MCRP 4-11.1E

Health Service Support Field Reference Guide

U.S. Marine Corps

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FOREWORD

Marine Corps Reference Publication (MCRP) 4-11.1E, *Health Service Support Field Reference Guide* enables commanders of medical units and commanders of units with organic medical and dental elements, their staffs, and Navy medical augmentation personnel to better understand the Marine Corps health service support (HSS) system. It is designed to disseminate information on the concept of employment of HSS units in an operational environment. In an operational environment includes both medical and dental elements.

MCRP 4-11.1E expands on the doctrine in MCWP 4-11.1, *Health Service Support* and provides specific tactics, techniques, and procedures for medical personnel in support of Marine operating forces. All medical personnel serving with the Marine Corps should read it.

Surgical principles and techniques of individual casualty management are beyond the scope of this publication. That subject is covered in *Emergency War Surgery, Second United States Revision of The Emergency War Surgery NATO Handbook*, a Department of Defense (DOD) publication used by the medical services of all North Atlantic Treaty Organization (NATO) forces.

No supersession.

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Health Service Support Field Reference Guide

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Chapter 1
Fundamentals

The mission of HSS is to minimize the effects that wounds, injuries, and disease have on unit effectiveness, readiness, and morale. This requires the HSS system to return personnel to duty as expeditiously as possible and minimize morbidity and mortality in those who cannot be returned to duty by effective evacuation out of theater in a timely manner.

Although there is a commitment to provide the best possible HSS to the sick and injured in peace and war, the most cost efficient means of maintaining the health of the force is through the promotion of wellness and the prevention of disease and injury.

1001. Functions

Medical plans will include the following functions into the HSS concept of operations:

Health Maintenance

The function of health maintenance includes tasks required to ensure the medical and dental readiness of the unit and its personnel. Included in these tasks are providing routine sick call and physical examinations, conducting and supporting preventive medicine (PM) and definitive dental care, maintaining medical and dental records, and submitting required reports.

Casualty Collection

Casualty collection requires that each unit include in its plans, provisions for selection and manning of locations where casualties may be assembled, triaged, treated, and protected from further injury while awaiting evacuation to the next level of care.

Casualty Treatment

Casualty treatment includes the provision of care that is within the unit's capabilities. Tasks include triage and treatment ranging from self, buddy, and corpsman aid through initial resuscitative care.

Temporary Casualty Holding

Temporary casualty holding requires facilities and services to provide medical treatment and stabilization for sick, wounded, and injured personnel for a limited time. Within medical resources organic to the Marine Corps operating forces, only the medical battalions are staffed and equipped to provide temporary casualty holding.

Casualty Evacuation

Casualty evacuation includes those tasks associated with the movement and ongoing treatment of the sick, wounded or injured from the point of injury or the onset of disease to and between

medical treatment facilities of the force. All units have an evacuation capability. In the absence of a medical transport, any conveyance may be used to evacuate casualties.

1002. HSS and the Command

Commanders are ultimately responsible for the health of their commands. Each commander is provided HSS through organic medical elements or medical elements of a designated supporting structure. When additional medical support is required for a particular operation, requirements must be identified early in the planning process and appropriate units identified and tasked through the operational chain of command.

Medical support planning should follow the tactical planning guidance and policies of the commander and be fully integrated in the Marine Corps Planning Process. See MCWP 5-1, *Marine Corps Planning Process*. The commander's staff develops requirements for support with input from the medical sections. The medical support requirements are incorporated in Annex Q (Medical Services) of the operation plan (OPLAN), operation order (OPORD), and Appendix 9 (Health Services) to Annex D (Logistics/Combat Service Support). **The commander's staff and medical unit commanders must communicate and be involved in all stages of planning.**

Commanders are responsible for communications to include supporting HSS units. Communications capabilities must, at a minimum, provide for—

- Command and control functions.

- Patient evacuation net control/interface.

- Control of ground ambulances/vehicles.

- Communications with detached medical elements and units.

- Data transfer.

1003. HSS Principles

MCWP 4-11, *Tactical Level Logistics,* and MCWP 4.11.1, *Health Service Support Operations*, provide a detailed discussion of HSS as a function of tactical level logistics. MCWP 4-11.1 describes in detail the principles of HSS and states the HSS system will encompass: *conformity, responsiveness, flexibility, mobility, continuity,* and *coordination*.

Like the principles of war and logistics, the principles of HSS are guides for planning, organizing, managing, and executing. The success of HSS depends on its skillful application. These principles are not rigid rules applicable in every situation. Seldom will all of them exert equal influence. Usually, one or two will dominate in a given situation. Identifying those that have priority in a specific situation is essential to establishing effective HSS. The combat service support element (CSSE) commander applies these principles when structuring and organizing the CSSE to address the functions of HSS. Conflicts among the various principles may occur when

applying each in a particular situation.

Conformity

Conformity with the Marine air-ground task force (MAGTF) commander's OPLAN or OPORD is the fundamental element to effective HSS. Only by participating in the development of this plan can the HSS planner ensure adequate support at the right time and the right place.

Responsiveness

The speed with which medical treatment is initiated is extremely important in reducing morbidity and mortality. The efficient allocation of and the judicious location of military treatment facilities (MTF) must optimize access to care.

Flexibility

Since a change in tactical plans or operations may require redistribution of HSS resources to meet the changing requirements, no more medical resources should be committed than are required to support expected casualty estimates. When the casualty load exceeds the means available for treatment (mass casualty situation), it may be necessary to give priority to those casualties who can be returned to duty the soonest, rather than those who are more seriously injured.

Mobility

Since contact with supported units must be maintained, HSS elements must have mobility comparable to that of the units they support. Mobility is measured by the extent to which a unit can move its personnel and equipment with organic transportation. When totally committed to casualty care, an HSS unit can regain its mobility only by immediate patient evacuation.

Continuity

HSS must be continuous since an interruption of treatment may cause an increase in morbidity and mortality.

Coordination

The objective of this principle is to ensure that HSS resources in short supply are efficiently employed and used to effectively support the planned operation. Continuous coordination ensures that medical resources are not placed in areas that interfere with combat operations.

1004. Force Health Protection

Force health protection (FHP) includes all measures taken by the chain of command and the military health system to promote, improve, conserve, and restore the mental or physical well being of personnel across the range of military operations. FHP is accomplished through the promotion of wellness, physical conditioning, medical surveillance, dental readiness and health,

PM, and the establishment of a phased health care delivery system.

FHP employs the right mix of HSS capabilities to provide effective and efficient care. The past HSS philosophy of providing definitive care in theater to maximize return to duty (RTD) has evolved to a philosophy of providing essential care in theater to either RTD within the theater evacuation policy or stabilize them for rapid evacuation to definitive care outside the theater of operations.

Pillars of Force Health Protection

The three pillars of FHP are a healthy and fit force, prevention and protection, and casualty care and management.

The first pillar of FHP promotes a healthy and fit force and provides the commander with Marines and Sailors capable of withstanding the physical and mental rigors associated with combat and other military operations. Effective and enhanced quality of life guards the force against disease and nonbattle injury (DNBI), combat and operational stress reaction (COSR), and other health threats. Wellness requires continuous attention before, during, and after deployment to sustain maximum readiness and operational capability.

The second FHP pillar is casualty prevention and protection; this is the primary focus of Naval HSS. Casualty prevention focuses on the threats posed by enemy forces and occupational and environmental health (EH) threats.

- The enemy threat depends on the enemy's willingness and ability to use force to produce casualties. Aggressive HSS enhances the force's ability to minimize combat injuries resulting from continuous operations, COSR, and/or nuclear, biological, and chemical (NBC) agents.

- The health threat depends on a complex set of environmental and occupational factors that combine to produce DNBI and COSR and are a serious threat to Marines. To counter the health threat there must be a comprehensive disease and environmental surveillance data collection system and countermeasures such as immunizations, chemoprophylaxis, and environmental preventive measures.

- A robust health surveillance system is a critical component of FHP. Deployment health surveillance includes identifying the population at risk, recognizing and assessing hazardous exposures, employing specific countermeasures, and monitoring health outcomes.

In every war for which statistics are recorded, military forces have lost more personnel to disease than to direct combat with opposing forces. Figure 1-1 illustrates the severe impact of disease on combat forces as a percentage of total admissions.

CAUSE/ WARS	WW II 1941-1945	KOREA 1950-1953	VIETNAM 1965-1970

DISEASE/ NONBATTLE INJURIES	**95.9%**	**82.4%**	**62.4%**
BATTLE INJURIES	**4.1%**	**17.6%**	**37.6%**

Figure 1-1. Distribution of Casualties.

HSS personnel are responsible for recommending preventive measures to safeguard the command from potential and actual health threats, risks, and hazards. This is an essential element in the overall effort to conserve the combat effectiveness of the command. Every activity that may affect an individual's mental or physical health is a matter of concern to the commander and his staff.

The medical battalion, force service support group (FSSG) contains the bulk of PM assets in a Marine expeditionary force (MEF). When PM requirements exceed organic capabilities of a supported unit, commanders should submit requests for additional support to the MEF PM officer (PREVMEDO).

