CHAPTER 3

MEDICAL COMPANY OPERATIONS

3-1. General

a. The medical company must be prepared at all times to deploy on short notice to accomplish its mission. This chapter discusses the steps a medical company must take to prepare for deployment from its CONUS location to an overseas TO and how the company will be employed once in the theater.

b. Appendix C discusses operations during a mass casualty situation.

3-2. Mobilization and Deployment

a. When a crisis situation, natural disaster, or a declared war occurs, US Army Forces may be mobilized to respond to the situation. The determination to mobilize military forces is made by the National Command Authorities (NCA) through the DOD. If US Army Forces are tasked to mobilize, the mobilization is managed through US Army Forces Command (FORSCOM) using the Time-Phased Force Deployment List (TPFDL).

b. Mobilization requires extensive and comprehensive planning to ensure that it can be accomplished in an efficient and timely manner. All military units have preexisting plans for use in the event of mobilization. Active Component CHS units maintain a readiness posture which permits them to respond (mobilize) for a short-notice deployment. The CHS commander, therefore, uses the OPLAN as the starting point to prepare his unit for mobilization. Areas to consider when mobilizing include—

(1) *Emergency operations center.* The command establishes an emergency operations center (EOC) at its CONUS location. This element is staffed by key personnel and monitors the unit's progress as it prepares for deployment. The EOC manages and coordinates activities within the unit and with elements of the supporting installation.

(2) *Operations.* Once notified of mobilization, all unit personnel must be contacted (usually by means of an alert roster) and provided initial instructions. These instructions may require recall to the unit area and the cancellation of leaves and temporary duties (TDYs) (except MOS-producing schools). The readiness posture of the unit is monitored and the status reported as required. If applicable, processing for oversea movement/replacement (POM/POR) is monitored. Movement plans are developed and coordinated with transportation authorities for needed support. The unit is prepared for movement to a mobilization site or port of embarkation (POE). Coordination is required for CHS at the mobilization site or POE as organic medical supplies and equipment are loaded and not available for use.

(3) *Security and intelligence.* Information and intelligence data are gathered on the threat (to include the medical threat) in the deployment area, and plans are modified as required. Security activities include, but are not limited to—

- Obtaining individual security clearances.
- Training procedures for the handling, transporting (to include escort duties), and disposing of classified documents.
- Appointing military censors and obtaining necessary equipment to accomplish the mission.
- Conducting OPSEC training, to include Subversion and Espionage Directed Against the US Army (SAEDA).
- Developing the signal security plan, to include—
  - Nature and amount of information to be transmitted or protected.
  - Communications system capabilities and limitations.
  - Selection of available signal security kits and instructions for use.
  - Basic load, source, and manner of obtaining key cards, authentication codes, and other security-related codes and materials.
  - Compromise and supervision monitoring of communications security (COMSEC) material.
  - Operational procedures to include electronic protection and any other special requirements.
- Identifying all intelligence requirements and submitting requests for needed information (to include medical intelligence for the AO).
- Reviewing plans for conducting classified moves (AR 220-10).
- Obtaining necessary maps.
- Briefing the commander and staff on the threat (to include the medical threat) in the AO.
- Restricting movement and communications of unit personnel in secured staging areas, such as telephone usage, control pass procedures, and conducting mission briefs.
- Reviewing signal security requirements and practices.
- Identifying linguistic personnel in the unit.

- Destroying classified documents not accompanying the unit, as applicable.

(4) *Training.* Initial and refresher training can be conducted in the following areas:

- Preventive medicine concerns in the AO include—
  - Field sanitation teams and personal hygiene (FM 21-10 and FM 21-10-1).
  - Endemic and epidemic disease prevalence.
  - Poisonous plants, wild animals, arthropods, and reptiles.
  - Climate and associated environmental concerns.
  - Pest management.
  - Field waste.
- Combat stress control concerns include—
  - Review of stressors associated with deployment and the specific operational scenario.
  - Individual, buddy, and leader coping strategies and techniques.
  - Sleep planning.
  - Home-front issues and family support groups.
  - Recognition and management of BFCs and MCSBs.
- Convoy procedures.
- Air deployment (rigging and loading/unloading).
- Operational and signal security.
- Orientation to deployment area, to include political considerations, customs, beliefs, language, laws, and other related host-nation (HN) topics.
- Military occupational specialty refresher training.

