Specific requirements and considerations are included.

- *Signs and countersigns.*

This paragraph outlines procedures for establishing signs and countersigns to be used during hours of darkness. It also includes reporting requirements and procedures if the sign/countersign is lost or compromised.

- *Document security.*

This paragraph discusses the procedures for inventorying, marking, safeguarding, and destroying classified material, both work documents and completed documents. Reporting requirements in the event of compromise are also included.

(4) *Captured personnel, equipment, supplies, and documents.* This appendix provides specific guidance on the handling of captured personnel, equipment, supplies, and documents. The disposition of captured medical equipment and supplies is governed by the Geneva Conventions and is protected against intentional destruction.

(5) *Enemy prisoners of war.* This appendix discusses the unit's responsibilities for EPW surrendered to the medical unit. (These procedures DO NOT pertain to EPW patients captured by other units. Medical personnel DO NOT guard, search, or interrogate EPW while in the CHS channels; guards are provided by nonmedical personnel designated by the tactical commander for these duties.) Until EPW personnel can be evacuated to an EPW collection point, medical personnel should remember and enforce the soldier basic skills: segregate, safeguard, silence, secure, and speed. (The speed

portion of evacuating EPW to designated collection points is of paramount importance to medical units.)

#### NOTE

The treatment of EPW is governed by international and US law and the provisions of the Geneva Conventions. Personnel should be aware of these requirements and have ready access to the applicable regulations and policy guidance.

(6) *Security.* This appendix discusses weapons security, SOI (communications) security, TOC security, and Sensitive Item Status Report policies, guidance, and/or procedures.

*h. Annex H. Battalion Layout.* This appendix discusses the establishment and breakdown of the battalion area. As this is a logistics battalion, a smooth and even flow of logistics support procedures through the areas is necessary.

(1) *Site selection.* This appendix provides information on considerations for site selection, such as amount of terrain required, accessibility, drainage, and coordination requirements.

(2) *Establishment of support function areas.* This can be graphically displayed.

(3) *Establishment of administrative areas and motor pool.* This can be graphically displayed.

*i. Annex I. Battalion Defense.* This annex describes procedures for security of the battalion in a wartime environment. Security should be a part of an integrated defense plan

(base cluster commander and HN base defense plan). Within the theater area, the base cluster and base commanders are appointed by the area commander. These commanders have the overall responsibility for the base cluster defense and base defense organizations and plans. The battalion should be included as a part of the base cluster/base defense plan as established by the base cluster/defense commander. This annex addresses, as a minimum, the following:

- Sustainment operations.
- Defense reaction force(s).
- Battalion movement.
- Terrain management.
- Medical unit self-defense

according to the Laws of Land Warfare. For a comprehensive discussion on the Laws of Land Warfare, refer to FM 8-10 and FM 27-10.

*j. Annex J. Administration and Personnel.* This annex outlines procedures relating to administrative and personnel matters and associated activities.

(1) *Personnel accountability.*

- *Personnel Daily Summary (PDS).* This appendix provides the procedures for preparing and submitting a PDS report. The instructions may include requirements for encrypting the report prior to transmission, specific guidance on time of submission, corrections, or other administrative details.

- *Casualty Feeder Report.* This report is submitted on DA Form 1156. Instructions on the completion of the form and submission requirements are included.

(2) *Personnel management.*

- *Replacements.* Individual replacements will not be readily available during the initial phases of operations. The battalion S1 automatically initiates replacement requests for personnel who are reported on the PDS report as wounded in action, missing in action, or killed in action.

- *Personnel actions.* All personnel actions are channeled through the battalion S1. The company executive officer and first sergeant are the company points of contact. Actions are handled expeditiously and meet suspense dates (tactical situation permitting).

- *Efficiency reports.* This paragraph provides pertinent information on the completion and submission of these reports.

- *Award recommendations.* This paragraph delineates the responsibilities for and guidance concerning the submission of recommendations for awards and for scheduling and conducting award ceremonies.

- *Promotions.* This paragraph discusses the procedures for submitting recommendations for promotion and conducting promotion ceremonies.

- *Correspondence.* All correspondence addressed to higher headquarters is submitted through the battalion S1. Requirements for submission, preparation, and approval are also provided.

- *Personnel records.* This paragraph discusses requirements for coordination for this support and the procedures for having correspondence included in the official military personnel files of personnel assigned and attached.

(3) *Personnel services.* Personnel services are those activities pertaining to soldiers

as individuals. Unless prohibited by the tactical situation, the services listed below are normally available to all assigned and attached elements.

- *Sporting activities; morale and welfare activities.*

- *American Red Cross.*

- *Finance.* Finance units provide individual and organizational support on an area basis. Individual support includes casual payments, check cashing, currency conversion, and pay inquiries. Organizational support covers contracting support and commercial vendor operations and reimbursement of imprest fund cashiers and Class A Agents. Before deployment, units will have officer appointments prepared and an officer trained for Class A Agent duties.

- *Legal services.* Information and specific guidance on administrative boards, court-martial authority and jurisdiction, legal assistance, and general services should be provided.

- *Religious activities.* This includes religious activities, services available from different faiths, and schedule of services.

- *Postal services.* This includes hours of operation and services available.

- *Post exchange services.* This includes hours of operation and availability.

- *Distribution.* Pick up and delivery schedules and any command specific issues and procedures are provided.

(4) *Mortuary affairs.* Commanders at all levels are responsible for the recovery, identification, and evacuation of US dead. This section discusses the responsibilities and pro-

cedures for unit-level mortuary affairs activities for assigned and attached personnel.

- *Responsibilities.* This paragraph discusses unit requirements.

- *Disposition.* Specific guidance on procedures, graves registration collection points, transportation requirements, and the handling of remains are provided.

- *Hasty burials.* Specific requirements for conducting hasty burials, marking the grave, and reporting the location of the grave site are included.

- *Personal effects.* Guidance on the accounting for personal effects and requirements should a hasty burial be required.

- *Disposition of civilian and EPW remains.* The local civilian government is responsible for burial of remains of their citizens. The burial of the remains of EPW should be accomplished in separate cemeteries from US, allied, and coalition personnel. If this is not possible, separate sections of the same cemetery should be used.

- *Contaminated remains.* This paragraph discusses the handling and disposition requirements (including protective clothing), procedures, and marking and reporting of contaminated burial site.

(5) *Public information.* This paragraph contains procedures for obtaining approval on the public release of information.

(6) *Record disposal procedures.* When hostile enemy action is imminent or if retention is prejudicial to the interest of the US, emergency disposal of files will be outlined.

k. *Annex K. Logistics Support Company, Medical Battalion, Logistics (Rear).* This

annex outlines the operational responsibilities and procedures for the various sections of the company. Each section should be identified in a separate appendix. The company headquarters may contain subjects identified in Annex C of the TSOP, to include food service operations. Food service operations should include, but not be limited to, the following:

- Organization.
- Hours of operation.
- Tactical feeding procedures.
- Safety.
- Liquid waste, garbage, and rubbish disposal.
- Sanitation.
- Ration accountability.
- Training.
- Kitchen police.
- References.

*l. Annex L. Distribution Company.*

This annex outlines the operational responsibilities and support procedures for the various sections of the company. Each section should be identified in a separate annex or appendix. The company headquarters annex/appendix may contain subjects identified in Annex C of the TSOP.

*m. Annex M. Nuclear, Biological, and Chemical Defense.* This annex prescribes the policy, guidance, and procedures for NBC defensive measures for personnel, equipment, and supplies.

(1) *Responsibilities.*

(2) *Nuclear, biological, and chemical reporting requirements and procedures.*

- *Contamination avoidance.*

● *Protection.* Protection pertains to those measures each soldier must take before, during, and after an NBC attack to survive and continue the mission. Measures for protection of supplies and equipment are also outlined.

● *Decontamination.* This discusses equipment requirements, procedures, and types of decontamination (such as operational) for personnel and equipment.

● *Mission-oriented protective posture (MOPP).* This appendix provides guidance on garments required for the different MOPP levels and identification procedures for personnel in MOPP.

● *Radiation exposure guidance.* Establishes radiation exposure guidance. Discusses determining what constitutes a radiologic hazard; prescribes acceptable limits of potential casualty-producing doses of radiation; discusses minimizing exposure and protecting against electromagnetic pulses.

● *Masking and unmasking procedures.*

● *Radiological monitoring and survey operations.*

*n. Annex N. Safety.* This annex establishes minimum essential safety guidance for the battalion. It includes—

- Accident reporting.
- Safety measures.
- Emergency procedures.

- Vehicle safety.
- Ground guide procedures.
- Fire prevention and protection.
- Climate and survival training.
- Animal and arthropod hazards.
- Personal protective measures.
- Hearing conservation program.
- Threat of carbon monoxide

poisoning.

*o. Annex O. Civil-Military Operations.*

This annex discusses participation in civil-military operations. Medical elements are often involved in civil-military operations, humanitarian assistance, and disaster relief operations. The activities which may be covered include, but are not limited to—

- Providing Class VIII supply support (for other than combat casualties; for example, pediatric/geriatric patients).

- Providing guidance on developing Class VIII supply support activities in a HN.

- Providing training to HN personnel.

*p. Annex P. Mass Casualty.* This annex outlines procedures to enable the battalion to respond effectively to a variety of emergency, external, and internal disaster situations. In any situation, the battalion should be able to triage and evacuate an unexpected number of casualties. This development plan is the responsibility of the operations section, or as directed by the battalion commander. Procedures should include, but not be limited to, the following:

- Planning and training requirements.

- Personnel positions and duties.

- Location of delayed, immediate, minimal, and expectant areas.

- Evacuation procedures.

- Records and reports.

## APPENDIX D

**MATERIEL IDENTIFICATION****D-1. Classes of Supply (United States)**

<b>Class</b>	<b>Description</b>
I	Subsistence, to include potable water.
II	Clothing, individual equipment, tentage, tool sets and tool kits, hand tools, administrative and housekeeping supplies and equipment. Includes items of equipment (other than principal items) prescribed in authorization/allowance tables and items of supply (not including repair parts).
III	Petroleum, oils, and lubricants (POL). Petroleum fuels; lubricants, hydraulic and insulating oils, preservatives, liquid and compressed gases, chemical products, coolants, deicing and antifreeze compounds, together with components and additives of such products, and coal.
IV	Construction. Construction materials including installed equipment and all fortification/barrier materials.
V	Ammunition. All types (including chemical, radiological, and special weapons), bombs, explosives, land mines, fuzes, detonators, pyrotechnics, missiles, rockets, propellants, and other associated items.
VI	Personal demand items (sundry packages).
VII	Major end items (tanks, vehicles, or aircraft) which are ready for their intended use.
VIII	Medical materiel including medical-peculiar repair parts and equipment. The following subclasses apply to Class VIII:
	1 Controlled substances.
	2 Tax-free alcohol.
	3 Precious metals.
	4 Nonexpendable medical items.
	5 Expendable medical items.
	6 All drugs and related items of Federal Supply Classification 6505 not otherwise restricted.

Class	Description
	7 through 9 Commander-designated controlled items.
	0 USAMMA-controlled sensitive items.
IX	Repair parts and components, to include kits, assemblies and subassemblies and repairable and nonrepairable items required for maintenance support of all equipment.
X	Materiel to support nonmilitary programs such as agricultural and economic development materials not included in Classes I through IX.

**This paragraph implements NATO STANAG 2981.**

## D-2. Comparative Table

Note the differences between the NATO and US classes of supply.