Preventive medicine efforts have reduced the incidence of disease in present-day deployments. Weekly disease surveillance was conducted during Operation Desert Shield/Storm and in Somalia during Operation Restore Hope. This provided real time feedback of disease incidence, potential problem areas, and the effect of PM corrective measures. Real time disease surveillance is our most effective weapon in disease and injury control. It should be executed at all levels of care and used to brief commanders on effectiveness of PM measures.

PM personnel support commanders by ensuring the necessary EH controls are planned and carried out for food procurement, potable water, waste disposal, general field sanitation, personal hygiene, vector control, and other necessary public health control measures to maintain the health of the operational forces. Successful PM programs require participation at all levels of command.

The third pillar is casualty care and management, which includes casualty care and patient movement. This builds on the traditional strengths of military medicine: using new technologies and mobility to achieve a lighter, faster, more responsive medical capability. It encompasses care provided from the point of injury through successive phases of medical care, up to and including definitive and rehabilitative management in hospitals in the continental United States (CONUS).

1005. Levels of Care

Medical support within an area of operations (AO) is organized into levels that extend from the front to the rear throughout the area. Each level's capabilities are designed to provide--

- Mobility and capability required to meet basic health care needs of supported operational units.

- Phased treatment, casualty holding, and preparation for evacuation of the sick, wounded or

injured.

Each level of care provides the same treatment capabilities as the level below it, plus new capabilities that differentiate it from the lower level. Marine Corps operating forces HSS is designed to allow flexibility demanded by mission, enemy forces, terrain, and other tactical situations.

Each level of the HSS system is limited by four interacting factors--

- Urgency of the patients' needs.
- Unit mobility.
- Capabilities of HSS personnel, equipment, and supplies.
- Workload of each HSS unit relative to its treatment capacity.

Wartime casualties are evacuated through the HSS system until they arrive at a facility with the capability, time, and bed capacity to begin definitive intervention to return them to duty or prepare them for further evacuation. The site of principal treatment is determined simultaneously by the patient's diagnosis, HSS unit's capabilities, and workload.

An HSS facility in the continuum of care must be defined not only in terms of HSS capabilities, but also by the categories of patients for which it would be the site of principal treatment during combat. For example, the anticipated workload might dictate that casualties with chest wounds be stabilized at a Level II medical battalion surgical company, and evacuated to a Level III facility for thoracic surgery. In this case, the Level III facility would serve as the site of principal treatment for patients requiring thoracic surgery.

Level I, Unit Level (First Responder)

Unit level HSS is provided to the personnel of a unit and its attachments by organic battalion aid stations (BASs) or squadron medical sections. In the case of organizations without organic medical elements, unit level care is provided by medical elements at regimental, group, or support squadron level or other designated medical elements.

The overarching goal of Level I is to save lives by providing early medical stabilization and evacuation. The level of care is based on the abilities of the first person responding to an event that requires medical intervention. Level I includes self-aid and buddy-aid, unit corpsmen, independent duty corpsmen, or other medical personnel. First response requires that the individual have an understanding of the next level of care available and the patient movement system.

Unit Hospital Corpsman (First Aid). The company or squadron corpsman represents the first point where a sick, injured or wounded Marine might receive care. Emergency or lifesaving measures required before a hospital corpsman’s care must be performed by fellow Marines trained in first aid/buddy aid. Care from unit corpsmen includes primary and secondary assessments, followed by emergency or lifesaving measures (establishing and maintenance of airway, control of bleeding, cardiopulmonary resuscitation, treatment for shock, and fracture stabilization). The corpsman's duties include basic medical skills, use of medical equipment and

supplies, and initiation of requests for assistance and evacuation.

Aid Station. This level of treatment is distinguished by the skills of a general medical officer or flight surgeon. Treatment is provided based on a more comprehensive evaluation and treatment plan. This may include restoration of airway, use of intravenous fluids, antibiotics, and application of splints and bandages. These elements of medical management prepare patients for return to duty or evacuation to the appropriate level of treatment.

Shock Trauma Platoon. Shock trauma platoon (STP) support includes collecting, clearing, and evacuating casualties from supported elements and medical units for resuscitative procedures and temporary holding of casualties. Advanced trauma life support capable, the STP bridges the gap between Level I and Level II medical care.

Level II, Force

Level II includes initial emergency resuscitative surgery, coupled with life and limb saving actions. It provides, as soon as tactically possible, a mobile surgical capability within a theater and as close to the battlefield as is tactically possible. It does, however, require operational and logistical support when employed. Location and accessibility of forward resuscitative surgery is critically linked to the capability to evacuate casualties rapidly to the appropriate level of care. The specific tactical situation, time available, evacuation capability, and available resources determine which surgical procedures may be performed. It is essential to establish the capabilities of Level II treatment and the relationship to the next appropriate level of care. The preparation of casualties for further evacuation and treatment at the theater hospital dictates standards of essential care.

HSS units and elements of the FSSG provide force level HSS which includes resuscitation and stabilization. Limited resources preclude the ability to complete long-term courses of health care in a theater. Force level support augmentation may be provided from external resources such as casualty receiving and treatment ships (CRTSs). Moving casualties through the levels of care is coordinated through the medical evacuation system.

Forward Resuscitative Surgery. The forward resuscitative surgery system (FRSS) is a highly mobile, rapidly deployable, trauma surgical unit that will provide emergency surgical interventions required to stabilize casualties who might otherwise die or lose limbs before reaching treatment. The forward resuscitative surgery system has a small logistic footprint in order to support early introduction into the operating area, rapid movement, erection, deployment, and redeployment in forward areas.

Surgical Company. Provides general HSS, including medical, dental, and surgical care, and the temporary holding of casualties. Doctrinally, one surgical company supports one regiment. The surgical company provides the highest level of medical care organic to the Marine Corps.

Casualty Receiving and Treatment Ship. Large-deck amphibious ships are designated for use as CRTSs. This treatment phase is distinguished by applying clinical assessment by a team of medical officers and technician staff. This level of care includes general surgery, basic laboratory, pharmacy, x-ray, dental, and holding ward capabilities. Examinations and

observations can be accomplished in a more deliberate manner. The objective of this phase of treatment is to perform and enhance emergency procedures that constitute initial resuscitative surgery and forestall death or loss of limb and/or body function. Patients who need a more comprehensive scope of treatment are evacuated to the level of treatment required by their condition.

Levels III and IV, Theater

Level III (Essential Care), care within the theater, is characterized by the theater hospital. The theater hospital is at the core of ensuring quality health care to our forces. Key to success for the theater hospital is the ability to provide care within 12 hours from time of injury. The theater hospital provides standard modules for casualty care, using internal and external informatics in preparation for early patient movement to more definitive care. The hospital will treat all casualties within the theater evacuation policy. When required, casualties will be evacuated, using intratheater or intertheater air evacuation assets to the next level of care.

Hospital ships, Navy fleet hospitals, overseas hospitals, medical treatment facilities of other Services, and host-nation support (HNS) agreements provide theater level HSS. Movement of patients to and between theater facilities is coordinated through the theater patient movement requirements center.

The theater hospital should be employed in proper relation to the point of injury, taking into account the time-distance relationship and the ability of the patient evacuation system. The theater hospital should be placed where it best provides support to the combat forces to ensure that all injuries requiring surgical intervention are attended to within 12 hours.

Level IV (Definitive Health Care) requires the military healthcare system to develop and establish the most efficient means to interface with HSS requirements. This requires evacuation and hospitalization strategies which can maintain the capability to "provide a fit and healthy force; prevent casualties; and provide care and management of casualties" in theaters as well as in CONUS. A reduced outside the continental United States medical treatment capability, a smaller medical footprint, and enhanced evacuation capabilities implies greater CONUS requirements.

Definitive health care relies on all aspects of the military healthcare system for successful implementation. It includes comprehensive HSS throughout the DOD that is comparable to civilian standards. Service members and their beneficiaries receive professional clinical care that targets health, fitness, and optimal physical and emotional well-being. At transition to war, the Services provide the theater commander with contingency health support. This support is integrated among the Services to optimize support throughout the operational spectrum. This support includes casualty prevention, extensive essential medical support forward, and definitive health support in CONUS.

Level V, Continental United States

Limited resources preclude the ability to complete long-term courses of health care in a theater.

Level V care that is convalescent, restorative, and rehabilitative care will normally be provided in CONUS.

Level V care is provided in military hospitals, other federal hospitals, and selected civilian facilities that may be activated under the National Disaster Medical System. The Global Patient Movement Requirements Center coordinates movement of patients to and between CONUS medical treatment facilities.

1006. Triage Categories

A mass casualty situation may develop; that is, the number of patients requiring care exceeds the capabilities of treatment personnel and equipment. Thus, correct triage and evacuation procedures are essential. Patient triage classifications are as follows--

- Immediate treatment group (T1). Those requiring immediate lifesaving surgery. Procedures should not be time-consuming and should concern only those with a high chance of survival, such as respiratory obstruction and accessible hemorrhage.