(5) *Logistics.* Logistics support (all classes) is an essential function that requires thorough planning and coordinating to ensure that the support needs of the force are met. Actions required include—

- Ensuring a complete basic load of Class I supplies is obtained, to include water.
- Coordinating (with the support battalion S4) field feeding support for the unit while en route to and at the mobilization site.
- Ensuring all personnel have required individual and organization clothing and equipment.
- Ensuring there are sufficient expendable supplies available and requisitioning or obtaining shortages.
- Developing loading plans.
- Inspecting MESs for completeness and requisitioning or obtaining shortages.
- Coordinating the turn in of any table of distribution and allowances (TDA) equipment prior to deployment, if applicable.
- Determining petroleum, oils, and lubricants (POL) requirements and requisitioning or obtaining shortages.
- Computing unit basic load and submitting requisitions for ammunition requirements.
- Ensuring all equipment listed in the table of organization and equipment (TOE) is on-hand and serviceable.
- Updating the PLL to reflect newly required equipment and requisitioning or obtaining shortages.
- Inspecting all equipment for serviceability, repair, and/or replacement.
- Coordinating for required services, such as finance, legal, transportation, and laundry and bath.
- Inspecting all medical supplies and equipment for expiration dates and serviceability.
- Coordinating for engineer support, if required.

c. When the unit is deployed, the commander is responsible for coordinating with the support battalion S4 for the transportation to move the organic vehicles, personnel, equipment, and supplies to the POE. If the unit personnel are being transported to the AO by the same mode (air, sea, or rail) as the vehicles and equipment, coordination is required to provide essential services for

these personnel while en route to and at the POE. Organic equipment and supplies (such as medical) cannot be used in the staging area, as they are already packed for shipment. Area medical support is required.

d. If the unit personnel are transported separately to the AO, they should arrive a few days prior to the vehicles, equipment, and supplies. This allows them to off load the equipment, supplies, and vehicles and ready them for movement to their AO. Once the unit property is received at the point of entry, it is inspected for damage and off loaded. The unit is assigned an initial off-loading area where it moves its vehicles, military vans (MILVANs), and trailers to. Fuel is available for refueling vehicles. Once supplies and equipment are moved to the off-load area, the unit is responsible for its security. In this area, a thorough inspection of all vehicles, equipment, and supplies is made for damage or loss. Necessary repairs are made or are coordinated for through the support maintenance element. Requisitions for replacement of unusable supplies, equipment, or vehicles (damaged beyond repair) are initiated through the in-theater C^2 element. Loads are reconfigured according to the unit loading plans.

e. Orientation to the AO should include discussions in the following areas:

- Mission update.
- Update on OPLANs and OPORDs.
- Current threat update, to include the medical threat.
- Emergency warning signals.
- Rules of engagement.
- Combat health support issues, to include PVNTMED measures and CSC.
- Available support, to include HN support.
- Supply and resupply procedures and supporting health service logistics element.
- Convoy operations (Appendix J).
- Personnel restrictions, curfews, and pass procedures.
- Status of Forces Agreements, if applicable.
- Security requirements, to include COMSEC.
- Local laws, customs, and religious beliefs.
- Religious support.

- Uniform requirements.
- Vehicle and unit movement requirements.
- Personnel replacements.
- Personnel, morale, and finance support elements.

3-3. Site Selection

a. Site selection is an important factor impacting on the accomplishment of the medical company mission. Improper site selection can result in inefficiency and possibly danger to unit personnel and patients. For example, if there is insufficient space available for ambulances to turnaround, congestion and traffic jams in the MTF AO can result; or, if the area selected does not have proper drainage, heavy rains may cause flooding in the unit and treatment areas.

b. Medical companies are normally established within a base cluster with other corps or division units for security. Although the base cluster provides security, there are certain considerations which influence where within the base cluster the medical company is established. The senior commander within a base cluster is also the base cluster commander and operates the base cluster operations center (BCOC). The medical company coordinates site selection and obtains approval from the BCOC prior to the establishment of the company area. The medical company will be competing with other CSS units for space and location within the base cluster. Many of the factors which influence CHS operations will also apply to CSS units. It is important, therefore, to stress the unique requirements of the medical mission. The BCOC provides guidance on security and briefs the medical company on base cluster operating procedures and locations of supported units and elements. Within the base cluster, the MTF should not be placed near hazardous materials (such as POL and ammunition) or storage areas, motor pools, and waste disposal sites. If possible, the MTF should be established toward the center, rather than on the perimeter of the base cluster.

c. Additional site selection criteria include–

(1) *Commander's plan and mission.* The specifics of the OPLAN, the manner in which it, will be executed, and the unit's assigned mission can affect the selection of a specific site. The requirements for an area which is only to be used for a short period of time can differ significantly from an area which is expected to be used on an extended basis. For example, if the medical unit's mission requires that it relocate several times a day, complete treatment and holding areas will not be established; only essential services, shelters, and equipment will be used. On the other hand, if it is anticipated that the unit will be located at one site for an extended period of time, buildings or preestablished shelters, if available, may be used.

NOTE

Buildings of opportunity should be inspected by the engineers prior to use as an MTF.