NATO Class of Supply	Description	US Class of Supply	Description
I	Those items which are consumed by personnel or animals at an approximate uniform rate irrespective of local change in combat or terrain conditions. Examples: rations and forages.	I	Subsistence, to include potable water.
		VI	Personal demand items (non-military sales items).
II	Supplies for which allowances are established by tables of organization and equipment. Examples: clothing, weapons, mechanics' tools, spare parts, and vehicles.	II	Clothing, individual equipment, tentage, tool sets and tool kits, hand tools, administrative and housekeeping supplies and equipment. Includes items of equipment, other than principal items, prescribed in authorization allowance tables and items of supply (not including repair parts).

NATO Class of Supply	Description	US Class of Supply	Description
		VII	Major end items: A final combination of end products which is ready for its intended use; principle items such as launchers, tanks, mobile machine shops, and vehicles.
		VIII	Medical materiel including medical-peculiar repair parts.
		IX	Repair parts and components to include kits, assemblies and subassemblies, and repairable and non-repairable items required for maintenance support of all equipment.
III	Fuels and lubricants for all purposes, except for operating aircraft or for use in weapons such as flame throwers. Examples: petroleum products such as gasoline, kerosene, diesel oil, fuel oil, lubricating oil and greases, and solid fuels such as coal, coke, and wood. For Air Force (III A): aviation fuels and lubricants.	III	POL: Petroleum fuels: lubricants, hydraulic and insulating oils, preservatives, liquid and compressed gases, chemical products, coolants, deicing and antifreeze compounds, together with component additives of such products and coal.
IV	Supplies for which initial issue allowances are not prescribed by approved issue tables. Normally such supplies include fortification and construction materials, as well as additional quantities of items identical to those authorized for initial issue (Class II) such as additional vehicles.	IV	Construction: Construction materials to include installed equipment and all fortification/barrier materials.
		X	Material to support non-military programs, such as agriculture and economic development if not included in Classes V to IX.



NATO Class of Supply	Description	US Class of Supply	Description
V	Ammunition, explosives, and chemical agents of all types.	V	Ammunition: Ammunition of all types (including chemical, radiological, and special weapons), bombs, explosives, land mines, fuzes, detonators, pyrotechnics, missiles, rockets, propellants, and other associated items.

**D-3. Federal Supply Classifications (Medical)**

- 6505 Drugs, Biological, and Official Reagents
- 6508 Medicated Cosmetics and Toiletries
- 6510 Surgical Dressing Materials
- 6515 Medical and Surgical Instruments, Equipment, and Supplies
- 6520 Dental Instruments, Equipment, and Supplies
- 6525 X-ray Equipment and Supplies: Medical, Dental, Veterinary
- 6530 Hospital Furniture, Equipment, Utensils, and Supplies
- 6532 Hospital Surgical Clothing and Related Special Purpose Items
- 6540 Optician's Instruments, Equipment, and Supplies
- 6545 Medical Sets, Kits, and Outfits
- 6550 In Vitro Diagnostic Substances, Reagents, Test Kits and Sets
- 6600 Instruments and Laboratory Equipment

## APPENDIX E

**BLOOD REPORTING SYSTEM****E-1. The Blood Report**

a. The BLDREP provides a standardized message format that is used to report blood inventories, request blood, and project requirements. The BLDREP in its full or abbreviated form is used throughout all echelons of the blood management system.

b. All MTFs, including Echelon II will use the standard BLDREP format. The Joint Interoperability of Tactical Command and Control Systems (JINTACCS) Automated Message

Preparation System (JAMPS) and the Message Text Format Editor (MTFE) are two software programs that may be available to automate the BLDREP formatting. The Defense Blood Standard System (DBSS) will eventually provide the capability to generate these reports.

c. Depending upon the situation, telephonic BLDREPs or written BLDREPs delivered by courier may be used in the TO. To help reduce the length of the messages, a master menu of blood report codes has been standardized as listed in Figure E-1.

**MANAGEMENT:**

- A. Joint Blood Program Office (JBPO)
- B. Area Joint Blood Program Office (AJBPO)
- C. Armed Services Whole Blood Processing Laboratory (ASWBPL)
- D. Blood Donor Center (BDC)
- E. Blood Products Depot (BPD)
- F. Blood Transshipment Center (BTC)
- G. Blood Supply Unit (BSU)
- H. Medical Treatment Element (MTE)
- I. Naval Vessel (NV)

**PRODUCTS:**

- J. Red Blood Cells (RCZ)
- K. Whole Blood (WBZ)
- L. Frozen Red Blood Cells (RCF)
- M. Fresh frozen plasma (PFF)
- N. Frozen Platelets (PCF)

**PRODUCTS (Continued):**

- O. To Be Determined
- P. To Be Determined

**BLOOD GROUPS:**

- Q. Random Group and Type O,A,B
- R. Random Group and Type O,A
- S. Random Type O
- T. Random Type A
- U. Random Type B
- V. Random Type AB

**TIME FRAME:**

- W. Required within 12 hours
- X. Required within 24 hours
- Y. Required within 48 hours

**MISCELLANEOUS:**

- Z. Not applicable or see remarks

*Figure E-1. Blood report master menu.*

d. The Theater Army Blood Program manager may assign brevity codes and designate those lines to be utilized in daily reporting. Locations of activities will be reported *only* on the *first* report or upon relocation.

e. Requests for RBCs should normally be based on a random distribution of blood groups

(that is, 40 percent O positive, 10 percent O negative, 35 percent A positive, 5 percent A negative, 8 percent B positive, 2 percent B negative). At Echelons III and IV, ABO and Rh group-specific RBCs should be transfused whenever possible. Certain designated MTFs will require Group O RBCs only. Upon activation, each MTF should request a base load of blood components.

f. Medical treatment facilities should submit a daily BLDREP to their blood supplier. A complete BLDREP should reflect the following:

- Line 1: Day-time-zone of BLDREP.
- Line 2: Reporting unit's name or designator code.
- Line 3: Reporting unit's activity brevity code letter.
- Line 4: Unit location in latitude/longitude (LAT/LONG), universal transverse Mercator (grid) (UTM), or place name.
- Line 5: Naval Vessels ONLY: Projected location in LAT/LONG or place name for delivery of blood products.
- Line 6: Naval Vessels ONLY: Estimated time of arrival (day, time, time zone, month, and year at the projected location).
- Line 7: Name or designator code of the unit or activity reporting the status of blood supplies if other than message originator.
- Line 8: Reporting unit's activity brevity code letter if other than message originator.
- Line 9: Number and code of each blood product on hand. (Include blood and blood products set up for transfusion.)
- Line 10: Number and code of each blood product required. (Daily request should be the number of units of blood/blood products needed to replace what was used over the 24-hour reporting period.)

- Line 11: Estimate of total number of blood products by group to expire in next 7 days. (This becomes extremely important when scheduled combat operations are delayed or extended and when using frozen blood).

- Line 12: Estimate of total number of blood products by group required for resupply in the next 7 days. (This number is normally 7 times the amount of blood product transfused during the past 24 hours. However, this number should reflect future combat operations. Offensive operations, in contrast to defensive operations, will result in increased blood utilization. Close coordination between intelligence/operations centers and blood managers is essential.)

- Line 13: Narrative. The number of units received, transfused, shipped, destroyed, and expired within past 24 hours. Also, include any information that would have an impact on your blood mission such as loss of refrigeration or storage capability, or shortage of typing sera.

- Line 14: Message hour-minute-zone when required.

- Line 15: Authentication IAW joint task force procedures.

**NOTE:**

LINES 4 through 8, 14, and 15 are not normally used and can be deleted at the discretion of the Theater Army Blood Program Manager. An example of a completed BLDREP is at Figure E-2.

g. Transmission of the BLDREP.

(1) *Method.* Message is the primary method with voice as the alternate (see

Figure E-3). Communications capabilities of originator and addressee, as well as urgency of the message subject/text material, will determine the method. Messages should be sent as IMMEDIATE because of very short blood expiration dates. Correct plain language addresses

from a current directory must be used. The BLDREP may be transported by courier if that is more practical and expedient. When the DBSS is implemented, it will be possible to transmit unclassified reports between organizations.

FM: MEDICAL TREATMENT FACILITY (ELEMENT)  
 TO: BLOOD SUPPLIER  
 INFO: AS DETERMINED BY COMMAND OPLAN  
 CLAS  
 OPER/DESERT SHIELD//  
 MSGID/BLDREP/32CSH/110100ZJAN92//  
 ASOFDTG/102359ZJAN92// (Line 1)  
 REPUNIT/32CSH/H// (Lines 2,3)  
 BLDINVT/-/100JS/80JT/20JU/50MV// (Line 9)  
 BLDREQ/-/50JSX/40JTX/10JUX/25MVY// (Line 10)  
 BLDEXP/-/25JS/5JT// (Line 11)  
 BLDEST/-/700JQ// (Line 12)  
 CLOSTEXT/RECEIVED-50JS 50JT/TRANS-  
 FUSED-60JS 40JT/EXPIRED-10JS/SHIPPED-0/  
 REFRIGERATOR NEEDS REPAIR// (Line 13)

REPORT EXPLANATION:  
 LINE 1: BLOOD REPORT AS OF 2359Z 10 JAN 92  
 LINES 2,3: REPORTING UNIT IS 32D CSH, H CODE = MEDICAL TREATMENT FACILITY  
 LINE 9: ENDING INVENTORY = 100 UNITS OF RANDOM TYPE O, 80 UNITS OF RANDOM TYPE A, AND 20 UNITS OF RANDOM TYPE B RBCs. CSH HAS 50 UNITS OF FFP  
 LINE 10: THE CSH NEEDS 50 UNITS OF RANDOM TYPE O, 40 UNITS OF RANDOM TYPE A, AND 10 UNITS OF RANDOM TYPE B RBCs WITHIN THE NEXT 24 HOURS AND 25 UNITS OF FFP WITHIN 48 HRS  
 LINE 11: CSH HAS 25 UNITS OF RANDOM TYPE O AND 5 UNITS OF RANDOM TYPE A RBCs EXPIRING IN THE NEXT 7 DAYS  
 LINE 12: CSH NEEDS 700 UNITS OF RANDOM GROUP AND TYPE O, A, AND B RBCs WITHIN THE NEXT 7 DAYS  
 LINE 13: CSH RECEIVED 50 UNITS OF RANDOM TYPE O AND 50 UNITS OF RANDOM TYPE A RBCs, TRANSFUSED 60 UNITS OF RANDOM TYPE O AND 40 UNITS OF RANDOM TYPE A RBCs, EXPIRED A TOTAL OF 10 UNITS OF RANDOM TYPE O RBCs, SHIPPED NO BLOOD PRODUCTS DURING THE PAST 24 HOURS, AND HAS A BLOOD BANK REFRIGERATOR THAT NEEDS REPAIR.

Note: Random group means 50 percent O cells, 40 percent A cells, and 10 percent B RBCs. Random type means 85 percent Rh positive and 15 percent Rh negative RBCs.

Figure E-2. Example of a blood report.

BLUE THIS IS RED	BLOOD REPORT OVER	LINE 10	50JSX, 40JTX, 10JUX, 25MVY
GO AHEAD RED		LINE 11	25 JS, 5 JT
THIS IS RED	IMMEDIATE UNCLASSIFIED	LINE 12	700JQ
LINE 1	152359Z	LINE 13	RECEIVED 50JS, 50JT/TRANSFUSED 60JS, 40JT/ EXPIRED 10JS, SHIPPED 0/REFRIGERATOR NEEDS REPAIR
LINE 2	32 CSH		
LINE 3	H		
LINE 9	100 JS, 80 JT, 20JU, 50MV	OVER	

Figure E-3. Example of a voice blood report.

(2) *Frequency.* Required as follows unless otherwise directed:

(a) Medical treatment facility (including Echelon II) to blood supplier: daily as of 2359Z; report required not later than 0400Z.

(b) Forward blood supplier to blood bank platoon: daily as of 2359Z; report required not later than 0400Z.

(c) Blood bank platoon to an AJBPO: daily as of 2359Z; report required not later than 0400Z.