- Delayed treatment group (T2). Those needing surgery, but whose conditions permit delay without unduly endangering safety. Life-sustaining treatment such as intravenous fluids, antibiotics, splinting, catheterization, and relief of pain may be required in this group. Examples are fractured limbs, spinal injuries, and uncomplicated burns.

- Minimal treatment group (T3). Those with relatively minor injuries who can be helped by untrained personnel, or who can look after themselves, such as minor fractures or lacerations. Buddy care is particularly important in this situation.

- Expectant treatment group (T4). Those with serious or multiple injuries requiring intensive treatment, or with a poor chance of survival. These patients receive appropriate supportive treatment compatible with resources, which will include large doses of analgesics as applicable. Examples are severe head and spinal injuries, widespread burns, or high doses of radiation; this is a temporary category.

Chapter 2
Health Service Support Organizations of Marine Operating Forces

HSS has been organized to meet the need of the Marine Corps with enhanced medical capabilities and evacuation facilities concentrated in the CSSE of the MAGTF. The evolving Marine Corps concepts of the future battlefield reflect a requirement for enhanced force mobility. Among concepts underscoring the requirement for increased mobility is maneuver warfare, advanced offensive weapons targeting systems, vertical assault, and over-the-horizon assault techniques. Forces cannot concentrate to fight and then disperse without the ability to move rapidly. As a result, CSSEs must evolve to meet these changes to be as capable and mobile as the forces they support. The requirement for mobility is reinforced by the fact that friendly forces may be denied a secure rear area in future battlefields. The major threat factor in this consideration lies in offensive weapons targeting systems that are capable of targeting fixed rear area facilities from great distances. The threat of biological, chemical, and radiological warfare, and potential guerrilla activity also act to eliminate the rear area as a safe haven. HSS facilities on the battlefield must be able to establish, displace, and rapidly relocate.

In garrison and during routine deployments Marine Corps units are not staffed with the full wartime complement of HSS personnel. When increased medical and dental manning levels are required units can be brought to wartime manning through the Medical Augmentation Program (MAP). Augmentation is the process by which wartime medical requirements of operating forces and medical support units are filled by active duty personnel to bring units to their full or partial wartime allowance. For detailed information on the MAP process see BUMEDINST 6440.5 series, *Medical Augmentation Program (MAP)*.

2001. General Organization of Marine Air-Ground Task Forces

The MAGTF is the Marine Corps' principal organization for the conduct of all missions across the full range of military operations. MAGTFs are balanced, combined arms forces with organic ground, aviation, and CSSEs. They are flexible, task-organized forces that can respond rapidly to a contingency anywhere in the world and are able to conduct a variety of missions. Although organized and equipped to participate as part of naval expeditionary forces, MAGTFs also have the capability to conduct sustained operations ashore. MAGTFs are organized, trained, and equipped to perform missions ranging from foreign humanitarian assistance to peacekeeping to intense combat and can operate in permissive, uncertain, and hostile environments. They may be shore or sea based in support of joint and multinational major operations and/or campaigns. MAGTFs deploy as amphibious, air contingency, or maritime pre-positioning forces (MPFs), either as part of an amphibious expeditionary force or via strategic lift.

Although MAGTFs are task-organized, each MAGTF, regardless of its size or mission, has the same basic structure. Each MAGTF has four core elements: a command element (CE), a ground combat element (GCE), an aviation combat element (ACE), and a CSSE. See figure 2-1. For a thorough explanation of the MAGTF see MCRP 5-12D, *Organization of Marine Corps Forces*.

The CE is the MAGTF headquarters and is task-organized to provide command and control capabilities (including intelligence and communications) necessary for effective planning, direction, and execution of all operations.

The GCE is task-organized to conduct ground operations in support of the MAGTF mission. It is normally formed around an infantry organization reinforced with requisite artillery, reconnaissance, armor, and engineer forces and can vary in size and composition from a rifle platoon to one or more Marine divisions.

The ACE is task-organized to support the MAGTF mission by performing some or all of the six functions of Marine aviation: antiair warfare, offensive air support, assault support, electronic warfare, air reconnaissance, and control of aircraft and missiles. The ACE is normally built

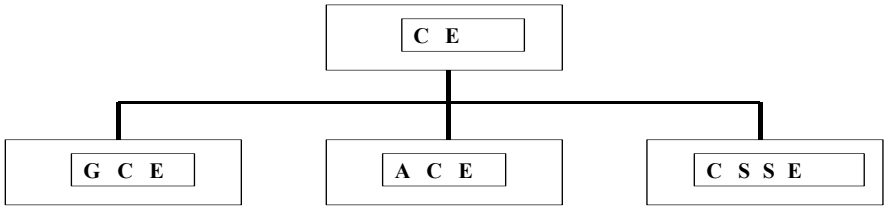

Figure 2-1. MAGTF Organization.

around an aviation organization that is augmented with appropriate air command and control, combat, combat support, and combat service support (CSS) units. The ACE can range in size and composition from an aviation detachment to one or more Marine aircraft wings.

The CSSE is task-organized to support the MAGTF mission by providing general and direct support and sustained CSS above the organic capabilities of supported elements.

2002. Health Service Support Organization Fundamentals

HSS personnel are assigned to all combat and combat support organizations of the Marine operating forces.

CSS organizations have HSS personnel assigned in accordance with their mission and the mission of their parent command.

HSS requirements above the organic capabilities of the CE, GCE and ACE of a MAGTF are provided by the CSSE.

HSS material support for all combat, combat support, and CSS elements above the battalion/squadron level is provided by the FSSG.

2003. The Marine Force Component

The Commander, Marine Corps Forces, Pacific (COMMARFORPAC) and Atlantic (COMMARFORLANT) are the Service component headquarters representing US Marine Corps matters directly to the combatant commander. The role of a Marine Service component under Commander, United States Pacific/Atlantic Fleet was retained only for specific naval service tasks. Headquarters, Marine Corps Forces, Pacific/Atlantic deploy as Level II component headquarters.

The Marine Corps Forces (MARFOR) Surgeon is the principal advisor to Commander, Marine Corps Forces (COMMARFOR) for all matters pertaining to HSS. The MARFOR Surgeon, in coordination with the plans and logistics staff within the G-4 (Marine Corps Forces, Pacific) or within Force Surgeon directorate/division (Marine Corps Forces, Atlantic), coordinates all HSS requirements and assets within the MARFOR on behalf of the COMMARFOR. Within the joint arena, HSS is coordinated by the respective combatant commander's component HSS Operations Center in theater, which may be US only or "combined" as in the case of Combined Marine Forces Commander (CMFC-Wartime) in the Korean theater of operations. The MARFOR Surgeon, via direct coordination with and support from the plans and logistics staff, is responsible for the following: ensures integration of levels of care; coordinate Joint, Combined, or Theater-specific HSS operations in theater; conducts liaison with combatant commander/component surgeons and dental officers for theater health service integration (regionalization, standardization, and interoperability), theater engagement; coordinates staff liaison for theater medical threat assessment and promulgates FHP guidance to MEFs/major subordinate commands; conducts validation of HSS requirements (i.e. medical logistics sustainability analyses, casualty estimates, Class VIII-equipment/supplies/blood, PM, medical intelligence, Medical Augmentation Program); monitors and advocates major subordinate commands' requirements to readily support integration into theater combat health support system (i.e. patient evacuation, medical regulating, and theater blood program); monitors and coordinates time-phased force and deployment data flow of MARFOR medical personnel (to include Navy MAP personnel) and medical equipment/supplies; effects liaison with theater integrated medical logistics managers and monitors readiness of MEF/major subordinate commands medical units via quarterly MEF/major subordinate commands readiness status reports (e.g. Status of Resources and Training System); monitors/coordinates blood supply and sustainment requirements with Theater Blood Program Officer.

All MEF/MAGTF Surgeons report all HSS matters and issues to the MARFOR Surgeon. The MARFOR Surgeon can expect to receive broad guidance and a general concept of the established HSS system from The Medical Officer of the Marine Corps (TMO) for exercising service componency and/or combatant commander's surgeon, for exercising functional componency in area of responsibility (AOR).

2004. The Marine Expeditionary Force

Medical Section of the Marine Expeditionary Force Special Staff

The medical section of the MEF staff consists of the MEF surgeon, medical plans officer, health services administrative officer, PREVMEDO, and dental officer (assigned as an additional duty) from dental battalion and enlisted personnel.

Marine Expeditionary Force Surgeon

The MEF surgeon functions as a special staff officer. The MEF surgeon advises the MEF commander on matters relating to the health of the command. He is responsible for staff supervision of medical training for medical and nonmedical personnel. The surgeon and his/her staff determine internal HSS requirements, recommend the allocation of organic medical resources, and establish priorities for medical support. The MEF surgeon deploys as a member of the MEF commander's special staff to advise the commander on all professional, administrative, personnel, and operational HSS matters. The MEF dental officer deploys with the FSSG and works with the MEF surgeon in the planning and delivery of dental care to the MEF.