(2) *Routes of evacuation and accessibility*. Ground evacuation is the principal means of evacuation for patients injured in the forward areas. The MTF must be situated so that it is accessible from a number of different directions and/or areas. It should be situated near and be accessible to main road networks and air corridors, but not placed near lucrative targets of opportunity (such as bridgeheads). The site should not be so secluded that incoming ambulances have difficulty locating the MTF.

(3) *Expected areas of patient density*. To ensure the timely delivery of CHS, the clearing station must be located in the general vicinity of the supported forces (or Echelon I facilities supported). Without proximity to the areas of patient density, the evacuation routes will be unnecessarily long, resulting in delays in both treatment and evacuation. The longer the distance is that must be traveled, the longer it takes for the patient to reach the next echelon of care. Further, this time delay reduces the number of ambulances available for clearing the battlefield as a number of ambulances will be in transit to the clearing station at any given time.

(4) *Hardstand, drainage, obstacles, and space.*

- The site should provide good drainage during inclement weather. Care must be taken to ensure that the site selected is not in or near a dry river or stream bed, has drainage that slopes away from the MTF location and not through the operational area, and that there are not any areas where water can pool.

- The ground, in the selected area, should be of a hard composition that is not likely to become marshy or excessively muddy during inclement weather or temperature changes, This is particularly true in extreme cold weather operations where the ground is frozen at night and begins to thaw and become marshy during daylight hours. Further, the area must be able to withstand a heavy traffic flow of incoming and departing ambulances in various types of weather.

- The area selected should be free of major obstacles that will adversely impact on the unit layout (such as disrupting the traffic pattern), cause difficulties in erecting shelters (overly rocky soil), or require extensive preparation of the area before the MTF can be established.

- The space to establish the treatment and administrative areas of the unit is dependent upon the mission, expected duration of the operation, and whether NBC operations are anticipated. The site must be large enough to permit dispersal of the unit elements and expansion should augmentation be required. When fully establishing the site, at least 4 acres of land are required for the treatment and administrative areas exclusive of the helipad and motor pool requirements.

(5) *Communications.* When establishing communications, the selected site must enable communications while minimizing the enemy's ability to intercept and locate transmissions. Refer to the FM 24-Series for communications considerations and procedures.

(6) *Likely enemy targets.* The site must not be closely located to likely enemy targets. These include—

- Ammunition storage facilities or ATPs.
- Petroleum, oils, and lubricants points.
- Motor pools.
- Main supply routes (MSRs) (must be accessible from but not directly next to).
- Bridges.
- River crossing points.
- Strategic towns and cities.
- Industrial complexes or factories.

(7) *Cover and concealment.* The area should provide maximum cover and concealment without hampering mission accomplishment or communications capability. Overhead cover is desirable for protection from biological and chemical contamination in the event of an attack.

(8) *Landing sites (zones).* The site selected must have sufficient space available to serve as a landing site for incoming and outgoing air ambulances. Sufficient space must be allocated for establishing a landing site for contaminated aircraft downwind of the unit and treatment areas. Additional site selection considerations for a landing site are contained in FM 8-10-4 and FM 8-10-6.

(9) *Perimeter security.* The site selected should be easily defendable and maximize the use of available terrain features and defilade for cover and concealment. The extent of perimeter security requirements is dependent upon whether the unit is included in a base cluster, or its placement within the base cluster, or if it is solely responsible for its own security. A discussion on perimeter security and the Geneva Conventions is contained in FM 8-10.

(10) *Flow of traffic (patient and vehicles).* In establishing the traffic patterns within the unit area, three significant areas must be addressed.

- The selected site must permit the establishment of the treatment and administrative areas in such a manner as to maximize the smooth flow of patients through the triage, diagnostic, and holding areas. Overlapping internal traffic patterns should be minimized.

- The external traffic pattern must afford a smooth flow of vehicle traffic through the unit area. There must be sufficient space allocated for ambulance turnaround once the patient has been delivered to the triage area. Intersections accommodating cross-traffic should be avoided as they present the potential for traffic jams and accidents. The flow of traffic should be in one direction only.

NOTE

Two-way traffic can cause confusion, particularly when loading and unloading patients.

- A route from the landing site to the triage area must be established which minimizes the distance the patient must be carried and which affords easy access to the treatment area.

(11) *Equipment.* Certain pieces of equipment require strategic placement within the company area. In selecting the site, the placement of this type of equipment must be considered. For example, trailer-mounted, 10 kilowatt (KW) generators must be placed in such a manner to enhance their safe operation and to reduce their heat signature and noise level, yet be close enough to unit and treatment areas that the limited amount of cable can reach. It is preferable to maximize the use of natural terrain features within the site to provide a portion of this shielding rather than having to rely sole on the use of sandbags.