(d) Blood transshipment center to an AJBPO: daily as of 2359Z; report required not later than 0400Z.

(e) Area Joint Blood Program Office to JBPO: daily as of 0400Z; report required not later than 0800Z.

(f) Joint Blood Program Office to ASBPO: daily as of 0800Z; report required not later than 1200Z.

*h.* Blood report policies are listed below:

(1) Information copies should be kept to a minimum and be specifically required by the respective OPLAN. Increased quantities of information copies overload the message channels.

(2) If an AJBPO is not established, the blood bank platoon and BTC will report directly to the JBPO.

(3) The addressee will normally be the next higher organization level with whom the reporting unit (originator) is authorized direct communication: MTF to blood supplier; blood supplier to AJBPO; blood supplier to JBPO (if AJBPO not established); BTC to AJBPO; BTC to

JBPO (if AJBPO not established); AJBPO to JBPO; JBPO to ASBPO.

(4) A blood supply unit of one Service may receive BLDREPs from an MTF of another service when the blood supply unit is in an area support role.

(5) All BLDREPs should be classified at the lowest level required to meet operational constraints.

(6) Each MTF including those at Echelon II will submit a BLDREP to the supporting blood supplier, as required.

(7) The forward blood supplier will submit a BLDREP to a blood bank platoon, as required.

(8) The blood bank platoon will submit a BLDREP to an AJBPO on the status of blood components in the blood bank platoon, as required. The report will reflect the blood bank platoon's inventory and anticipated blood requirements.

(9) The BTC blood manager will submit a BLDREP to an AJBPO on the status of blood components in the BTC.

(10) The AJBPO will submit a BLDREP to the JBPO on the status of blood components in the BTCs and blood supply bank platoons, as required.

(11) The JBPO will submit a consolidated BLDREP to the ASBPO on the status of blood components in each Unified Command Joint Blood Program area.

## E-2. The Blood Shipment Report

a. The BLDSHIPREP provides a standardized message format that is used worldwide

in the Armed Services Blood Program to report blood shipments.

b. The respective JBPO, in lieu of standard nomenclature, may assign brevity codes for individual component blood program elements. The JAMPS and the MTFE may be available to automate the BLDSHIPREP formatting. (The DBSS will eventually provide this capability.) To help reduce the length of the messages, a master menu of BLDSHIPREP codes has been standardized. These codes are the same as used for the BLDREP (see Figure E-1).

c. A completed BLDSHIPREP should reflect the following:

- Heading of Message: From and to addresses, information copy addressees, message classification, operation name, report identification, date/time of message, references to other messages.

- Line 1: ASOFDTG Day-time-zone of the blood shipment.

- Line 2: Name, designator code, and activity brevity code of reporting unit.

- Line 3: Location of reporting unit.

- Line 4: Blood product codes/number of units shipped/total number of units shipped.

- Line 5: Blood shipment or airbill control numbers/aircraft flight number/estimated time of arrival at destination/number of boxes shipped.

- Line 6: Contact name from shipping location (rank, phone number, location).

- Line 7: Additional closing comments (CLOSTEXT) such as when the blood will require icing.

- Line 8: Message downgrading instructions.

d. An example of a completed BLDSHIPREP is at Figure E-4.

```

FM: CDR USAMEDDAC FT CAMPBELL KY/HSLBB//
TO: ASWBPL MCGUIRE AFB NJ//
INFO: CDRUSAHSC FT SAM HOUSTON TX/HSCL-C//
CLAS
OPER/DULL BRASS//
MSGID/BLDSHIPREP/FT CAMPBELL BDC/100122ZJAN92//
REF/A/CDRUSAHSC/090300ZJAN92/-/NOTAL//
ASOFDTG/100001ZJAN92//
REPUNIT/CMBC FT CAMPBELL KY//
ISHIPD
/BP/OPOS/ONEG/APOS/ANEG/BPOS/BNEG/ABPOS/ABNEG//TOTCTBP//
/J / 160 / 140 / 32 / 40 / 20 / 8 / 0 / 0 // 400 //
BLDSHIP/AB12134/DELTA732/101500ZJAN92/14//
POC/ZIELMANSKI/LTC/512-756-7782/-/CAMPBELL KY//
CLOSTEXT/BLOOD ICED 130001ZJAN92/CMBC SHIPMENT NO1//
DECL/OADR
    
```

Figure E-4. Example of a blood shipment report.

## APPENDIX F

## COMMUNICATIONS, AUTOMATION, AND POSITION/NAVIGATION SYSTEMS

### F-1. Operational Facility Rules and Equipment

*a.* The ability to communicate is essential to C2 and the accomplishment of the assigned mission. To ensure effective communications, a system has evolved which authorizes specific types and numbers of radios for a unit or element. This appendix contains those OPFAC rules applicable to the four CHLS organizations discussed in Chapter 2.

*b.* The OPFAC rule is the tool used to determine where communications devices are needed and the type and numbers needed. The OPFAC rule is the smallest element of a TOE to which a piece of communications equipment is

assigned, such as the commander, staff officer, or section or platoon.

*c.* The OPFAC rules are the basis for documenting command, control, communications, and computer equipment in the basis of issue plans (BOIPs) and TOES. These determine the correct type and distribution of radios, MSE, POS/NAV devices, and tactical computers for each TOE. The OPFAC rule system is an ongoing validation. These rules are subject to change. The rules discussed here are current as of the date of this publication. Tables F-1 through F-8 depicts the OPFAC distribution of equipment for the MEDLOG battalions (forward and rear), the TMMMC, and the MEDLOG support detachment.

*Table F-1. TOE 08486L000, Headquarters and Headquarters Detachment,  
Medical Battalion, Logistics (Forward)*

PARA	USER/ POSITION	OPFAC RULE #	FM RADIO	AM RADIO	MSE	FAX	POS/NAV EQUIPMENT	ADP EQUIPMENT	ADP USE	COMM TERMINAL
01.01	BATTALION COMMANDER	D8204	89A		TA-1035, MSRT		PLGR			
01.02	BATTALION XO	D8211	90A		TA-1035		PLGR			
01.03	S2/S3 OFFICER	D8240	90A		TA-1035, MSRT		PLGR			
01.05	S4 OFFICER	D8250	90A		TA-1035					
02.00	S1 SECTION	D8801			TA-1035 (3)	FAX		TACCS	SIDPERS	
03.00	S3 SECTION	DE284	90A	193A	TA-1035 (3)	FAX		CSSCS MEDTCU CTASC II	C2 MEDREG LOGMGMT	UGC144

*Table F-1. TOE 08486L000, Headquarters and Headquarters Detachment, Medical Battalion, Logistics (Forward) (Continued)*

PARA	USER/ POSITION	OPFAC RULE #	FM RADIO	AM RADIO	MSE	FAX	POS/NAV EQUIPMENT	ADP EQUIPMENT	ADP USE	COMM TERMINAL
03.03	COMM CHIEF	DH206					PLGR			
04.00	S4 SECTION	D8890			TA-1035 (2)			TACCS	SPBS-R	
05.00	BN MAINT SECTION	D8750			90A					
05.01	MED MAINT SUPPLY/PLL	D8751			TA-1035					
05.11	PLL CLERK	DHA52			TA-1035					
06.01	DETACHMENT COMMANDER	DA200	88A		TA-1035		PLGR			

THE TACCS DEVICES WILL BE REPLACED BY NONDEVELOPMENT ITEMS IN THE FUTURE; THE AUTHORIZATION IS CTA 50-909, FIELD AND GARRISON FURNISHINGS AND EQUIPMENT, 1 AUGUST 1993.

*Table F-2. TOE 08487L000, Logistics Support Company, Medical Battalion, Logistics (Forward)*

PARA	USER/ POSITION	OPFAC RULE #	FM RADIO	AM RADIO	MSE	FAX	POS/NAV EQUIPMENT	ADP EQUIPMENT	ADP USE	COMM TERMINAL
01.00	COMPANY HQ	DB283			TA-1035 (4)					
01.01	COMPANY COMMANDER	DB204	89A		TA-1035		PLGR			
09.00	BLOOD BANK PLT	DF283			TA-1035 (2)					



Table F-3. TOE 08488L000, Distribution Company, Medical Battalion, Logistics (Forward)

PARA	USER/ POSITION	OPFAC RULE #	FM RADIO	AM RADIO	MSE	FAX	POS/NAV EQUIPMENT	ADP EQUIPMENT	ADP USE	COMM TERMINAL
01.01	COMPANY COMMANDER	DB204	89A		TA-1035		PLGR			
02.0A	FWD SPT PLT HQ (A)	DB271			TA-1035 (4)		PLGR	MEDTCU MEDTCU	MEDSUP MEDMNT	
02.0B	FWD SPT PLT HQ (B)	DB271			TA-1035 (4)		PLRG	MEDTCU MEDTCU	MEDSUP MEDMNT	

Table F-4. TOE 08696L000, Headquarters and Headquarters Detachment,  
Medical Battalion Logistics (Rear)

PARA	USER/ POSITION	OPFAC RULE #	FM RADIO	AM RADIO	MSE	FAX	POS/NAV EQUIPMENT	ADP EQUIPMENT	ADP USE	COMM TERMINAL
01.01	BATTALION COMMANDER	D8205	90A		TA-954					
01.02	BATTALION XO	D8212	90A		TA-954					
01.03	S2/S3 OFFICER	D8241	90A		TA-954					
01.05	S4 OFFICER	D8251	90A		TA-954					
02.00	S1 SECTION	D8800			TA-954(2) TA-1042	FAX		TACCS	SIDPERS	
03.00	S3 SECTION	DE285	90A	193A	TA-1042 TA-954(2)	FAX		CSSCS MEDTCU CTASC II	C2 MEDREG LOGMGMT	UGC144
04.00	S4 SECTION	D8891			TA-954(2)			TACCS	SPBS-R	
05.00	BATTALION MAINT SEC	D8750	90A		TA-954					
05.01	MAINT TECH	D8752			TA-954					
05.14	PLL CLERK	DHA50			TA-954					
06.01	DETACHMENT	DA201	88A		TA-954		PLGR			

THE TACCS DEVICES WILL BE REPLACED BY NONDEVELOPMENT ITEMS IN THE FUTURE; THE AUTHORIZATION IS CTA 50-909, FIELD AND GARRISON FURNISHINGS AND EQUIPMENT, 1 AUGUST 1993.

Table F-5. TOE 08697L000, Logistics Support Company, Medical Battalion, Logistics (Rear)

PARA	USER/ POSITION	OPFAC RULE #	FM RADIO	AM RADIO	MSE	FAX	POS/NAV EQUIPMENT	ADP EQUIPMENT	ADP USE	COMM TERMINAL
01.00	COMPANY HQ	DB283			TA-954 (4)					
01.01	COMPANY COMMANDER	DB203	90A		TA-954					
11.00	BLOOD BANK PLT (2)	DF283			TA-954 (4)					

Table F-6. TOE 08698L000, Distribution Company, Medical Battalion, Logistics (Rear)

PARA	USER/ POSITION	OPFAC RULE #	FM RADIO	AM RADIO	MSE	FAX	POS/NAV EQUIPMENT	ADP EQUIPMENT	ADP USE	COMM TERMINAL
01.01	COMPANY COMMANDER	DB203	90A		TA-954					
02.00	AREA SUPPORT PLT(2)	DF840			TA-954 (2)			MEDTCU (2)	MEDSUP	

Table F-7. TOE 08897L000 Theater Medical Materiel Management Center

PARA	USER/ POSITION	OPFAC RULE #	FM RADIO	AM RADIO	MSE	FAX	POS/NAV EQUIPMENT	ADP EQUIPMENT	ADP USE	COMM TERMINAL
01.03	MEDICAL OPERATIONS OFFICER	DL881		213	TA-954(9) TA-1042	FAX		MEDTCU CTASC II	MEDREG LOGMGMT	UGC-144

Table F-8. TOE 08909L000, Medical Logistics Support Detachment

PARA	USER/ POSITION	OPFAC RULE #	FM RADIO	AM RADIO	MSE	FAX	POS/NAV EQUIPMENT	ADP EQUIPMENT	ADP USE	COMM TERMINAL
01.01	DETACHMENT COMMANDER	DE205	87A		TA-1035		PLGR			

**F-2. Communications Equipment**

The OPFAC rules expressly impact on four types of communications equipment:

a. *Radios.* Frequency modulated and AM radios comprise the family of radios discussed in this appendix as CNRs. When dealing with OPFAC rules, the SINCGARS radios constitute the FM slice and the IHFR constitutes the AM component.