Specific staff responsibilities include--

- Exercising staff review of medical activities throughout the MEF, including routine health care, first aid, environmental sanitation, food service sanitation, and other PM activities affecting the health of MEF, joint task force or combined joint task force.

- Ensuring medical Class VIIIA (Consumable and Equipment) & Class VIIIB (Blood and Blood Products) are properly stored, issued, maintained, and available to organic medical facilities of the force.

- Planning and supervising healthcare and patient movement.

- Advising force commander and staff on potential effects of NBC weapons on personnel, equipment, water, and food.

- Recommending treatment procedures and ensuring that facilities for treatment of NBC casualties are available.

- Evaluating food and water after exposure to chemical/biological agents or other contaminants, to determine suitability for consumption.

- Examining and reporting on captured Class VIII.

- Providing technical supervision of all health care related training to both medical and non-medical personnel within the MEF.

- Coordinating disease surveillance for the force with/through the force PREVMEDO.

- Providing HSS planning support.

- Providing planning guidance and input regarding HSS to the MEF OPLAN.

- When not geographically collocated, the MEF dental officer will assign a senior dental officer to the MEF staff as a temporary assignment to coordinate dental requirements.

Marine Expeditionary Force Medical Plans Officer and Health Services Administrative Officer

The MEF medical plans officer and Navy administrative officer work directly under the G-4 staff. These officers assist the MEF surgeon with his duties, but especially with planning, logistics, administrative coordination, record maintenance, and personnel administration. Also, the health services administrative officer serves as the Navy Occupational Field Sponsor for all Navy personnel issues for the commanding general (CG) via the Assistant Chief of Staff for Manpower/Personnel (AC/S), G-1.

Specific staff responsibilities include--

- Conducting current and future health services planning and coordinating the MEF HSS effort in future and current operations.

- Implementing, monitoring, and evaluating medical intelligence in support of operational and contingencies plans.

- Coordinating medical support including Class VIII and personnel.

Marine Expeditionary Force Preventive Medicine Officer

The MEF PREVMEDO is a physician in either general preventive medicine/public health or occupational medicine. The PREVMEDO develops MEF level PM policies for OPLANS, training, and in-garrison activities and coordinates the PM personnel in these activities. A major focus of the PM activity is to conduct routine and operational disease surveillance to monitor the health and deployability of the force. Other duties include conducting disease outbreak investigations and using biostatistical analysis of health trends in the MEF when required.

2005. The Marine Division

Medical Section of the Division Special Staff

The medical section of the division staff consists of the division surgeon; medical planner, EH officer, division psychiatrist and enlisted personnel assistants.

Division Surgeon

The division surgeon functions as a special staff officer under the cognizance of the Assistant Chief of Staff for Logistics (AC/S G-4). The division surgeon advises the division commander on matters relating to the health of the command. He provides professional advice to the

commander on HSS matters. He is responsible for staff supervision of medical training for medical and nonmedical personnel. The surgeon and the AC/S G-4 determine internal HSS requirements; recommend the allocation of organic medical resources, and priorities for medical support.

Specific staff responsibilities include--

- Exercising staff responsibilities of medical activities, including routine health care, first aid, and PM activities affecting the health of the command.

- Monitoring proper handling of supplies and equipment organic to the division.

- Supervising medical treatment and evacuation.

- Recommending treatment procedures for the treatment of NBC casualties.

- Examining and reporting on captured medical equipment and supplies.

- Providing technical supervision of all healthcare related training to both medical and nonmedical personnel within the division.

Division Medical Planner

The division medical planner advises the AC/S G-4 on medical planning issues. Supports the division surgeon with medical readiness issues and maintains and develops medical contingency plans in support of the area of operations.

Specific staff responsibilities include--

-Coordinating with the general staff in developing medical contingencies plans in support of area operations.

-Collecting and maintaining medical information reflecting requirements and limitations due to division or joint arenas.

-Organizing a medical support consisting of Class VIII supplies and personnel for area operations.

-Assisting the division surgeon in the performance of his/her duties.

Division Environmental Health Officer

Assists the division surgeon in the performance of his/her duties. Responsibilities include conducting disease and environmental surveillance, developing health threat assessments and countermeasures, and risk communication to ensure commanders have the most complete situational awareness of potential and actual health threats, risks and hazards.

Specific staff responsibilities include--

-Anticipating and monitoring EH threats. Evaluating and planning appropriate responses to environmental and occupational health stressors. Monitoring immunization status, chemoprophylaxis and compliance with environmental preventive measures. Preparing and providing briefs on real and potential EH threats to mission accomplishment, health and safety of personnel, and required preventive measures.

-Participating in planning conferences to ensure EH threats are adequately addressed in the OPLAN medical annex.

-Ensuring necessary EH controls are planned and carried out for food procurement, potable water, waste disposal, general field sanitation, personal hygiene, vector control, agricultural washdowns and other necessary public health measures.

-Conducting pre-site assessments (mission dependent factoring in the following variables: troop strength, duration, activities; provide alternatives to non-ideal sites).

-Evaluating health risks at potential sites and make recommendations to prevent or lower risks.

-Providing continuous surveillance of the force and DNBI threats (through active data collecting, analyzing and reporting to higher authorities) and recommending countermeasures, including vaccines, chemoprophylaxis and environmental preventive measures. Conducting disease outbreak investigations.

2006. The Infantry Regiment

The regimental medical section is composed of one medical officer and seven hospital corpsmen. This section is organic to headquarters company of the regiment and provides HSS for regimental headquarters personnel. When a BAS is located near the regimental headquarters, it may not be necessary to establish a regimental aid station. In such an event, regimental HSS personnel should augment the BAS, and regimental headquarters personnel should use the combined facility.

Regimental Surgeon

The regimental surgeon is a special staff officer who exercises staff supervision over HSS functions in the regiment and advises the regimental commander on health services of the command.

HSS Sections of Separate Combat Support Battalions

Composition of HSS sections in separate battalions varies in proportion to total battalion strength and expected casualty rates. When detachments or elements of separate battalions operate in areas remote from the parent unit, HSS personnel are assigned, as required, from the parent

battalion.

2007. The Infantry Battalion

Infantry battalions with a weapons company and three rifle companies assigned have organic HSS assets with a table of organization (T/O) of two medical officers and 65 hospital corpsmen. These assets constitute the medical platoon of the battalion's H&S company. The battalion surgeon, with concurrence of the battalion commander, assigns medical personnel to line and weapons companies, as needed.

Battalion Surgeon

This special staff officer advises the battalion commander on the health of the battalion and performs other duties as the battalion commander may direct. Other duties include supervising patient treatment, planning, organizing, and teaching the battalion HSS staff. The surgeon directs activities of the battalion medical section and is responsible for--

- Organizing battalion medical section.

- Assigning medical personnel to duties.

- Preparing the health services appendix to the battalion's OPLAN.

- Supervising and assisting in collection, care, treatment, and evacuation of sick and wounded personnel.

- Planning the management of medical supplies and equipment, and testing the resupply system to ensure sufficient, but not excessive, supply levels for combat operations.

- Recommending sites for battalion medical installations.

- Maintaining medical records and preparing reports.

- Ensuring medical and sanitation inspections are conducted in accordance with Naval Medical (NAVMED) Publication 5010, *Manual of Naval Preventive Medicine*.

- Training medical department personnel in subjects relating to HSS.

- Supervising the instruction for nonmedical personnel in personal hygiene, preventive medicine, field sanitation, extraction of casualties from vehicles, litter bearing, and first aid/buddy aid.

- Developing plans and procedures for handling contaminated casualties.

- Developing medical standing operating procedures (SOPs) consistent with unit and higher guidance.

Assistant Battalion Surgeon

The assistant battalion surgeon directs the operation of the BAS and performs other duties as may be assigned by the battalion surgeon.

2008. Medical Platoons

In combat, company and platoon corpsmen perform procedures, as necessary, to prevent illness and injury, to support life, prevent further injury, and stabilize casualties for evacuation to facilities that can continue their care. Such procedures include establishing an airway, restoring respiration, controlling hemorrhage, treating for shock, applying dressings, relieving pain, and initiating intravenous fluid administration.

Hospital corpsmen assigned to company and platoon levels perform best when afforded the opportunity to remain with the same unit for the duration of their tour with Marine operating forces. This allows them to become acquainted with members of their unit, to gain their confidence, and to become an integral part of the team. Hospital corpsmen assigned to companies of the infantry battalion are normally distributed as follows:

- A team of 10 hospital corpsmen is normally assigned to a rifle company or a weapons company. The senior hospital corpsman, designated the company corpsman, is assigned to company headquarters. He trains and supervises platoon corpsmen and litter bearers in the performance of their duties. To plan adequate medical support at his level of responsibility, he must be thoroughly briefed on the OPLAN.

- The remaining hospital corpsmen assigned to a company are designated platoon corpsmen.

Litter Bearers

While not part of the battalion medical section, litter bearers operate under supervision of the battalion surgeon. Litter bearers are Marines designated by the commander to perform casualty collection and evacuation within the unit. Litter bearers should be designated well in advance of an operation, so they can be trained in casualty handling procedures. When demand for litter bearers is so great that a battalion cannot provide them without affecting its combat efficiency, the battalion commander should request additional personnel from the regimental commander.