(12) *Decontamination area.* The site should be large enough to provide an area for patient decontamination (Appendix K). The specific site selected to establish the decontamination station must be downwind of the unit and treatment areas.

(13) *Geneva Conventions adherence.* The Geneva Conventions afford a medical unit a certain degree of protection from attack. The extent to which the combatants and irregular forces on the battlefield are adhering to the provisions of the Geneva Conventions has a bearing on site selection in that it may dictate the degree of required security for the unit.

3-4. Unit Layout

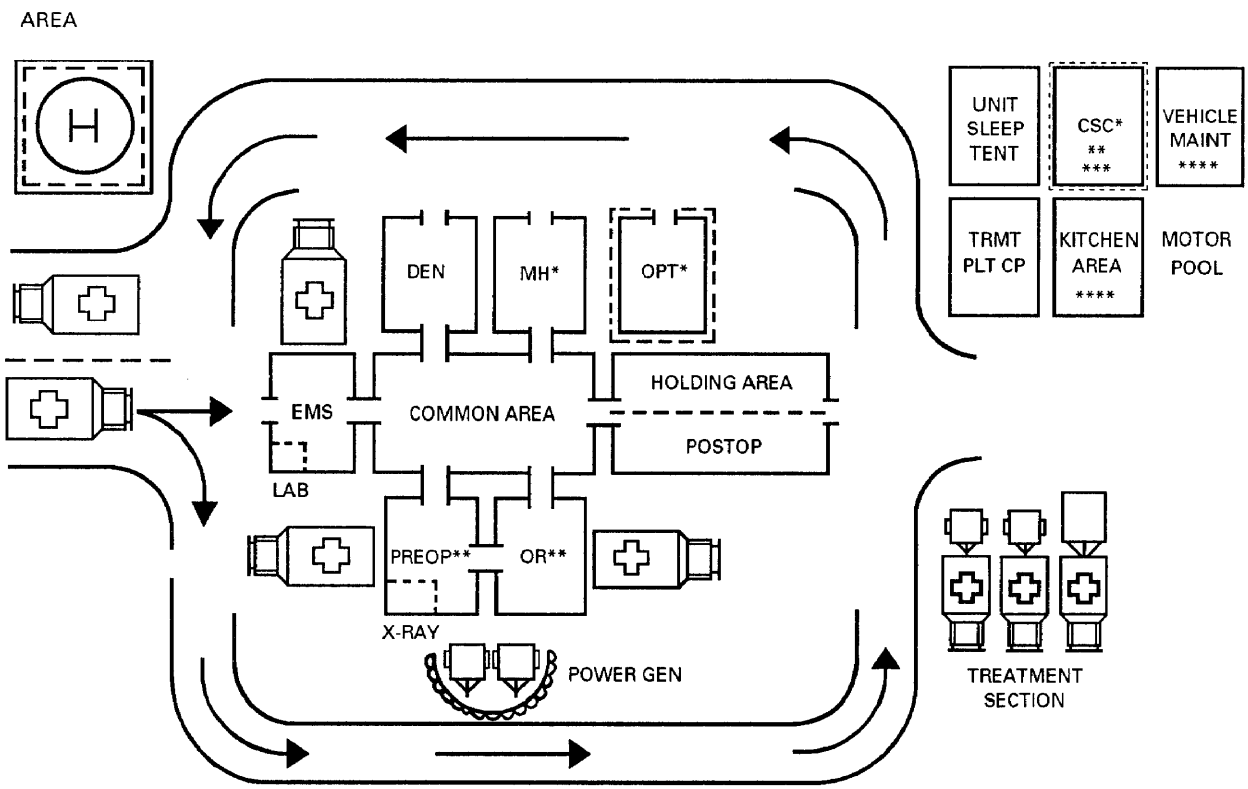
The medical company establishes the clearing station. This facility provides Echelons I and II medical care to supported troops on an area basis.

a. The facility must be laid out in a manner which maximizes patient flow from one element to another within the MTF area. Overlapping internal traffic patterns should be avoided.

b. When establishing the MTF, sufficient space must be allocated to accommodate the possible augmentation of the treatment element. This augmentation may include air and ground

ambulances, surgical detachments, patient-holding elements, CSC elements and/or units, or other specialty teams or elements.

c. A suggested layout for a clearing station with surgical and CSC augmentation is contained in Figure 3-1.