(1) *Single channel airborne radio system.* The SINCGARS radios, AN/VRC-87A, AN/VRC-88A, AN/VRC-89A, and AN/VRC-90A,

operate in the 30- to 88-megahertz (MHz) frequency range in 25-kilohertz (kHz) steps for a total of 2,320 channels. They can operate in either a single-channel or frequency-hopping mode.

(a) *AN/VRC-87A.* The AN/VRC-87A is a short-range, vehicular-mounted radio and has an effective range of approximately 8-kilometers (km) (Figure F-1). It is capable of transmitting and receiving on only one channel at a time. This radio is used by the detachment commander, MEDLOG support detachment (Table F-8). (Note: This radio is identical to the AN/VRC-88A radio with the exception of being reconfigured into a manpack radio.)

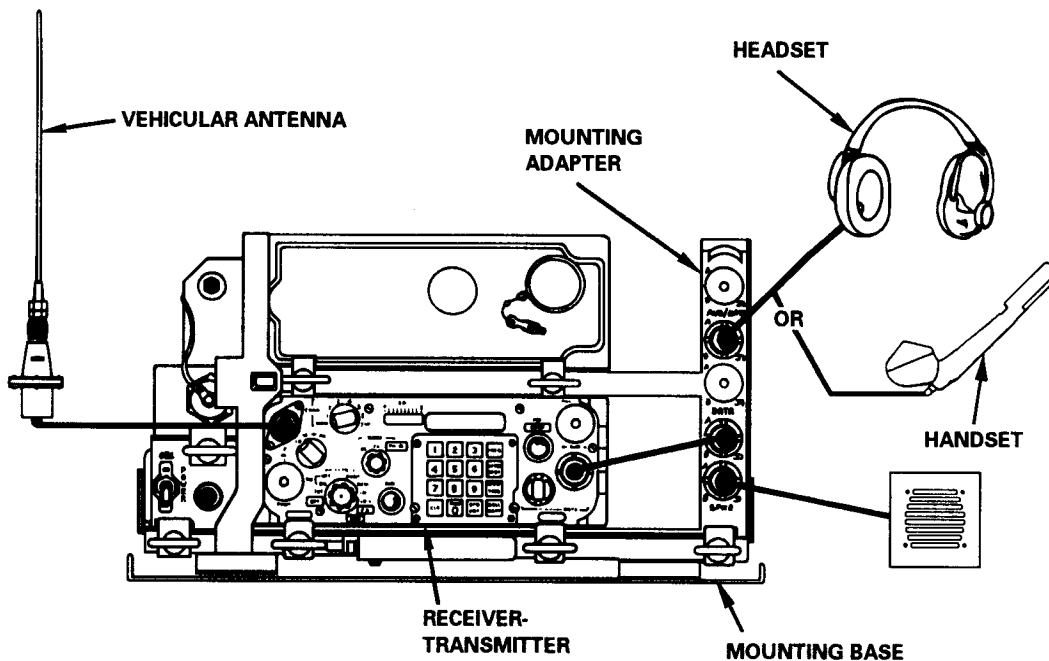


Figure F-1. Vehicular short-range radio, AN/VRC-87A.

(b) AN/VRC-88A. The AN/VRC-88A is a short-range, vehicular-mounted radio which has a manpack, antenna, and a battery case as additional components. The radio can be removed from the vehicle, and by installing the antenna and battery case, it can be

reconfigured as the AN/PRC-119 manpack radio (Figure F-2). It consists of one receiver/transmitter, a radio mount, a mounting adapter, a vehicular antenna, and associated handset and cabling. The dismantlable (AN/PRC-119) short-range AN/VRC-88 adds the components needed

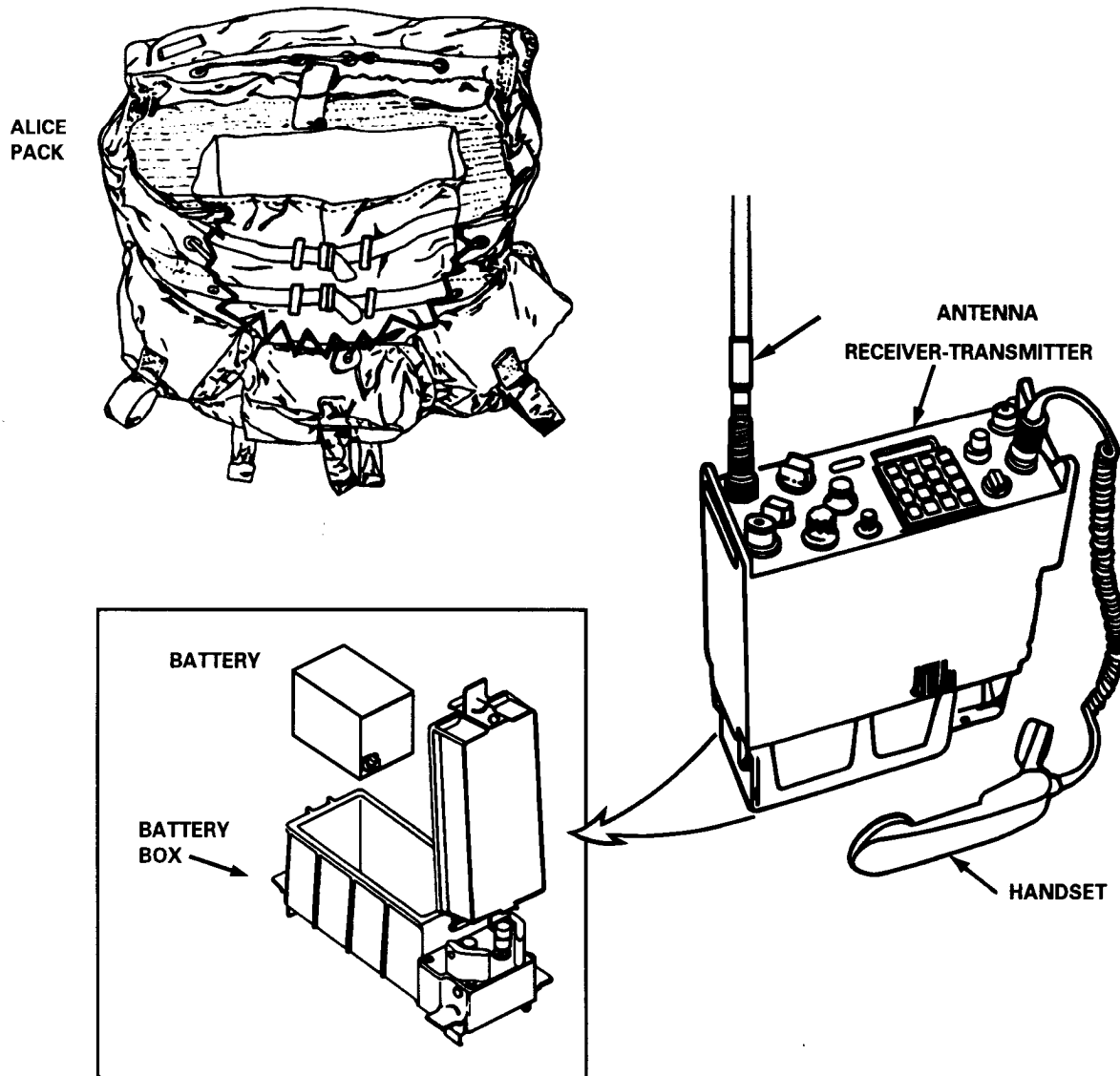


Figure F-2. Manpack, antenna, and battery case (AN/PRC-119).

to operate as a manpack radio. (It is identical to the AN/VRC-87A [Figure F-1].) The radio has a 8-km range and may be operated from a vehicle or in a dismounted configuration. The radio is normally used by the detachment commander in the headquarters and headquarters detachment, MEDLOG battalions (forward and rear) (Tables F-1 and F-4).

(c) AN/VRC-89A. The AN/VRC-89A radio is a vehicular-mounted, dual configuration radio consisting of one short-range

(approximately 8 km) and one long-range (approximately 35 km), solid state, securable transceiver mounted in a single vehicular mount (Figure F-3). It is basically two vehicular-mounted, short-range radio sets with an added power amplifier that provides one of the radio sets with a long-range communications capability. This radio is used by the commander, MEDLOG battalion (forward) (Table F-1), company commander, logistics support company (forward) (Table F-2), and company commander, distribution company, MEDLOG battalion (forward) (Table F-3).

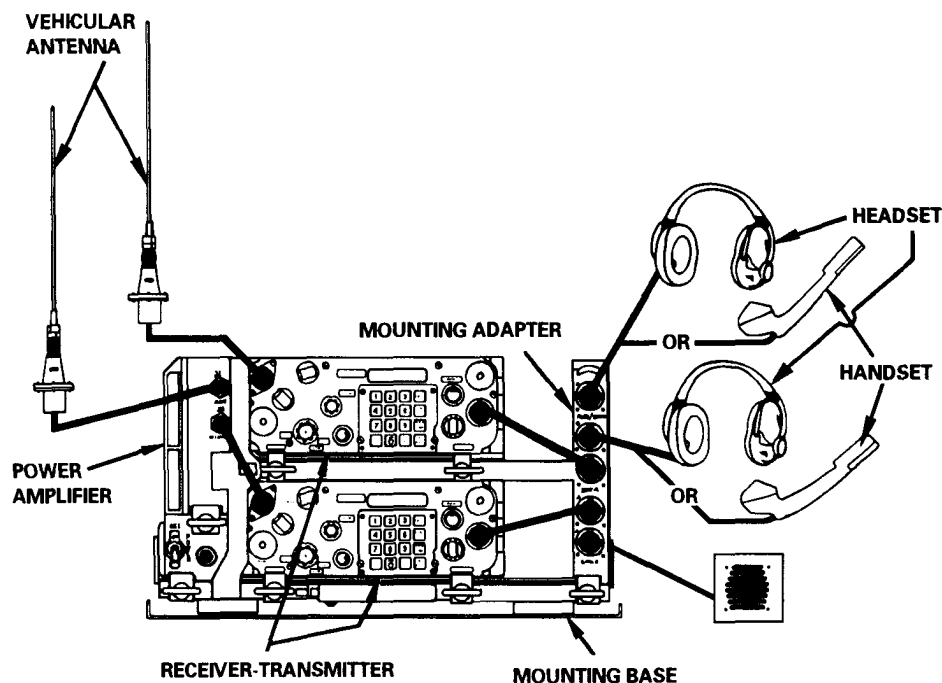


Figure F-3. Vehicular long-range/short-range radio, AN/VRC-89A.

(d) *AN/VRC-90A*. The AN/VRC-90A radio is an AN/VRC-87A with a power amplifier added for long-range capability. It is used where the communications range must normally operate over long distances (up to 35 km) (Figure

F-4). This radio is used by the battalion commander, support companies, and other staff and sections of the MEDLOG battalion (rear) (Tables F-4—F-6). It is also used by some staff and sections of the MEDLOG battalion (forward) (Table F-1).