The number of litter bearers required will vary with the situation, but 24 is normally considered the minimum for an infantry battalion. Four bearers may be required per litter if distances are great or the terrain difficult.

Indigenous civilians may be employed as litter bearers, if available and properly supervised.

2009. Battalion Aid Station

Mission

The mission of the BAS is to provide direct Level I medical support to company and platoon corpsmen, and to provide an advanced level of care in the overall effort to sustain the combat force. See figure 2-2. The BAS is designed to provide HSS under combat conditions. It will operate as far forward as the tactical situation permits.

Tasks

Return patients to duty when possible.

Conduct triage.

Treat casualties to minimize mortality, prevent further injury, and stabilize for further evacuation.

Record all casualties received, treated, and prepare casualty reports.

Provide temporary shelter in conjunction with emergency treatment.

Transfer evacuees from aid station to ambulance, helicopter, or other evacuation transportation.

Initiate medical treatment of combat stress casualties.

Provide routine sick call for battalion personnel.

Maintain health records of battalion personnel.

Provide personnel replacement and medical resupply (replenishment) for company medical platoons.

Conduct routine disease and injury surveillance as an outcome measure of command preventive programs.

Implement Preventive Medicine Petty Officer Program to ensure PM program elements are accomplished.

Concept of Organization

The BAS is manned by hospital corpsmen of the battalion medical platoon under the direction of the assistant battalion surgeon. The aid station element is capable of establishing and operating two aid stations when necessary (the second headed by the battalion surgeon).

Concept of Employment

BASs are the most forward deployed and the most mobile of medical treatment facilities

supporting MAGTFs. BASs render support to GCEs from positions as close to forces in contact as the tactical situation permits. Marine Corps concepts of expeditionary maneuver warfare require a high degree of mobility in BASs supporting combat operations.

UNITS IN SERVICE:	I MEF	45	II MEF	45
	III MEF	30	MARFORRES	30

GENERAL CHARACTERISTICS:
Organization: Aid stations are distributed as 2 at the MEF, 23 at the division, 1 at the FSSG, and 1 per Marine wing support squadron. Normally divided into 2 sections, with 1 officer and 10 enlisted, plus 4 medical teams of 11 enlisted each.

Command and Control: The medical officer at the BAS provides command and control.

MEDICAL CHARACTERISTICS:
Provides Level I, primary resuscitative care for approximately 50 casualties.

Erect Time:	1 hour
Maximum Patient Holding Time:	6 hours

Figure 2-2. Basic Aid Station Characteristics.

2010. The Marine Aircraft Wing

The Marine aircraft wing (MAW) is the highest level tactical aviation command in the Marine operating forces. A MAW is comparable to a Marine division in command responsibility, and is normally commanded by a major general. Each wing is a balanced combat force, primarily designed to support one Marine division in an amphibious operation or a land operation. Marine aviation groups are organized into three types: Marine air control group, (MACG), Marine wing support group (MWSG), and the Marine aircraft group (MAG). Each group is comparable to an infantry regiment in terms of command responsibility, and is normally commanded by a colonel. The larger organic medical support elements of the MAW are located in the Marine wing support squadron of the MWSG. See MCRP 5-12D, *Organization of Marine Corps Forces* for more information.

Medical Section of the Wing Staff

The medical section of the wing staff consists of the wing surgeon, medical administrative officer, EH officer, and enlisted personnel assistants.

Wing Surgeon

The wing surgeon performs general duties as a special staff officer and a department head, under cognizance of the chief of staff. The wing surgeon advises the aircraft wing commander on matters relating to the health of the command. He develops the command's

medical policies, and provides professional advice to the commander and his staff. He is responsible for staff supervision of medical subjects training for the command's medical and non-medical personnel. The wing surgeon determines internal medical support requirements, allocates organic medical resources, and establishes priorities for medical support.

Specific staff responsibilities include-

- Staff supervision of medical activities throughout the command, including routine sick call, medical treatment, flight physical examinations, and other activities affecting the health of the command.

- Ensuring that medical supplies and equipment are properly stored, issued, maintained, and available to all organic health service support elements (HSSEs) of the wing.

- Ensuring that adequate first aid supplies are available.

- Planning and supervising the system of medical treatment and casualty evacuation.

- Advising the wing commander and staff on potential effects of NBC weapons on personnel, equipment, water, and food.

- Prescribing treatment procedures and ensuring that facilities for treatment of contaminated casualties are available.

- Evaluating food and water after exposure to chemical/biological agents or other contaminants, to determine suitability for consumption.

- Coordinate disease and injury surveillance with all wing components providing medical care through the EH officer.

Wing Medical Administrative Officer

Assists the wing surgeon in the performance of his duties. Primarily concerned with medical planning, logistics, coordination of administrative functions, maintenance of records, and personnel administration.

Marine Aircraft Groups

The group medical section is composed of one medical officer and two hospital corpsmen. This section is organic to the MAG headquarters and provides limited HSS to its personnel. Since a MAG headquarters is generally collocated with a Marine wing support squadron (MWSS), MAG the MWSS will provide the majority of the health services. MAG HSS personnel should augment the MWSS aid station.

Marine Aircraft Group Surgeon

The MAG Surgeon is a special staff officer who exercises staff supervision over HSS and aeromedical functions in the MAG, including planning for deployments, coordinating with the MAG's supporting MWSS, preparing medical readiness, and advising the MAG commander on health services of the command.

Marine Wing Support Group

The MWSG medical section is composed of one medical officer and two hospital corpsmen. This section is organic to the MWSG headquarters and provides limited HSS to its personnel. MWSG personnel should augment one of their subordinate MWSS expeditionary aid stations.

Marine Wing Support Group Surgeon

The MWSG surgeon is a special staff officer who exercises staff supervision over HSS in the MWSG, and has similar responsibilities regarding planning for expeditionary HSS. The MWSG surgeon is directly concerned with logistic support of deploying aid stations, laboratory, pharmacy, and x-ray authorized medical allowance lists (AMALS).

Marine Wing Support Squadron

Each MAW has four MWSSs, as a part of the MWSG. Each MWSS is designed to provide aviation ground support functions for one fixed-wing or rotary-wing expeditionary airfield, supporting five to eight flying squadrons (80 to 95 aircraft). Organic to each MWSS are medical officers, hospital corpsmen, and class VIII equipment and supplies to establish a squadron aid station capable of providing medical care to one Marine expeditionary airfield, with attached flying squadrons. See figure 2-3. A dental detachment from dental battalion may be provided in support of each MWSS. MWSS aid stations form the primary medical facilities of the MAW. In addition to routine sick call, each MWSS aid station provides aviation medicine, PM (including routine injury and disease surveillance), laboratory, x-ray, and pharmacy services.

Squadron Medical Sections

Each flying squadron has a medical section consisting of a flight surgeon and three or four hospital corpsmen, depending on squadron type. They are capable of conducting routine sick call as well as aviation medical functions. However, by virtue of the centralization inherent in airfield organization and support, squadron medical personnel usually find it more convenient and efficient to work in conjunction with the MWSS aid station.

Marine Air Control Group and Subordinate Units

The medical section of the MACG headquarters is composed of two medical officers and one hospital corpsman. The MACG surgeon advises the MACG commander on issues concerning the health of the group and its subordinate units and the supervision of the other 11 hospital corpsmen within the group. The MACG and its subordinate units are dedicated to the control of aircraft and missiles in support of the MAGTF. These units and assigned medical personnel include a Marine tactical air command squadron, a Marine air control squadron, a Marine air

support squadron, and a low altitude air defense battalion. These units depend on the MWSS aid station for all but the most routine healthcare support.

Medical Care Above Organic Capability

Either all or part of the ACE may be remotely located from the MAGTF CSSE. Medical care beyond organic capability of the CE must be provided from medical battalion assets or from other Service (joint or combined) medical facilities. Such contingencies must be adequately addressed in the MAGTF OPLAN or OPORD.

MEDICAL DIVISION, MARINE WING SUPPORT SQUADRON

MISSION: Provides Level I medical care in support of Marine aircraft wings.

UNITS IN SERVICE:

1st MAW	2	2d MAW	4
3d MAW	4	4th MAW	4

GENERAL CHARACTERISTICS

Organization: Marine wing support squadrons and their division distributed as follows: One per Marine aircraft group.

Command and Control: The medical officer at the medical division reports directly to the Commanding Officer of the Marine wing support squadron.

Size: (Mobilization): 4- Navy Officers, 0 - Marine Corps Officers,
33- Navy Enlisted (RW) 0 - Marine Corps Enlisted
32- Navy Enlisted (FW)

GENERAL MEDICAL CHARACTERISTICS

Provides Level I, Primary Resuscitative care for approximately 50 casualties.

Erect Time	1 hr
Maximum Patient Holding Time	6 hrs

Legend: fixed-wing (FW) rotary-wing (RW)

Figure 2-3. Marine Wing Support Squadron Medical Division Characteristics.