CSC	COMBAT STRESS CONTROL "FATIGUE CENTER"***	OPT	OPTOMETRY SERVICE AREA
DEN	DENTAL CARE AREA	OR	OPERATING ROOM AREA
EMS	EMERGENCY MEDICAL SERVICE AREA	PREOP	PREOPERATIVE CARE AREA
LAB	MEDICAL LABORATORY AREA	POSTOP	POSTOPERATIVE CARE AREA
MH	MENTAL HEALTH	TRMT PLT CP	TREATMENT PLATOON COMMAND POST
		X-RAY	X-RAY AREA

* LOCATED IN THE MSMC CLEARING STATION ONLY
** AUGMENTATION (INCLUDES PERSONNEL AND EQUIPMENT)
*** FATIGUE CENTER IS LOCATED AWAY FROM TREATMENT AREA
**** IF NOT CENTRALIZED AT BATTALION

Figure 3-1. Suggested layout of a clearing station with surgical and combat stress control augmentation.

3-5. Company Command Post Operations

The command post (CP) is the principal facility employed by the medical company commander to C^2 unit CHS operations. It is typically staffed with the commander, executive officer (health services administration assistant / medical operations officer), first sergeant, and other individuals the commander designates (depending on the operation), such as the NBC NCO, communications chief, and clerk-typist.

a. The commander establishes priorities and defines the level of authority within the CP. The extent of operational authority given to members of the CP staff is based on the commander's desires and the staffs experience. The exact operational authority is defined in the TSOP. The commander also establishes procedures which clearly identify those CP activities and functions that must be accomplished on a routine basis to support the operation and those that require command approval. In all situations, the commander will be kept informed.

b. During the course of support operations, the CP receives, analyzes, coordinates, and disseminates information which is critical to successfully accomplish the mission. The tools used in the CP to facilitate C^2 are a journal, a situation map, and an informational display.

- *Journal.* A journal is an official chronological record of events about a unit or a staff section during a given period of time. A journal is prepared and maintained during combat, training exercises, operations other than war (OOTW) (such as disaster relief or humanitarian assistance operations), and as directed by the commander. The journal is maintained on DA Form 1594 (refer to FM 101-5 for additional information and sample journal entries).

- *Situation map.* A situation map is a graphic presentation of the current organizational situation. A general situation map may be supplemented with one or more overlays showing specific items (such as barricades or obstacles). At the company level, one situation map may be used; however, specific functional areas may maintain their own specific situation map (such as medical evacuation with preplanned patient collecting points, AXPs, and forward-sited ambulance assets). Situation maps should be updated per the TSOP with information obtained from higher headquarters and changes in the tactical situation. Situation maps, as a minimum, show–

  - Symbols, as required, to portray the friendly and enemy situation (refer to FM 101-5-1 for information and guidance on the use of symbols).
  - Boundaries and front-line trace applicable to the current operations.
  - Other control measures applicable to the operation (such as phase lines).
  - Location of CPs for adjacent units, supported units, and higher headquarters.
  - Location of supported units.

- Civilian installations, allied military installations, airfields, seaports, and rail networks, as appropriate.

- *Information display.* An information display, automated or manual, may be required to supplement details contained on the situation map or to make information available that is not suitable for posting on the situation map. Information associated with the situation map is located adjacent to it for easy viewing and posting. A typical display is in the form of a chart which reflects information such as task organization, personnel status, supplies and equipment status, organization and strengths (personnel, equipment, and health status) of the unit, and communications status. An information display should follow these guidelines:

  - The commander determines which information will be displayed.
  - The display must readily show the essential information.
  - The display must permit prompt changes.

NOTE

A display that is not up to date is misleading and serves no useful purpose.

c. The CP must be staffed and equipped for 24-hour operations.

3-6. Treatment Platoon Operations

a. The area support section (area support treatment squad and patient-holding squad) of the treatment platoon establishes the clearing station. The clearing station is discussed in detail in paragraph 3-7.

b. The treatment platoon's treatment section consists of treatment squads which can operate for limited periods of time (up to 48 hours) separate from the clearing station operation. These squads can be used to augment the clearing station operation during mass casualty situations. Further, these squads can be used to—

- Provide DS to maneuver unit medical platoons. These treatment squads can be routinely placed under the OPCON of the battalion surgeon to provide this support.

- Reinforce/augment maneuver unit medical platoons in task force (TF) operations, during periods of high patient densities, in areas with a temporary troop concentration (such as marshaling areas), or in mass casualty situations.

- Facilitate the movement of the clearing station from one location to another. A treatment squad can be echeloned forward to establish an MTF at a new location. The echeloning of elements allows the old treatment site to remain operational until the new site is established.
- Regenerate severely attrited BASs.
- Staff designated points in the ambulance shuttle system, as deemed necessary.