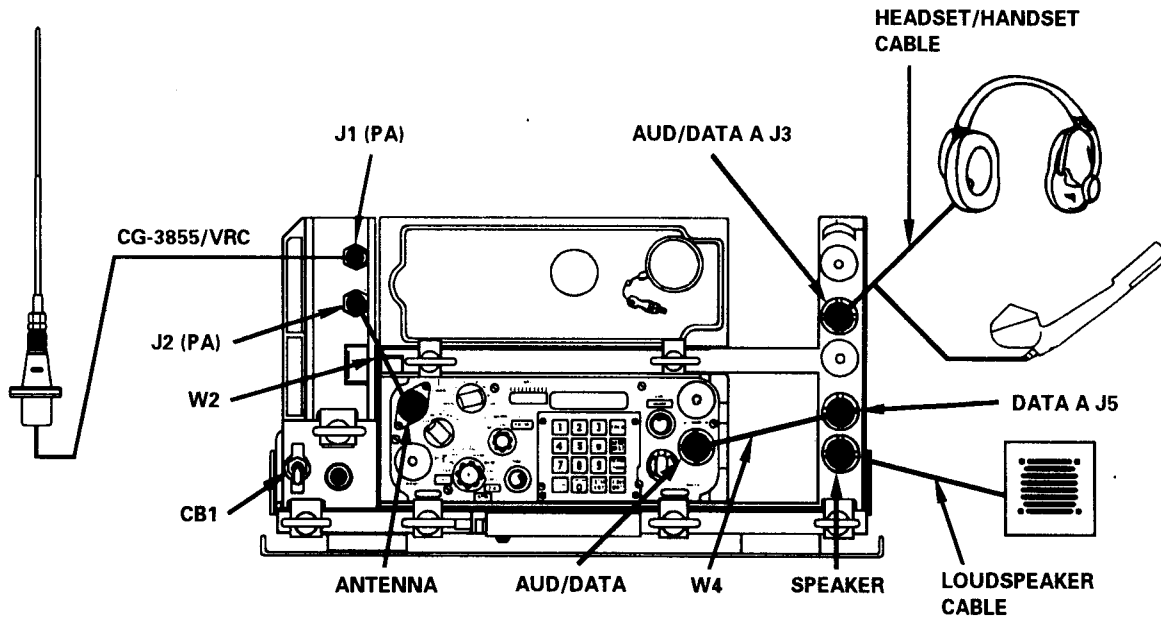


Figure F-4. Vehicular long-range radio, AN/VRC-90A.

(2) *Improved high-frequency, amplitude modulation radio.*

(a) The AN/GRC-193A (Figure F-5) is the AM radio that is designed to provide reliable, long-range, high-frequency voice

and data communications for both mobile and fixed stations. This radio is used by the S3 section of the MEDLOG battalions (forward and rear) (Tables F-1 and F-4). This radio is used to facilitate Class VIII supply management. It links the unit with higher headquarters and the CHS operations net.

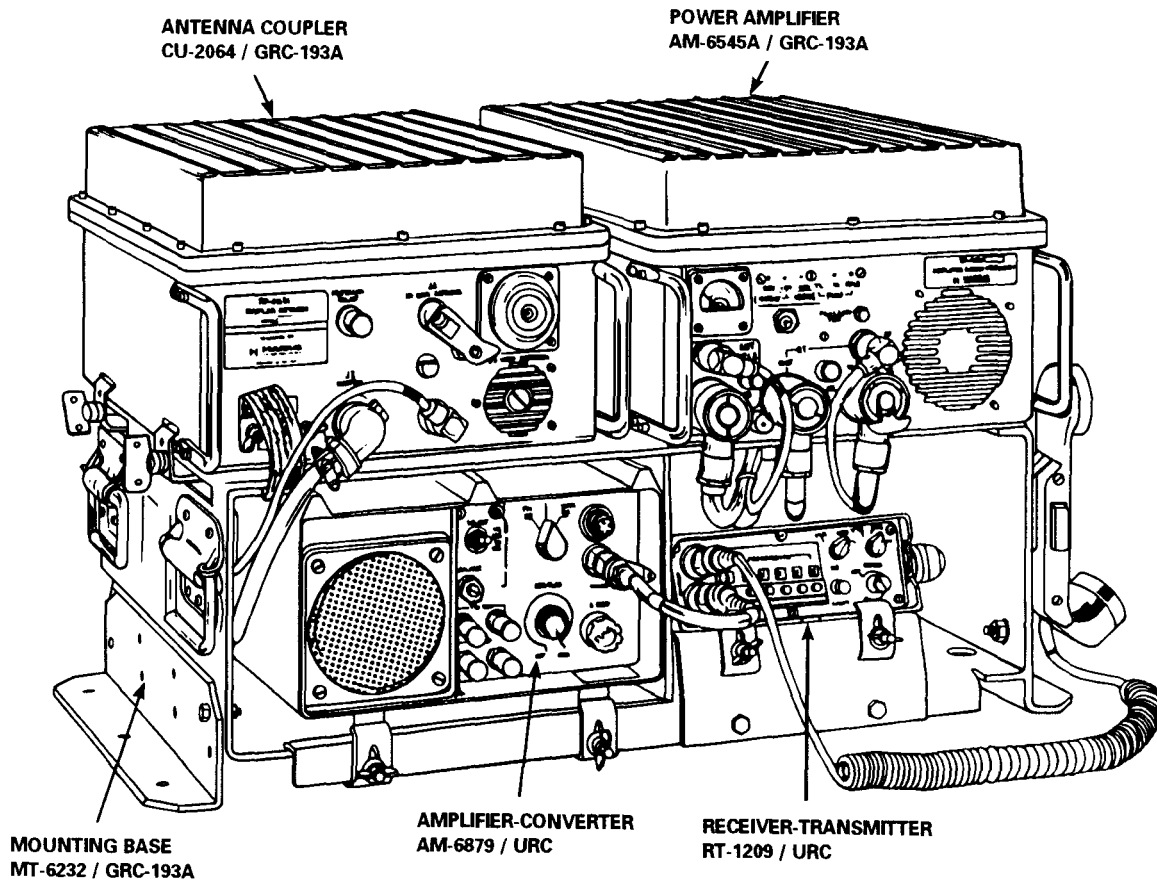


Figure F-5. Improved high-frequency radio, AN/GRC-193A.

(b) The AN/GRC-213 (Figure F-6) AM radio is designed for far-forward, low-signature, high-frequency voice communication. It has an effective range of approximately 50 km with a vehicle antenna. This range can be extended by

a factor of three with an antenna capable of an ionospheric bounce. It is used by the S3 section of the TMMMC (Table F-7). It links the unit with subordinate organizations and the CHS operations net to facilitate Class VIII supply management.

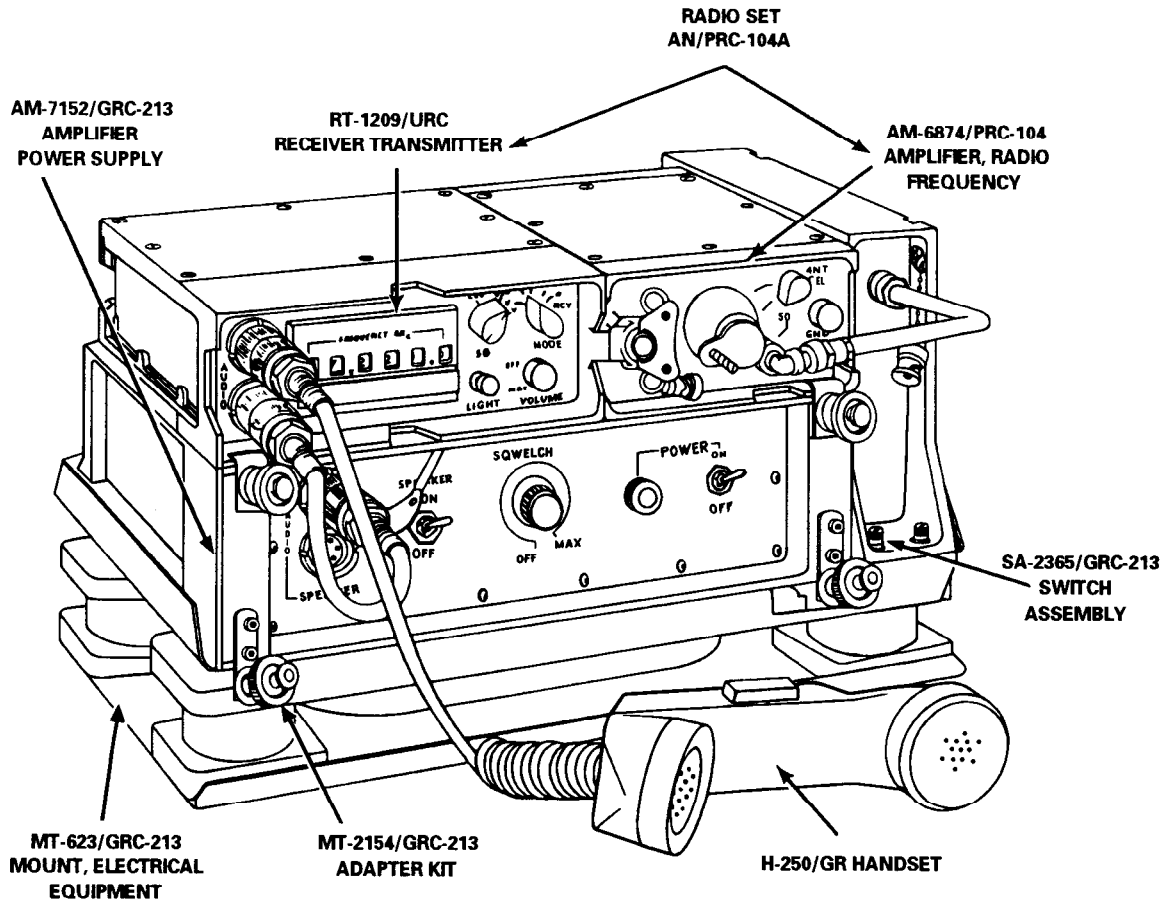


Figure F-6. Improved high-frequency radio, AN/GRC-213.

*b. Mobile Subscriber Equipment.*

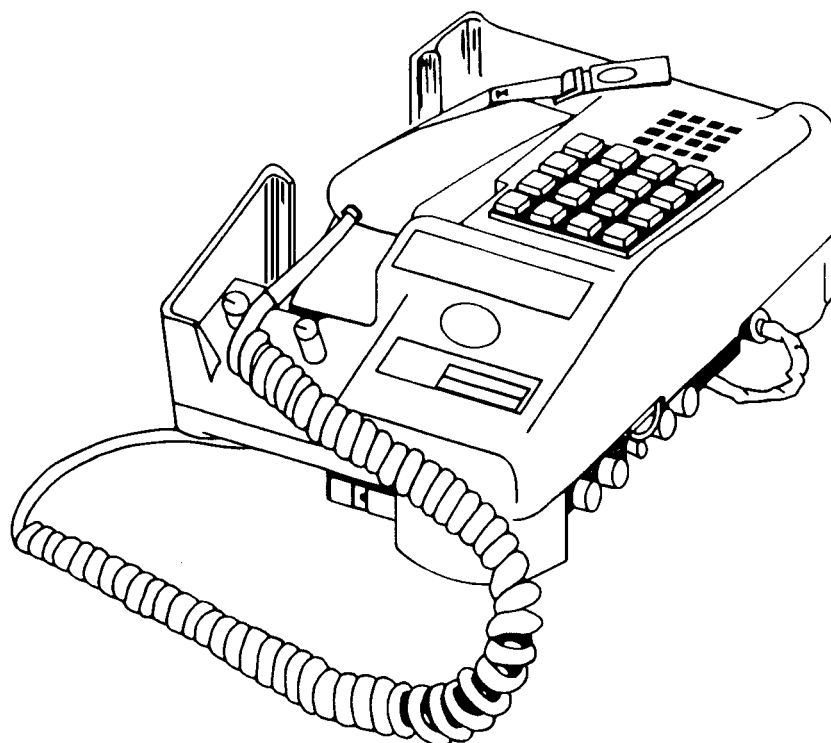
(1) *Digital nonsecure voice telephone:* TA-1035/U. The DNVT TA-1035/U (Figure F-7) is a prime subscriber terminal that provides full-duplex digital voice communications and voltage reference signal for data subscribers in the MSE system. It is also equipped with a data port that allows users of the lightweight digital facsimile (LDF) AN/UXC-7 to access the MSE network. The DNVT is found in the MEDLOG battalion (forward) (Tables F-1—F-3) and the MEDLOG support detachment (Table F-8).