2011 The Force Service Support Group

HSS organic to the FSSG may be divided into elements designed to provide internal support to the FSSG and elements designed to provide support to MAGTF elements external to the FSSG. See figure 2-4.

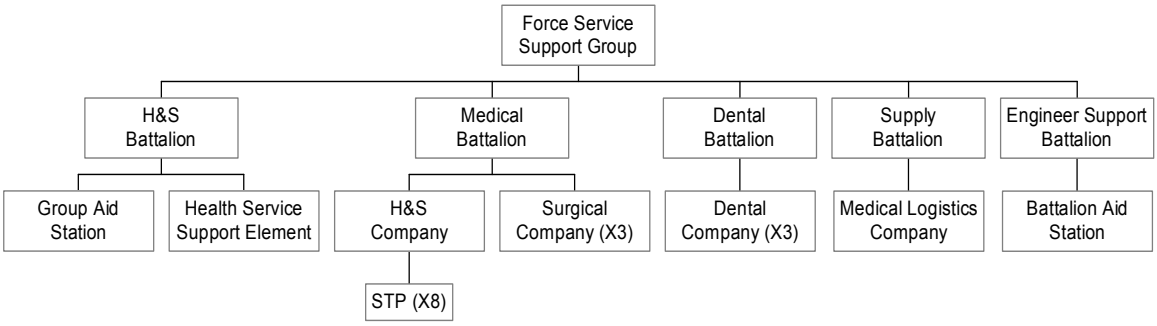

Figure 2-4. HSS in the FSSG.

Internal Support

Group Surgeon. The group surgeon is a special staff officer, under cognizance of the AC/S G-4. They advise the FSSG commander on matters relating to the health of the command, and supervise the operation of the group aid station (GAS). In respect to organic medical elements designed to support the FSSG, the group surgeon's duties and responsibilities parallel those outlined for the division surgeon in paragraph 2005.

Group Aid Station. The GAS provides organic HSS to the FSSG headquarters. Under the integrated logistic capability the operation of the GAS is under the cognizance of the commanding officer of the medical battalion.

External Support

Health Service Support Officer. The HSS officer (HSSO) is a special staff officer under the cognizance of the assistant chief of staff for operations (AC/S G-3) of the FSSG. He develops a capability response in manpower, equipment, and supplies to address the stated health service requirements of the MEF and those requirements of its major subordinate commands that exceed their organic capabilities. He reviews HSS requirements for OPLANs, supporting logistics, and CSS annexes. With other staff officers, the HSSO evaluates needs and develops FSSG HSS responses that meet support requirements beyond the organic capability of the GCE and ACE. Should the HSSO, in assessing HSS tasking, recognize needs beyond FSSG capabilities, he will advise the AC/S G-3.

Specific tasks of the HSSO include--

Determining HSS personnel and equipment required to support specific OPLANs.

Collecting operationally significant medical information in the field and reporting this information to the Armed Forces Medical Intelligence Center (AFMIC) through the G-2/S-2 section.

Maintaining medical intelligence files and reports.

Serving as officer in charge of medical support section, CSS operations center in MEF or FSSG exercises/operations.

Coordinating all medical/dental inter-Service support agreements for the FSSG.

Health Service Support Element. The HSSE plays a vital role in planning operational medical support. The HSSE is within the AC/S G-3 operations section and is supervised by the HSSO. The mission of the HSSE is to coordinate requirements for HSS to MAGTFs and units external to the FSSG.

Environmental Health Officer

Reports to the commanding officer of the medical battalion. The EH officer's responsibilities include conducting disease and environmental surveillance, developing health threat assessments and countermeasures, and risk communication to ensure commanders have the most complete situational awareness of potential and actual health threats, risks and hazards. Specific staff responsibilities specifically include--

Anticipating and monitoring EH threats. Evaluating and planning appropriate responses to environmental and occupational health stressors. Monitoring immunization status, chemoprophylaxis and compliance with environmental preventive measures to ensure readiness of the operational forces

Preparing and providing briefs to CG and staff on real and potential EH threats to mission accomplishment, health and safety of personnel, and required preventive measures utilizing global medical intelligence products.

Participating in planning conferences and processes for all major regional contingency and humanitarian operations ensuring EH threats are adequately addressed in the OPLAN medical annex. Reviewing and addressing agricultural washdown program issues.

Consulting and advising G-1 through G-4 to ensure necessary EH controls are planned and carried out for food procurement, potable water, waste disposal, general field sanitation, personal hygiene, vector control, agricultural washdowns and other necessary public health measures to contribute to successful deployment or operation.

Conducting pre-site assessments (mission dependent factoring in the following variables: troop strength, duration, activities; provide alternatives to non-ideal sites).

Evaluating health risks at potential sites, including any needed environmental sampling and make recommendations to prevent or lower the risks.

Evaluating food and water after exposure to chemical/biological agents or other contaminants, to determine suitability for consumption.

Providing continuous surveillance of the force and DNBI threats (through active data collecting, analyzing and reporting to higher authorities) and recommending countermeasures, including vaccines, chemoprophylaxis and environmental preventive measures. Conduct disease outbreak investigations.

2012. Medical Battalion

Within the MEF, the medical battalion is the only source of Level II medical support available. See figure 2-5. Their primary purpose is to provide initial resuscitative and surgical treatment that, if not performed, could lead to death or loss of limb. Emergency care that includes initial resuscitation is continued and if necessary, additional emergency measures are instituted which do not go beyond immediate necessities. These units have a short term holding capability. In garrison and during routine deployments, the medical battalions use organic staff. When increased medical manning levels are required for contingencies or training exercises units can be brought to wartime manning through MAP.

UNITS IN SERVICE:

MARINE CORPS FORCES, PACIFIC
- 1st Medical Battalion
- 3rd Medical Battalion

MARINE CORPS FORCES, ATLANTIC
- 2nd Medical Battalion

MARINE CORPS FORCES RESERVE
- 4th Medical Battalion

GENERAL CHARACTERISTICS

Organization: Three (3) Surgical Companies and one (1) Headquarters and Service Company per Medical Battalion

Command and Control: Medical Battalion Commanding Officer reports to the Commanding General of the Force Service Support Group

Size: (At mobilization): 208 - Navy Officers, 6 - Marine Corps Officers
552 - Navy Enlisted, 199 - Marine Corps Enlisted

GENERAL MEDICAL CHARACTERISTICS

Operating Room (sections)	9 (1st and 2nd Medical Battalion)
	6 (3rd and 4th Medical Battalion)
Laboratories	6 (2 sections per surgical company)
X-ray	6 (2 sections per surgical company)
Pharmacy	6 (2 sections per surgical company)
Flow-through Cots	260

FRSS	4 (1st and 2nd Medical Battalion) 2 (3rd and 4th Medical Battalion)
Shock Trauma Platoons	8 (1st and 2nd Medical Battalion) 6 (3rd and 4th Medical Battalion)

Maximum Patient Holding Time--72 hrs (surgical company)

Figure 2-5. Medical Battalion Characteristics.

Mission

The medical battalion provides direct and general HSS to the MEF in order to sustain the combat effort.

Tasks

Provide Level II HSS, to include initial resuscitative surgery and temporary holding of casualties, to the MEF.

Provide patient evacuation services for the MEF and smaller MAGTFs.

Evaluate, recommend, and apply PM measures for the prevention and control of disease and to eliminate or reduce other potential EH hazard risks.

Assist in the collection of operationally significant medical information in the field and reporting this information to AFMIC through the HSSO.

Assist in the analysis and dissemination of medical intelligence.

Provide HSS at casualty decontamination and treatment stations.

Assist in identification of human remains and preparation of death certificates, as required, in support of graves registration programs.

Provide HSS for management of mass casualties and combat stress casualties.

Concept of Organization

The battalion is organized to plan and supervise the HSS functions of the MEF, as coordinated with the HSS staff. 1st and 2nd Medical Battalions have three surgical companies and eight STPs while 3rd and 4th Medical Battalions have two surgical companies and six STPs. A dental detachment augments each surgical company to provide treatment and to augment medical support as needed.

Forward Resuscitative Surgery System (FRSS) is one of the smallest units for provision surgical care to combat casualties. The FRSS is capable of providing a spectrum of trauma care ranging from triage/advance trauma life support/stabilization through salvage surgical procedures. The team is composed of eight personnel. FRSS staffing is constrained to the existing medical battalion T/O. In other words, the FRSS is task-organized using manpower from the surgical companies. See figure 2-6 for task organization. The FRSS can care for a total of five patients at any one time (two pre-operative, one intra-operative, and two post-operative). Total equipment is approximately 6,300 pounds, excluding personal gear and environmental control units and a total volume of 640 cubic feet. The fielding plan for FRSS is as follows—

- I MEF (4)
- II MEF (4)
- III MEF (2)
- MARFORRES (2)
- MPF (3)

Note: One FRSS per surgical company, an additional one each for I & II MEF to support a Marine expeditionary brigade (MEB), and one each per MPF.