3-7. Clearing Station Operations

The term *clearing station* is the generic term used in designating an Echelon II MTF in the BSA, DSA, CSA, and COMMZ and in support of the separate brigades and ACRs. This MTF is operated by the medical company treatment platoon's area support section. In the DSA, in the separate brigade, and in the ACR support area, it is collocated with the MH, dental, and optometry sections. The division clearing station provides both Echelons I and II medical care support to all divisional and nondivisional units without organic medical resources operating within its AO. The DSA clearing station also serves as the backup for the BSA clearing station. The clearing station established by the medical company/troop of the separate brigade/ACR provides Echelons I and II medical care to all units operating in its AO. The clearing station established by the ASMC in the corps and COMMZ provides Echelons I and II medical care on an area basis for units within its AO.

a. Seriously ill or wounded patients arriving at the BSA clearing station are provided medical treatment and stabilized for further evacuation. Patients reporting with minor injuries, BF, and illnesses are treated within the capability of attending medical personnel. These types of patients are either held for continued treatment for up to 72 hours; evacuated to the DSA clearing station for further treatment, evaluation, and disposition; or treated and immediately returned to duty. Other functions of this MTF include–

- Providing consultation and limited clinical laboratory and x-ray diagnostic procedures.
- Recording all patients seen or treated at the MTF.
- Verifying the information contained on the FMCs of all patients evacuated to the facility.
- Monitoring casualties, when necessary, for NBC contamination prior to medical treatment.
- Ensuring that decontamination of NBC-contaminated patients is accomplished.

NOTE

Patient decontamination is performed by eight nonmedical personnel designated by the echelon commander and supervised by medical personnel. (For additional information, refer to Appendix K and FM 8-10-7.)

b. Evacuation from the clearing station is performed by ground and air ambulances from the corps medical evacuation battalion.

c. Ammunition and individual weapons belonging to patients to be evacuated further to the rear are collected by clearing station personnel and returned to the S4 of the supported brigade or as directed by the TSOP. Patients who are being held at the holding facility but expected to RTD within the 72 hours may retain their weapons or such equipment can be given to the unit armorer for safekeeping pending the patient's final disposition. Patients traveling to the division rear for routine medical consultation will retain their individual weapons and equipment as they will RTD from that echelon.

d. A discussion of site selection criteria for the unit layout and establishment of the clearing station is presented in paragraphs 3-3 and 3-4.

3-8. Ambulance Platoon Operations

Ambulance platoon operations are an essential link in clearing the battlefield of the wounded, thus enabling the tactical commander to exercise control over the tactical situation.

a. Administratively, it is important that ambulance drivers are well briefed on the tactical situation in the area in which they will be providing medical evacuation support. A thorough route reconnaissance must be accomplished and strip maps developed before ambulance crews begin medical evacuation operations. During the planning process and continuously once the operation has begun, the ambulance platoon leader and the medical company/troop commander must prepare casualty estimates for the tactical operation to ensure there is sufficient CHS coverage for the operation. The medical evacuation plan should include an overlay depicting (at a minimum) the location of supported units, patient collecting points, Echelon I facilities, and AXPs. The platoon leader should also obtain both the CSS and operations overlays for the tactical operation. These overlays provide valuable information, such as the location of mine fields, obstacles and barriers, artillery target reference points, and air corridors. This information is essential to enhance the survivability of the ambulance crews by decreasing incidents of fratricide and enhancing mobility of the evacuation assets. The ambulance platoon leader and platoon sergeant must be proficient at map reading, terrain analysis, communications, and reading operational graphics (FM 101-5-1) in order to successfully accomplish the medical evacuation mission. The ambulance platoon leader establishes his location so that he can best control the medical evacuation operation. His location will vary with each tactical operation and can include-

- Combat trains.
- Patient collecting points.
- Ambulance exchange points.
- Relay points or other locations along the ambulance shuttle system.

- Medical company / troop area.
- Central location behind supported units.

b. One of the keys to successfully accomplishing the medical evacuation mission is communications and control. It is essential that communications be effected and maintained between the supported units, the ambulance assets, the ambulance platoon leadership, and the supporting corps evacuation elements. This can be accomplished in a number of ways. Division ambulances are equipped with radios which can be used to pass medical evacuation request information and instructions. Supporting corps ambulances, however, may not be radio-equipped. Medical evacuation information must, therefore, be passed through medical channels by returning ambulances crews, and information is then relayed back through the ambulance crews returning to the forward areas. The ambulance platoon TSOP must also include procedures concerning how to conduct evacuation operations during periods of radio silence. In order for the ambulance platoon leader to ensure his assets are being efficiently employed, he must stay abreast of the tactical situation, the tempo of the battle, and the areas of patient density.

c. There are a number of employment options available to the medical commander to ensure there is timely and efficient medical evacuation coverage for the units supported and that contact is maintained with these units.

(1) *Forward siting of ambulance assets.* The medical company / troop ambulances can be forward sited with Echelon I facilities. This provides immediate and responsive support to those facilities.