(2) *Digital nonsecure voice terminal/digital data port:* TA-1042/U. The TA-1042U

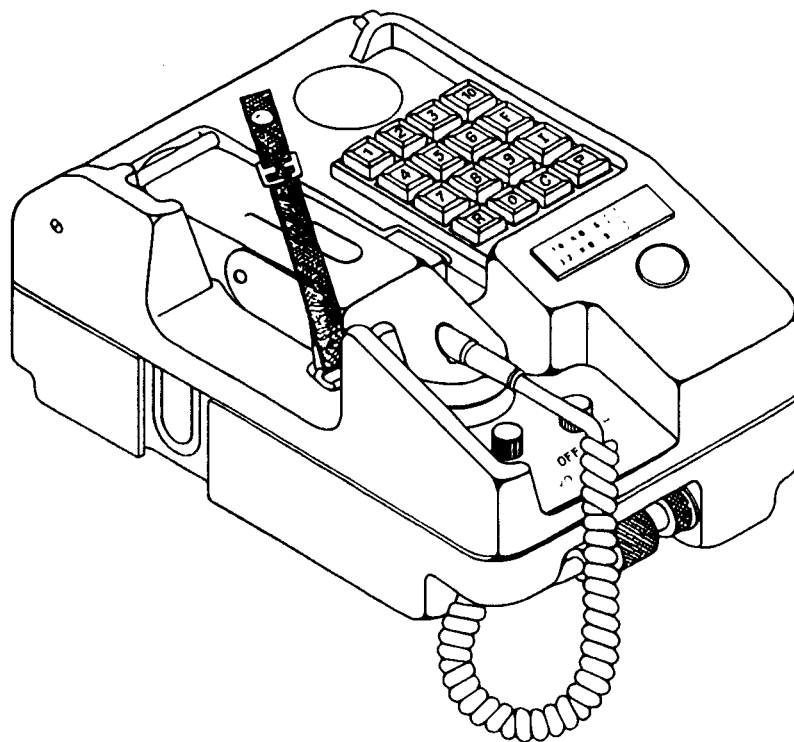
is an adapter for the DNVT TA-1035/U which provides digital processing capability. It is authorized for the S1 and S2/S3 sections of the MEDLOG battalion (rear) (Table F-4) and the TMMMC (Table F-7).

(3) *Digital nonsecure voice terminal:* TA-954/TT. The DVNT TA-954/TT is a 4-wire terminal which transmits and receives conditioned diphasemodulated digitized voice and loop signaling information (Figure F-8). It provides a digital communications interface with joint tactical communications and MSE circuit switches. It is found in the MEDLOG battalion (rear) (Tables F-4—F-6) and the TMMMC (Table F-7).





*Figure F-7. Digital nonsecure voice telephone, TA-1035/U.*



*Figure F-8. Digital nonsecure voice terminal, TA-954/TT.*

(4) *Tactical lightweight digital facsimile:* AN/UXC-7. The tactical LDF AN/UXC-7 (Figure F-9) is a LDF set, rugged, waterproof, low-power system capable of operating from standard alternating current (AC) and vehicle direct current (DC) power. It enables electronic transmission/reception of typed or handwritten record traffic, view graphs, map overlays, transparencies, and hand-drawn copies up to 8 ½ by 11 inches in black and white format (two shades of gray). The AN/UXC-7 will operate over existing and proposed voice radios and wire

circuits; full digital or analog data/voice capability. Its brief transmission (burst) reduces the chance of detection by the enemy. The critical advantages are made possible by the LDF set's ability to store data in memory and then send in a short, high-speed transmission requiring 7 to 15 seconds to transmit a full page. The AN/UXC-7 is found in the MEDLOG battalions (forward and rear) (Tables F-1 and F-4) and the TMMMC (Table F-7). It is used to send and receive hard-copy data for supporting CHS at echelons above brigade.

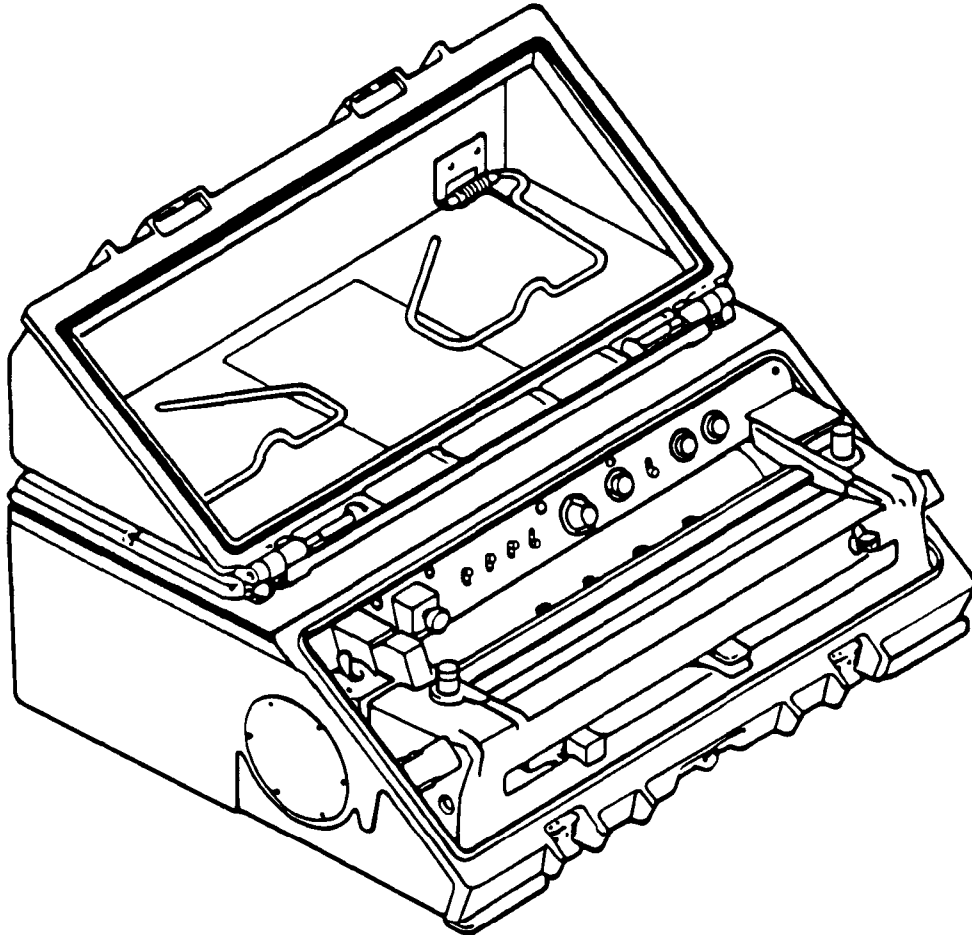


Figure F-9. Tactical lightweight digital facsimile, AN/UXC-7.

*c. Tactical Computers.*

(1) *Combat service support control system.* This is the computer system that runs a C2 software of the same name, CSS control system, throughout the CSS arena. It operates on common hardware and software equipment and is distributed primarily to C2 units. This system is found in the MEDLOG battalions (forward and rear) (Tables F-1 and F-4).

(2) *Corps/theater automatic data processing service center, phase II.* This automatic data processing (ADP) center is a vehicular-mounted mainframe computer system which is used to operate the multiple workstations of the MEDLOG battalions. It is found in the MEDLOG battalions (forward and rear) (Tables F-1 and F-4) and the TMMMC (Table F-7).

(3) *Medical transportable computer unit.* The medical transportable computer unit (MEDTCU) is the specific computer hardware system configured to perform the TAMMIS software applications of MEDPAR, MEDREG, defense blood standard system, MEDSUP, and MEDMNT. For additional information on TAMMIS, see Chapter 8. It is used in the MEDLOG battalions (forward and rear) (Tables F-1, F-3—F-4, and F-6) and the TMMMC (Table F-7). The MEDTCU is comprised of a transportable computer unit, color monitor device, printer unit, and an archives device.

(a) *Transportable computer unit.* The transportable computer unit connects with the archives device and printer unit and provides multitasking software resources for computational and graphic capability, word processing, and data base management. It operates from standard 115 or 230 volt AC. The unit comes with a full-sized, hinged/detachable keyboard that can be detached and relocated up to 24 inches from the computer unit.

(b) *Color monitor device.*

This monitor device has four to eight color planes and is driven by a video card installed in the host computer.

(c) *Printer.* This unit is a rugged printer designed to satisfy 80-column printer applications in an adverse environment where size, weight, and power consumption are prime considerations. The printer unit is a portable device. It employs solid state, dot matrix printing technology.

(d) *Archives device.* The archives device is a rugged ¼-inch (disk drive) streaming magnetic tape cartridge system intended to provide backup or archiving. The capacity is unlimited with each cartridge accommodating 67 megabytes. The archives device tape system is supported on the transportable computer unit.

(4) *Tactical Army CSS Computer System.* This is the tactical hardware which operates the standard installation/division personnel system and the SPBS-R. This system is used in the MEDLOG battalions (forward and rear) Tables F-1 and F-4).

(5) *Remote keyboard visual display unit.* This unit is a remote (dumb terminal) monitor and keyboard designed for use with the TACCS equipment. It provides the capability for data to be retrieved or entered by more than one operator simultaneously.

*d. Position Location/Navigation Device.* The precision lightweight global positioning system (GPS) receiver (PLGR) (Figure F-10) is a hand-held, battery-powered POS/NAV set that receives its signal from GPS satellites. The device provides a very accurate position location capability for determining and/or reporting self-location; however, it is not a communications device. The MEDLOG battalions (forward and

rear) (Tables F-1—F-4) and the MEDLOG support company (Table F-8) are authorized this item. The device is designed for individual or vehicle use.

*e. Communications Terminal.* The AN/UGC-144 is a single subscriber terminal (Figure F-11). It is the modernization version of the teletypewriter that is usable with the MSE equipment. It employs a microcomputer and user friendly software along with a speech and data secure MSE telephone to transmit and receive record traffic. It is used in the MEDLOG battalions (forward and rear) (Tables F-1 and F-4) and the TMMMC (Table F-7).

*f. Mobile Subscriber Radio Telephone.* This telephone is issued with MSE for use in vehicles (Figure F-12). It is allocated to the battalion commander and the S2/S3 officer, MEDLOG battalion (forward) (Table F-1).

*g. Ancillary Radio Equipment.*

(1) *Radio set control group: AN/GRA-39.* The AN/GRA-39 is used to remote single channel radios. It is compatible with integrated-COMSEC (ICOM) and non-ICOM radios. The AN/GRA-39 (Figure F-13) controls only remote keying of radios from a terminal set; the operator must set the other functions at the radio's location.