The H&S company contains STPs that have 10 patient holding beds each. Each surgical company contains 60 beds and 3 operating rooms. The surgical companies are classified as Level II medical treatment facilities. They are distinguished from level III facilities by their lack of definitive treatment capabilities.

The battalion is structured to facilitate task organization for operations conducted in support of the MEF, MEB, or any combination of smaller MAGTFs operating in widely separated geographical areas.

Billet	**NOBC**	**NEC**
General Surgeon	0214	
General Surgeon	0214	
Anesthesiologist	0118	
Critical Care Nurse	0904	
Independent Duty Corpsman		8425
Operating Room Technician		8483
Operating Room Technician		8483
Field Medical Technician		8404

Figure 2-6. FRSS Task Organization.

Command and Control. The battalion commander exercises command and control of the battalion through the battalion staff and the company commanders. He directs and controls command support functions relating to operations, administration, and logistics/CSS for the battalion.

Firepower. Organic firepower capability is limited to individual and crew-served weapons for personal security and for defense of medical installations in accordance with applicable international law.

Mobility. Organizational vehicles of the battalion, transportable by fixed-wing aircraft and by heavy-lift rotary wing aircraft, provide limited mobility. Transportation support is required from the transportation support battalion to effect displacement.

Communications. The battalion is capable of organic single-channel communications support. Communications support, as required, is provided by the communications company of the H&S battalion.

Intelligence. Intelligence support, as required, is provided by the H&S battalion.

Security. The battalion has a limited organic security capability. Security support, as required, is provided by the H&S battalion.

Concept of Employment

The battalion units are task-organized to support the mobility and flexibility requirements of the MAGTFs. The medical battalion constitutes appropriately sized and configured medical treatment facilities in support of specific MAGTFs.

Shock Trauma Platoons, H&S Company. STPs are the most mobile of medical battalion units, although they are a Level I facility they are an extension of a surgical company. They are designed to provide direct support to medical elements organic to the GCE and ACE of a MAGTF. Where required by the OPLAN, STPs lend themselves to being task-organized for support of Marine expeditionary unit (MEU) and MEB-size MAGTFs. They may be combined or collocated to increase capability or relieve a BAS of its patients, allowing the BAS to follow in trace of their combat elements or as the advance element for the location of a surgical company. Another way an STP may be employed is as part of a mobile CSS detachment. In Operation Iraqi Freedom (OIF), STPs were combined with FRSSs to provide triage and pre/post operative care. The STPs also provided communications and patient movement support to the FRSSs.

Forward Resuscitative Surgery System. The FRSS will be employed when the tactical situation precludes use of a surgical company ashore and when rapid casualty transport to CRTS, or to land-based surgical facilities, is unavailable. It will be used in support of one or more maneuver elements, augmenting an STP or BAS. The FRSS does not have the capability to hold patients more than four hours and must be collocated with an STP, BAS, or ward section from the surgical company for initial triage, communications, security, and patient movement. It can provide for a minimum of 18 casualties over a period of 48 hours before requiring resupply and relief of personnel. The FRSS is not designated to bring combat casualty care *de novo* to an area that has no other medical units, but rather to provide a significant increase in the capacity and capability of any medical unit that is present. It can be transported using two high mobility multipurpose wheeled vehicles (HMMWVs) (M-997 and M-998) towing M-101 trailers, via

rotary or fixed wing tactical aircraft, or by surface vessels. During OIF, FRSS teams were designated as either as "Jump" or "Forward" HSS capabilities. Forward FRSS teams with STPs were attached to CSSEs and provided Level II HSS as far forward as the tactical situation permitted. Forward FRSS teams with STPs moved with the tactical units they supported and were never subsumed in their respective company. Jump FRSSs with an STP and a ward section served as the foreword echelon of a surgical company and provided Level II HSS until the remainder of the surgical company displaced to the forward support area. Once the surgical company was fully established at the support area, the Jump FRSS along with supporting HSS capabilities could leapfrog forward to the next support area, if necessary.

Surgical Company. By virtue of its larger size, a fully deployed surgical company is best suited for a general support role from a location less likely to require displacement and relocation. However, the surgical company's structure and organization lends it to dividing into independent elements for deployment and therefore can also be utilized to provide direct support to operating forces through use of the STPs. For example, the triage/evacuation platoon of a company may be deployed with the assault echelon (AE) of a combat force, while the holding and surgical platoons are placed in the assault follow-on echelon (AFOE). Upon entry, the remaining units of the surgical company may join the triage/evacuation platoon, or the company may establish in a different location.

Levels of Patient Care. STPs provide Level I and FRSS and surgical companies provide Level II patient care. STPs provide the emergency stabilization care required for evacuation. Surgical company capabilities are built around the surgeons contained in their tables of organization. If tactical situations dictate, an STP may be augmented with an FRSS or a surgical section from the surgical company to provide a forward surgical capability.

Logistic Capabilities

Supply. The battalion is capable of organic supply support. The medical logistics company of the supply battalion provides class VIII supply support. Medical Logistics Company maintains the capability sets for the battalion while in garrison and provides supply assistance as required. It is the medical battalion commander's responsibility to validate that authorized allowances are in deployable status at all times. However, it is supply battalion's obligation to ensure authorized allowances are properly ordered and maintained.

Maintenance. The battalion is capable of organizational (1st echelon) maintenance on organic equipment and organizational (2d echelon) maintenance on organic equipment, except for medical equipment. The medical logistics company of the supply battalion provides organizational (2d echelon) and intermediate (3d and 4th echelon) maintenance support for medical equipment and maintains the AMALs. Intermediate (3d and 4th echelon) maintenance support for nonmedical equipment is provided by the maintenance battalion.

Transportation. Capable of organic transportation for command and administrative purposes. Also capable of organic transportation for evacuation of casualties by ground ambulance from forward medical elements and transfer of patients to medical treatment facilities in other CSS areas (CSSAs).

General Engineering. Engineering support, as required, is provided by the engineer support battalion.

Health Services. Capable of organic medical support. Routine sick call is provided by the GAS, H&S battalion within the FSSG. Dental support is provided by the dental battalion.

Services. Services support, as required, is provided by the service company of the H&S battalion.

Messing. The battalion is capable of limited food service support. When collocated with the dental battalion, the medical battalion provides limited food service support for both battalions. Messing capabilities can be augmented by the H&S battalion within the FSSG.

Note: To clarify this capability statement, it is important to understand that medical battalions have no equipment or consumable supplies designed to provide routine sick call or day-to-day health care to battalion personnel. However, it is reasonable to expect that medical battalion personnel assigned to, or located with, a deployed STP or surgical company will receive medical care from that facility.

2013. Headquarters and Service Company

The company consists of the battalion headquarters S-1 personnel/administration, S-2/S-3 intelligence and operations, S-4 logistics, S-6 communications sections; a chaplain section; a PM section, and STPs.

Mission

To provide command, control and command support functions for medical battalion. Provide collecting, clearing, and evacuation of casualties from supported MEF elements through the STPs. Provide comprehensive PM services to all supported units.

Tasks

Provide administrative, organic supply, light motor transportation, and maintenance support to the battalion.

Provide limited medical evacuation for the battalion.

Provide medical data coordination for the battalion.

Provide medical department personnel, as required, to the headquarters elements of CSS detachments.

Concept of Organization

Organized to plan, coordinate, and supervise the command support functions for the battalion. It is structured to facilitate task organization for operations conducted by the battalion in support of MAGTF operations.

Command and Control. The company commander directs and controls command support functions relating to operations, administration, and logistics/CSS for the company.

Firepower. Organic firepower capability is limited to individual and crew-served weapons for personal security and defense of the medical installations in accordance with applicable international law. Marine Corps personnel assigned to this company are classified as noncombatants under the provisions of international law.

Mobility. Organizational vehicles of the company are helicopter transportable and provide limited mobility. Transportation support is required from the transportation support battalion to effect displacement.

Communications. The company is capable of internal, single-channel communications. Communications support, as required, is provided by the communications company of the H&S battalion.

Concept of Employment

May be employed in a single CSSA to provide command and control facilities and administrative and service support for the battalion. It has limited capability to establish headquarters elements for operation in two separate CSSAs. Service platoon and communications section detachments may be assigned to augment surgical companies.

Logistic Capabilities

Supply. The company is capable of organic supply support. The medical logistics company of the supply battalion provides class VIII supply support as required.

Maintenance. The company is capable of organizational (1st and 2d echelon) maintenance on organic equipment. Intermediate (3d and 4th echelon) maintenance support for nonmedical equipment, as required, is provided by the maintenance battalion and for medical equipment, is provided by the medical logistics company of the supply battalion.

Transportation. The company is capable of organic transportation support for command and administrative purposes.

General Engineering. Engineering support, as required, is provided by the engineer support battalion

Health Services. Medical support is provided by H&S battalion, and dental support is provided by the dental battalion.

Services. Services support, as required, is provided by the service company of the H&S battalion.

Messing. The company is capable of limited organic food service support and, as required, providing limited food service support to the dental battalion. Messing capability can be augmented by the H&S battalion, or by the supported CSSE.