(2) *Use of the ambulance shuttle system..* The ambulance shuttle system is an effective and flexible method of employing ambulances during combat. It consists of one or more ambulance loading points, relay points, and when necessary, ambulance control points, all echeloned forward from the principal group of ambulances, the company location, or basic relay points as tactically required. The various points within the ambulance shuttle may or may not be manned. If they are manned, the echelon of care designating the point irresponsible for providing that support. A detailed discussion of the employment of the ambulance shuttle system and its various components is contained in FM 8-10-6.

(3) *Patient collecting points.* Patient collecting points are established along routes where it is anticipated that wounded soldiers traveling to the rear would naturally follow (lines of patient drift). These points can be established in areas such as where terrain canalizes traffic or locations near or adjacent to improved roads. In addition to ambulance assets, treatment assets may also be collocated. These points may or may not be staffed with EMT and medical evacuation personnel. As with the ambulance shuttle system, the echelon of care designating the point is responsible for its staffing.

(4) *Ambulance exchange points.* Ambulance exchange points should be located where they can best provide the required support. Ambulance exchange points are a place on the ground where a patient is transferred from one evacuation platform to another (such as litter to vehicle; tracked vehicle to wheeled vehicle; ground vehicle to air ambulance) en route to an MTF. Their use

is extremely important when a tracked vehicle is evacuating patients. As tracked vehicles are slower than wheeled vehicle, AXPs should be established as close as possible to the supported units to reduce the time and distance requirements for the tracked vehicles. The AXP may be an established point in an ambulance shuttle, or it may be designated independently.

(a) These points may be staffed or unstaffed. Points which are not staffed may serve as rendezvous points for the rapid transfer of a patient from one transportation mode to another. In most cases, these points will not be staffed. An AXP is a predetermined point which may be activated for such events as the passing of phase lines and/or for specific time periods. Ambulance exchange points are moved frequently to reduce their signature and enhance the survivability of the ambulance assets.

(b) An AXP may serve from three battalions (FSMC); three brigades (reinforcing mission) (MSMC); or a specific number of nondivisional Echelon I facilities (ASMC); therefore, if possible, the AXP should be centrally located to reduce ambulance turnaround and enhance the timely execution of the medical evacuation mission. This may not, however, always be possible due to terrain or other factors. The distance from the supported Echelon I facilities is also dependent upon the terrain, the tactical situation, the type of vehicles being operated (wheeled versus tracked), and the type of operation being conducted (offense, defense, or retrograde). Additionally, the medical company/troop has an area support mission within the BSA, DSA, or CSA. All ambulance assets cannot be forward sited to units in contact as sufficient assets must remain in the support area to accomplish the area support mission.

3-9. Communications

a. The success of CHS operations is dependent upon the commanders ability to communicate with his deployed elements, higher headquarters, and supporting and supported units. The medical treatment, evacuation, and health service logistics elements of the company are routinely required to establish and maintain communications with supported and supporting units. The medical company is deployed by its parent unit: the support battalion, support squadron, or ASMB. Operationally, the medical company is often required to communicate with elements at echelons above its parent headquarters (particularly in 00TW) to provide information and to coordinate CHS over long distances. It is necessary that the company's communications assets have a long-range capability and be redundant.

b. The commander must communicate to control his subordinate elements, to pass information, and to coordinate CHS. He ensures that required communications are available and functioning.

(1) The commander analyzes each situation to determine the effects the METT-T factors may have on his ability to communicate. He reduces the adverse effects by—

- Proper positioning of elements,
- Establishing visual signals for critical events (such as using pyrotechnics to mark a position).

- Requesting a relay site be established by the battalion/squadron.
- Other similar measures.

(2) Signal planning enables the commander to reduce the adverse effects of METT-T and to enhance the advantages presented (such as reducing the unit's electronic signature through using available terrain features). The signal plan should be comprehensive yet simple in its execution, even during times of radio silence or during the absence of communications capability.

(3) There are several means of communications available to the commander. He should use them to compliment each other. They are—

(a) Radio. This is probably the most common means of communications. Radios are well suited for deployed medical elements and those moving from one position to another. The company command net is the C^2 net for the unit. The medical company employs Single Channel Ground and Airborne Radio System (SINCGARS) radios equipped with a KY-57 tactical wideband COMSEC device for secure communications and an improved high frequency radio (IHFR) (amplitude modulated [AM]) for long-range communications. These radios allow the commander to operate in the battalion command net, his company's command net, the DMOC, or the supporting medical group medical operations net. A detailed discussion and illustration of radio nets is provided in Appendix L. When planning radio communications, the commander considers the following factors:

- Constant radio contact is not essential for all operations. Often due to terrain, radio limitation, and type of operation, radio contact will be lost. At other times, signal security will require radio listening silence be imposed. The commander must determine when and where communications will be critical during the operation and then ensure the required capability is available.