(2) *Secure voice and FM communications device.* The TSEC/KY-68 digital subscriber voice terminal is the secure voice and FM communications device found in the MEDLOG battalion (rear). The KY-68 is used for encrypting/decrypting voice traffic and provides secure digitized data traffic. It operates as a full-duplex or half-duplex voice/data subscriber terminal. The KY-68 provides secure and nonsecure access to the switched networks and secure access to nonswitched networks (see Figure F-12).

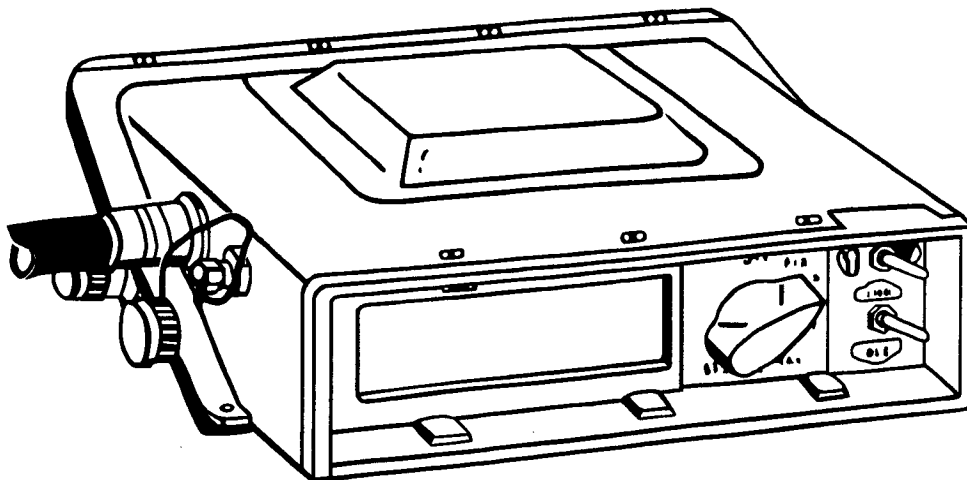
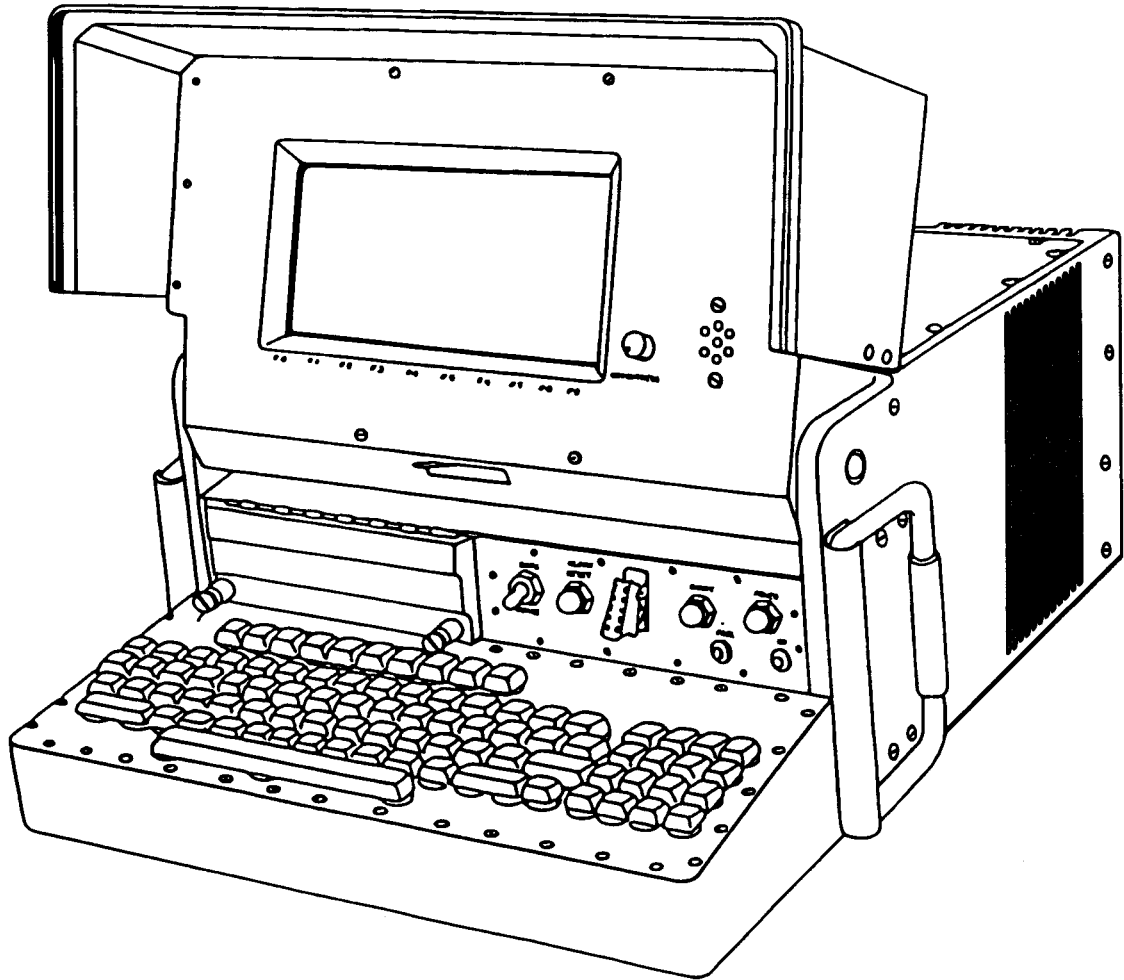


Figure F-10. Precision lightweight global positioning system receiver.



NOTE: PRINTER IS SEPARATE.

*Figure F-11. Single subscriber terminal, AN/UGC-144.*

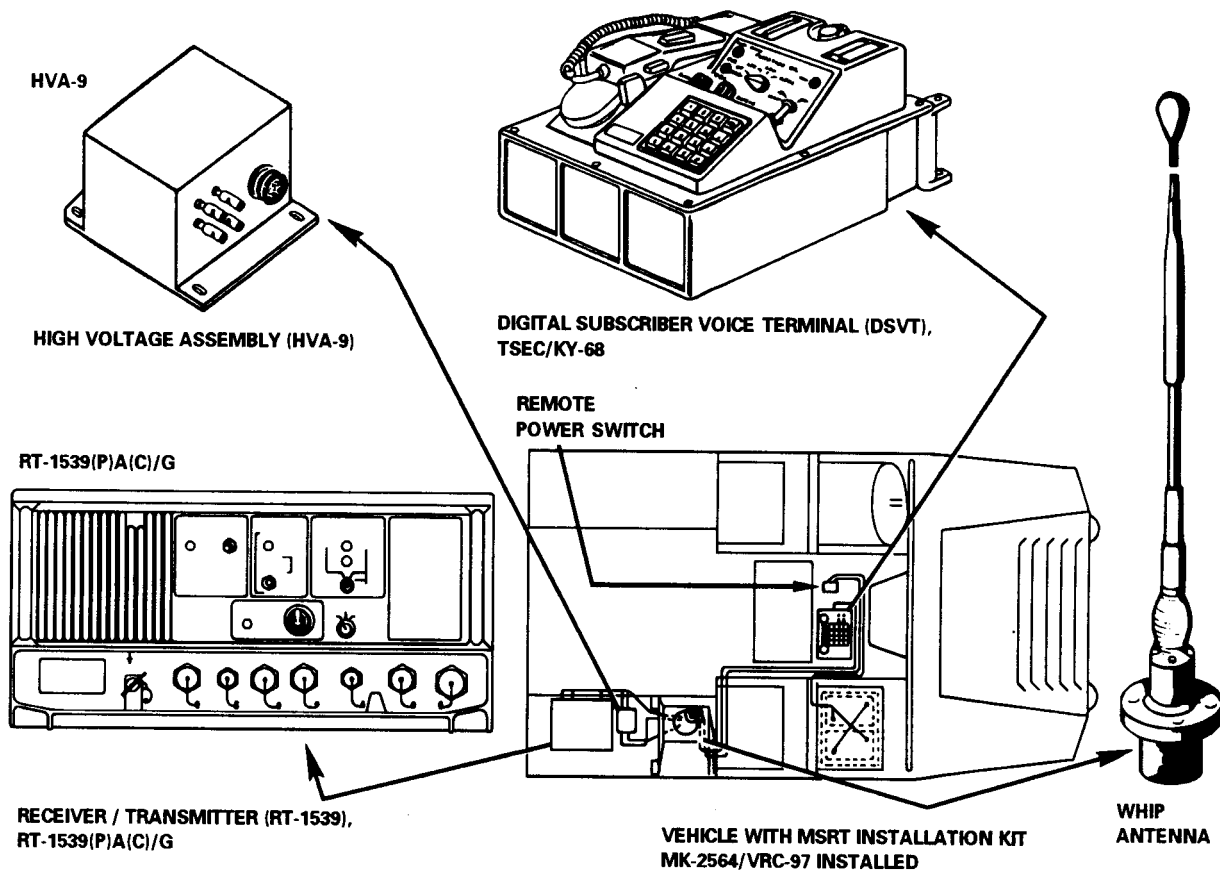


Figure F-12. Typical mobile subscriber radio/telephone installation.

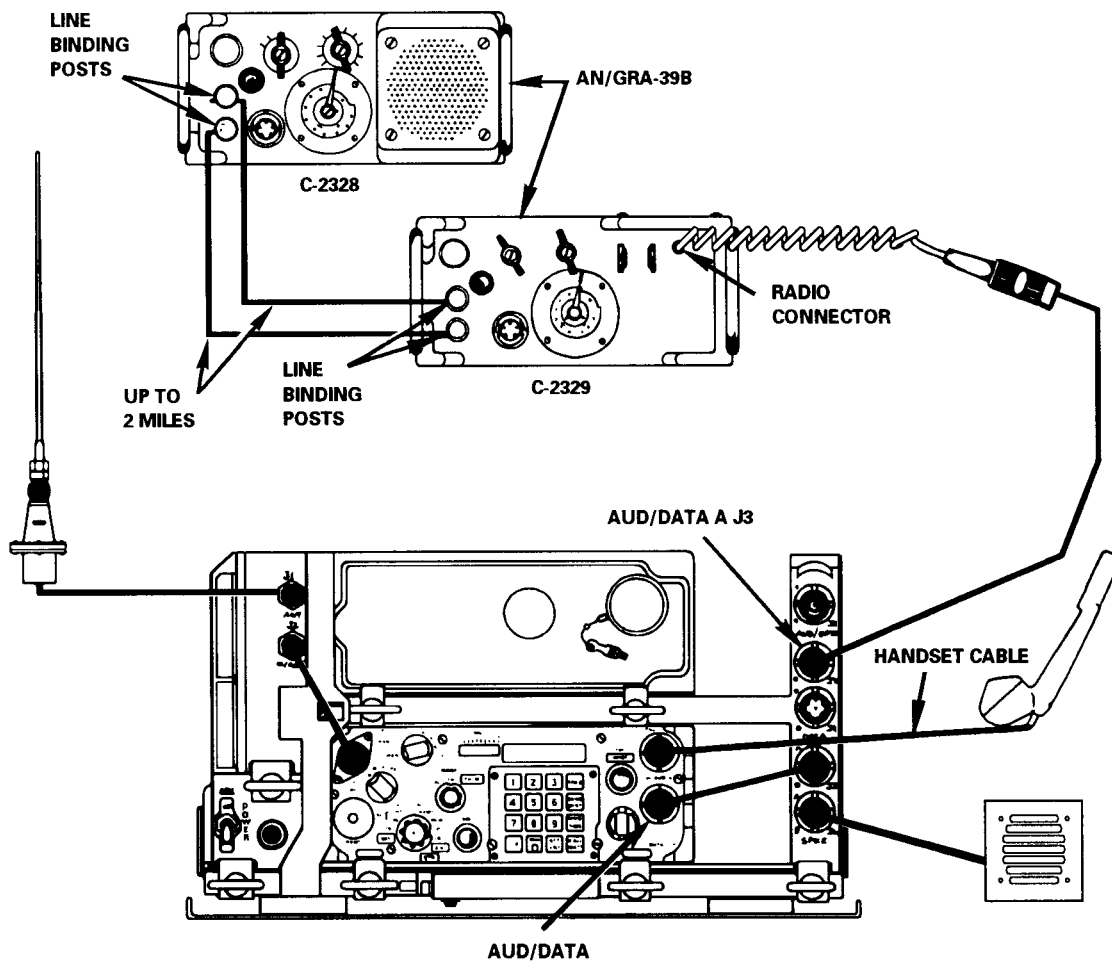


Figure F-13. Radio set control group, AN/GRA-39.

## GLOSSARY

**ABBREVIATIONS AND ACRONYMS**

<b>ABCA</b> American, British, Canadian, and Australian	<b>ASP</b> area support platoon
<b>AC</b> alternating current	<b>ASWBPL</b> Armed Services Whole Blood Processing Laboratory
<b>ACR</b> armored cavalry regiment	<b>ATCCS-CHS</b> Army Tactical Command and Control System with Common Hardware and Software
<b>ACUS</b> area common-user system	<b>ATM</b> advanced trauma management
<b>ADP</b> automatic data processing	<b>attn</b> attention
<b>AFMIC</b> Armed Forces Medical Intelligence Center	<b>aud</b> audio
<b>AH</b> Army helicopter	<b>BAS</b> battalion aid station
<b>AJBPO</b> Area Joint Blood Program Office(s)	<b>BDAR</b> battle damage assessment and repair
<b>ALICE</b> all-purpose lightweight individual carrying equipment	<b>BDC</b> blood donor center
<b>AM</b> amplitude modulation	<b>BITE</b> built-in test equipment
<b>AMEDD</b> Army Medical Department	<b>BLDREP</b> blood report
<b>AMEDDC&amp;S</b> Army Medical Department Center and School	<b>BLDSHIPREP</b> blood shipment report
<b>AO</b> area of operations	<b>bn</b> battalion
<b>AOR</b> area(s) of responsibility	<b>BOIP</b> basis of issue plans
<b>AR</b> Army regulation	<b>BPA</b> blanket purchasing agreement
<b>ASBP</b> Armed Services Blood Program	<b>BPD</b> blood products depot
<b>ASBPO</b> Armed Services Blood Program Office(r)	<b>BSA</b> brigade support area
<b>ASL</b> authorized stockage list	<b>BSU</b> blood supply unit
<b>ASMB</b> area support medical battalion	<b>BTC</b> blood transshipment center
<b>ASMC</b> area support medical company	<b>C</b> Celsius
	<b>C2</b> command and control



## FM 8-10-9

**C4I** command, control, communications, computers, and intelligence

**CA** California

**cbt** combat

**CD-ROM** compact disc—Read-Only Memory

**CE** communications-electronics

**CEEP** Capital Equipment Expense Program

**CHLS** combat health logistics system

**CHS** combat health support

**CINC** Commander in Chief

**clr** clearing

**CNR** combat net radio

**co** company

**comm** communication(s)

**COMMZ** communications zone

**COMSEC** communications security

**cont** control

**CONUS** continental United States

**COSCOM** corps support command

**CS** combat support

**CSA** corps support area

**CSC** combat stress control

**CSH** combat support hospital

**CSS** combat service support

**CSSCS** Combat Service Support Control System

**CTA** common table of allowances

**CTASC II** Corps/Theater Automated Support Center Phase II

**CVC** calibration, verification, and certification

**CZ** combat zone

**DA** Department of the Army

**DAMMS-R** Department of the Army Movement Management System-Redesign

**DAS3** Decentralized Automated Service Support System

**DBSS** Defense Blood Standard System

**DC** direct current

**DD** Department of Defense

**DE** directed-energy

**DEPMEDS** Deployable Medical Systems

**det** detachment

**DISCOM** division support command

**distr** distribution

**div** division

**DLA** Defense Logistics Agency

**DMOC** division medical operations center

**DMSO** division medical supply office

Glossary-2

<b>DNBI</b> disease and nonbattle injuries	<b>FSC</b> federal supply classification
<b>DNVT</b> digital nonsecure voice terminal	<b>FSMC</b> forward support medical company
<b>doc</b> document	<b>FSP</b> forward support platoon
<b>DOD</b> Department of Defense	<b>FST</b> forward surgical team
<b>DOS</b> days of supply	<b>fwd</b> forward
<b>DPSC</b> Defense Personnel Support Center	<b>G3</b> Assistant Chief of Staff, G3 (Operations and Plans)
<b>DS</b> direct support	<b>GH</b> general hospital
<b>DSA</b> division support area	<b>GPS</b> global positioning system
<b>DSN</b> Defense Switched Network	<b>GS</b> general support
<b>DSVT</b> digital subscriber voice terminal	<b>HHD</b> headquarters and headquarters detachment
<b>EAC</b> echelons above corps	<b>HIV</b> human immunodeficiency virus
<b>EEFI</b> essential elements of friendly information	<b>HN</b> host nation
<b>EEI</b> essential elements of information	<b>HQ</b> headquarters
<b>EMT</b> emergency medical treatment	<b>HSMO</b> health service materiel officer
<b>EPW</b> enemy prisoner(s) of war	<b>IAW</b> in accordance with
<b>equip</b> equipment	<b>ICOM</b> integrated-COMSEC
<b>FAX</b> facsimile	<b>IHFR</b> improved high-frequency radio
<b>FDA</b> Food and Drug Administration	<b>ISO</b> International Organization for Standardization
<b>FFP</b> fresh frozen plasma	<b>IV</b> intravenous
<b>FH</b> field hospital	<b>JAMPS</b> JINTACCS Automated Message Preparation System
<b>FM</b> frequency modulated; field manual (when used with a number)	<b>JBPO</b> Joint Blood Program Office
<b>FSB</b> forward support battalion	

## FM 8-10-9

**JINTACCS** Joint Interoperability of Tactical Command and Control Systems

**kHz** kilohertz

**km** kilometer

**LAT** latitude

**LDF** lightweight digital facsimile

**LEN** large extension node

**loc** locator

**log** logistics

**LOGMGMT** logistics management

**LONG** longitude

**LRA** local reproduction authorized

**LTOE** living table(s) of organization and equipment

**MAC** maintenance allocation charts

**maint** maintenance

**MASH** mobile army surgical hospital

**mat** materiel

**MCC** movement control center

**MCT** movement control team

**MD** Maryland

**med** medical

**MEDASM** medical assemblage management

**MEDCASE** medical care support equipment

**MEDCOM** medical command

**MEDLOG** medical logistics

**MEDMNT** medical maintenance

**MEDPAR** medical patient accounting and reporting

**MEDREG** medical regulating

**MEDSILS** Medical Services Information Logistics System

**MEDSTEP** Medical Standby Equipment Program

**MEDSUP** medical supply

**MEDTCU** medical transportable computer unit

**MES** medical equipment set

**METT-T** mission, enemy, terrain, troops and time available

**MF2K** Medical Force 2000

**MFP** material fielding plan

**mgt** management

**MHz** megahertz

**ml** milliliter

**MLST** medical logistics support team

**MMS** medical materiel set

**MODMED** modular medical

**MOPP** mission-oriented protective posture

**MOS** military occupational specialty

<b>MOV</b> materiel obligation validation	<b>OOTW</b> operations other than war
<b>MPL</b> mandatory parts list	<b>OPCON</b> operational control
<b>MRS</b> medical resupply sets	<b>OPFAC</b> operational facility
<b>MSB</b> main support battalion	<b>OPLAN</b> operation plan
<b>MSE</b> mobile subscriber equipment	<b>OPORD</b> operation order
<b>MSMC</b> main support medical company	<b>OPSEC</b> operations security
<b>MSRT</b> mobile subscriber radiotelephone terminal	<b>OTSG</b> Office of The Surgeon General
<b>MST</b> maintenance support team	<b>PA</b> physician assistant
<b>MTE</b> medical treatment element	<b>para</b> paragraph
<b>MTF</b> medical treatment facility	<b>PC</b> platelet concentrate
<b>MTFE</b> Message Text Format Editor	<b>PCB</b> printed circuit board
<b>MUST</b> medical unit, self-contained, transportable	<b>PCF</b> frozen platelets
<b>NATO</b> North Atlantic Treaty Organization	<b>PDS</b> Personnel Daily Summary
<b>NBC</b> nuclear, biological, and chemical	<b>PFF</b> fresh frozen plasma
<b>NC</b> node center	<b>PLGR</b> precision lightweight global positioning system receiver
<b>NCA</b> National Command Authorities	<b>PLL</b> prescribed load list
<b>NCO</b> noncommissioned officer	<b>plt</b> platoon
<b>NICP</b> national inventory control point	<b>PMCS</b> preventive maintenance checks and services
<b>NSN</b> national stock number	<b>POL</b> petroleum, oils, and lubricants
<b>NV</b> naval vessel	<b>POS/NAV</b> position/navigation
<b>OCONUS</b> outside continental United States	<b>PVNTMED</b> preventive medicine
<b>ODCSLOG</b> Office of the Deputy Chief of Staff for Logistics	<b>QSS</b> quick supply store

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<b>QSTAG</b> Quadripartite Standardization Agreement	<b>SINCGARS</b> single channel ground and airborne radio system
<b>RAU</b> radio access unit	<b>SKO</b> sets, kits and outfits
<b>RBC/RCZ</b> red blood cell	<b>SOI</b> signal operation instructions
<b>RCF</b> frozen red blood cells	<b>SOP</b> standing operating procedure(s)
<b>regt</b> regiment	<b>SPBS-R</b> Standard Property Book System-Revised
<b>ROP</b> reorder point	<b>spt</b> support
<b>RTD</b> return to duty	<b>sqd</b> squad
<b>RX</b> repairable exchange	<b>sqdn</b> squadron
<b>S1</b> Adjutant (US Army)	<b>sta</b> station
<b>S2</b> Intelligence Officer (US Army)	<b>STANAG</b> Standardization Agreement
<b>S3</b> Operations and Training Officer (US Army)	<b>STANFINS</b> Standard Financial System
<b>S4</b> Supply Officer (US Army)	<b>TACCS</b> Tactical Army CSS Computer System
<b>SAMS</b> Standard Army Maintenance System	<b>TAMMIS</b> Theater Army Medical Management Information System
<b>SARSS</b> Standard Army Retail Supply System	<b>TB</b> technical bulletin
<b>SCC</b> system control center	<b>TDA</b> table(s) of distribution and allowances
<b>sec</b> section	<b>tech</b> technician
<b>SECDEF</b> Secretary of Defense	<b>TI</b> technical inspection(s)
<b>SEN</b> small extension node	<b>TM</b> technical manual
<b>SGT</b> sergeant	<b>TMDE</b> test, measurement, and diagnostic equipment
<b>SIDPERS</b> Standard Installation/division Personnel System	<b>TMMMC</b> Theater Medical Materiel Management Center
<b>SIGSEC</b> signals security	
<b>SIMLM</b> Single Integrated Medical Logistics Manager	

**TO** theater of operations

**TOC** tactical operations center

**TOE** table(s) of organization and equipment

**TPFDD** Time-Phased Force Deployment Data

**trmt** treatment

**TSOP** tactical standing operating procedure

**UL** unit level

**ULC** unit-level computer

**US** United States

**USAF** United States Air Force

**USAMMA** United States Army Medical Materiel Agency

**USJMTF** United States Joint Message Text Format

**UTM** universal transverse Mercator (grid)

**WB/WBZ** whole blood

**XO** executive officer

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