- He must plan for the location and movement of the company's treatment and evacuation elements to ensure he knows when the terrain may disrupt radio communication. The key lies in maintaining line-of-site within the planning ranges of his radios. These ranges can be extended two to three times through the use of field expedient antennas (refer to FM 24-18 and FM 24-19). When required, the commander may establish or request his battalion to setup a relay site.

- He must ensure that all leaders know what to do in the event radio communications are lost. Redundant communications is provided through the AM medical operations net for communications with higher headquarters.

(b) Wire and mobile subscriber equipment. Wire and mobile subscriber equipment (MSE) usually provides better communications because the systems are not subject to interference from weather, terrain, and man-made obstacles. They are less subject to enemy electronic warfare (EW) action, such as jamming and direction finding. They are, however, subject to breakage by direct and indirect fire and ground traffic.

(c) Visual signal. The company commander may use visual signals such as panels and pyrotechnics to identify friendly positions and helicopter landing sites. Pyrotechnic signals may be prescribed by signal operating instructions (SOI), the TSOP, or the OPORD.

(d) Sound. Sound signals, such as whistles, sirens, and gongs, may be used as prearranged signals (for example, to spread the alarm to warn of an enemy ground attack).

(e) *Messenger.* Aside from personal contact, messengers are the most secure and reliable communications means. Messengers are ideal for transmitting lengthy written messages. Their speed depends on the mode of travel, the tactical situation, and terrain. They are vulnerable, however, to enemy action in the forward areas, and they lack sender-to-receiver contact. Hard-copy messages are preferred over oral messages. If an oral message is sent, have the messenger repeat the message to ensure he understood it. In medical units, ambulance personnel may be used as messengers, delivering information and requesting resupply from forward deployed medical elements.

(4) Communications nets for medical companies are illustrated in Appendix L.

c. The medical company employs the following communications equipment, tactical computer equipment, and position location/navigation (POS/NAV) devices:

(1) Combat net radio equipment includes both the IHFR AM system and the SINCGARS. These systems serve as the primary means for voice transmission of C^2 information and as a secondary means for data transmission. Data transmission is required when data transfer requirements cannot be made by the MSE system. The IHFR series and the AM radios provide mid-to-far range communications capabilities. They interface with other AM high frequency radios which are antijamming, provide secure voice and data capability, and have push-button frequency selection. The SINCGARS series and FM radios use a 16-element keypad for push-button tuning which allows for simple and quick operation. They are capable of short-range operation for voice or digital data communications. Also, they are capable of single-channel operation for interface with the AN/VRC-12 series or other FM radios. In addition, they can operate in a jam-resistant, frequency-hopping mode, which can be changed as needed. A discussion of radios and associated equipment allocated to the medical company under current operational facility (OPFAC) rules is provided in Appendix L.

(2) Mobile subscriber equipment is the area common user system (ACUS) within the corps and divisions. It is the backbone of the corps communications system and is deployed from the corps rear boundary forward to the maneuver, battalion's main CP. It provides a secure mobile, survivable communications system capable of passing voice, data, and facsimile (FAX) throughout the corps. Further, it provides a direct interface with echelons above corps (EAC), other services, NATO, and combat net radio (CNR) and commercial communications systems. This ACUS is composed of multiple communications nodes with network features which will automatically bypass and reroute communications around damaged or jammed nodes. This system 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 radiotelephones. A discussion of this equipment is provided in Appendix L.

(3) Tactical computers are employed by MSMCs and medical companies/troops of support battalions/squadrons of separate brigades and ACRs. A discussion of computer hardware equipment is provided in Appendix L.

(4) Under the OPFAC rule, medical companies are allocated precision lightweight global positioning system (GPS) receivers (PLGRs). This GPS receiver device is designed for individual and vehicle use. When the system becomes available for distribution, it will be particularly employed by ambulance and treatment squads/teams. The POS/NAV device is not necessarily communications equipment but is primarily discussed under the communications title as a matter of convenience and continuity. A discussion on the PLGR device is provided in Appendix L.

3-10. Rear Operations

a. Rear operations are actions, including area damage control, taken by units, singly or in a concerted effort, to secure and sustain the force, neutralize or defeat enemy operations in the rear area, and ensure freedom of action in deep and close operations.

b. Combat health support units are established within base clusters to afford them the protection offered by the other combat, CS, and CSS forces. Combat health support units are limited by the provisions of the Geneva Conventions in responding to enemy action. (Refer to Appendix A and FM 8-10 for additional information on self-defense and the defense of patients.)

c. Medical units must be prepared to respond to mass casualty situations (Appendix C) that may arise in the rear area. Thorough planning, effective communications and training and rehearsal of these types of operations are required if they are to be successfully executed.