2014. Shock Trauma Platoon, Headquarters and Service Company

Mission

Provide direct medical support to the MEF, to include collecting, clearing, and evacuation of casualties from supported MEF elements, and medical treatment facilities for resuscitative treatment care and temporary holding (12 hours) of casualties.

Tasks

Establish and operate clearing stations, as required.

Establish medical treatment facilities for resuscitative treatment and temporary holding of casualties.

Provide and coordinate medical evacuation.

Provide medical support to personnel of other services and coalition forces as provided in applicable regulations and agreements, and humanitarian care as required by international law.

Concept of Organization

The STP is a small, self-mobile HSS capability of the medical battalion, and is the first medical treatment facility of the MAGTF in support of the BAS. The STPs are structured to facilitate task organization for operations conducted by the battalion in support of the MEF, the MEB, or any combination of smaller MAGTFs. The platoon consists of a stabilization section and a collecting and evacuation section.

Command and Control. The H&S company commander directs and controls command support functions relating to operations, administration, and logistics/CSS for the platoon.

Firepower. Organic firepower is limited to individual weapons and crew-served weapons for personal protection and for defense of medical installations in accordance with applicable international law.

Mobility. Organizational vehicles provide ground mobility. Vehicles, personnel, and equipment of the platoon are helicopter transportable. Each collecting and evacuation section has two tactical ambulances (M997) for collecting casualties from the next forward medical support area and the stabilization section has two five ton trucks (or medium tactical vehicle replacements

[MTVRs]) to move the STP personnel and equipment.

Communications. Capable of single channel communications support, to include very high frequency (VHF) and high frequency (HF) single channel radios, and vehicular single channel radios.

Concept of Employment

The stabilization section provides the nucleus for a ten flow through bed (litter) facility. The stabilization section can provide evacuation stations for emergency treatment, triage, and ambulance transfer points. While a degree of mobility is sacrificed in providing a patient treatment facility, the STP must maintain the capability to evacuate their casualties and move in support of BASs and the MAGTF elements it serves. The methods by which this facility is established, displaced, and relocated must keep pace with the mobility and flexibility demanded by MAGTF operations.

Logistic Capability

Supply. The platoon is capable of limited organic supply support to receive, temporarily hold, account for, and issue class VIII supplies. The platoon also serves as a limited emergency resupply source for medical materiel for supported medical units. All other nonmedical supply support is provided by the H&S company of the medical battalion; medical supply support is provided by the medical logistics company.

Maintenance. Capable of organizational (1st and 2d echelon) maintenance on organic equipment. Intermediate (3d and 4th echelon) maintenance support for nonmedical equipment, as required, is provided by the maintenance battalion and for medical equipment, is provided by the medical logistics company of the supply battalion.

Transportation. Organizational vehicles of the company provide limited mobility.

General Engineering. Engineering support, as required, is provided by the engineer support battalion.

Health Services. The platoon is capable of organic medical support. Dental support is provided by the dental battalion.

Services. Services support, as required, is provided by the service company of the H&S battalion.

Messing. Food service support is provided by the H&S battalion or by the supported CSSE.

2015. Surgical Company

Mission

Provide general HSS to the MEF, to include medical treatment facilities for the medical and surgical care and temporary holding of casualties. A surgical company is designed to support a regimental or MEB-sized force.

Tasks

Be prepared to receive casualties from forward medical treatment teams in the evacuation chain.

Establish medical treatment facilities for resuscitative surgery, medical treatment and temporary holding of casualties from supported forces.

Prepare casualties for evacuation whose medical need exceeds the capability and established theater evacuation policy.

Provide and coordinate medical evacuation for the landing force (LF).

Provide medical support to personnel of other Services and coalition forces as provided in applicable regulations and agreements, and humanitarian care as required by international law.

Provide emergency dental care to support forces.

Concept of Organization

The company is organized to plan, coordinate, and supervise assigned functions of medical support for the battalion. It is structured to facilitate task organization for operations conducted by the battalion in support of the MEF, the MEB, or any combination of smaller MAGTFs. The company consists of a headquarters platoon, a triage/evacuation platoon, surgical platoon, holding platoon, combat stress platoon, and ancillary service platoon. The surgical platoon consists of three surgical sections that each supports one operating room (2 tables per section) for 24-hour operations. The holding platoon contains three ward sections each containing 20 medical/surgical beds. The ancillary services platoon contains two laboratory sections, two pharmacy sections and two x-ray sections. An attached dental platoon provides dental support and will assist in the care and evacuation of casualties.

Command and Control. The company commander directs and controls command support functions relating to operations, administration, and logistics/CSS for the company.

Firepower. Organic firepower capability is limited to individual and crew-served weapons for personal security and defense of the medical installations in accordance with applicable international law.

Mobility. Organizational vehicles of the company are helicopter transportable and provide limited mobility. Transportation support is required from the transportation support battalion to effect displacement.

Communications. Capable of single channel communications support, to include VHF and HF

single channel radios, vehicular single channel radios and analog switchboard and telephone support.

Concept of Employment

An entire surgical company is structured to facilitate task organization for operations conducted by the battalion in support of the MEB, MEF, or any combination of smaller MAGTFs. The surgical company is designed to allow a high degree of mobility and flexibility in deployment. A surgical company may be divided into smaller sections to task-organize the support. This facilitates deploying a platoon or section in the AE and the remaining capability in the AFOE shipping. In a displacement and relocation evolution, it may be expedient to move platoons and sections in leapfrog fashion, in order to provide maximum continuity of patient care.

Logistic Capabilities

Supply. The company is capable of organic supply support to receive, temporarily hold, account for, and issue class VIII supplies and serves as an emergency resupply source for medical materiel for supported medical units. All other nonmedical supply support is provided by the H&S company of the medical battalion, and medical supply support is provided by the medical logistics company of the supply battalion.

Maintenance. The company is capable of organizational (1st echelon) maintenance on organic equipment. Organizational (2d echelon) maintenance support for nonmedical equipment is provided by the H&S company of the medical battalion. Organizational (2d echelon) and intermediate (3d and 4th echelon) maintenance support for medical equipment is provided by the medical logistics company of the supply battalion. Intermediate (3d and 4th echelon) maintenance support for nonmedical equipment is provided by the maintenance battalion.

Transportation. Transportation is limited to ground ambulances. Motor transport support is provided by or coordinated through H&S company of the medical battalion. Support from Transportation Support Battalion is required for displacement or relocation.

General Engineering. Engineering support, as required, is provided by the engineer support battalion.

Health Services. The company is capable of organic medical support. Dental support is provided by the dental battalion.

Services. Services support, as required, is provided by the service company of the H&S battalion.

Messing. Food service support is provided by the H&S company of the medical battalion, the H&S battalion, or by the supporting CSSE.

2016. Dental Battalion

The dental battalion is the source of dental services to the MEF. By attaching scalable task-organized dental sections and detachments to elements of the MAGTF, battalion personnel ensure dental readiness and optimize health during exercises, deployments, military operations other than war, and combat operations.

Mission

Provide scalable task-organized dental elements to the CSSE in order to minimize the effects of dental emergencies, injuries and illness on unit effectiveness, readiness and morale. Provide prompt, forward disposition of dental casualties via rapid treatment and return to duty or evacuation. Assist in the care and evacuation of casualties.

Tasks

Provide a comprehensive program of garrison dental health care for the MEF.

Coordinate MEF dental health care support requirements.

Provide dental detachments, as required, to support MAGTFs smaller than a MEF.

Supervise implementation of dental health care delivery programs for the MEF.

Provide medical care and evacuation of casualties as required.

Assist in forensic identification.

Concept of Organization

The dental battalion consists of a headquarters and three dental companies from which task-organized operational dental support is provided to the MEF, MEB, or any combination of smaller MAGTFs.

Command and Control. The battalion commander exercises command and control of the battalion through the battalion staff and the company commanders. He directs and controls command support functions of operations, administration, and logistics/CSS for the battalion. The battalion commander deploys as a member of the FSSG commanders' special staff to advise on dental matters and to coordinate employment of dental personnel and resources.

Firepower. Organic firepower capability is limited to individual weapons for personal security and defense of dental installations in accordance with applicable international law.

Mobility. Organizational vehicles of the battalion are helicopter transportable and provide limited mobility. Transportation support is required from the transportation support battalion to effect displacement.

Communications. Communications support is provided by the communications company of the H&S battalion.

Intelligence. Intelligence support is provided by the H&S battalion.

Security. Security support is provided by the H&S battalion.

Concept of Employment

The dental battalion provides scalable task-organized support to the MEF. Expeditionary field dental equipment/ supply authorized dental allowance list (ADAL) 662, organic to the dental battalion, will be lightweight, compact, mobile, and capable of being independently sited. Each ADAL will provide dental diagnostic, preventive, emergency, and maintenance capability.

Logistic Capability

Supply. The battalion is capable of organic supply support. Class VIII medical supply support is provided by the medical logistics company.

Maintenance. The battalion is capable of organizational (1st and 2d echelon) maintenance on organic dental and non-dental equipment and intermediate (3d echelon) maintenance on organic dental equipment. The medical logistics company of the supply battalion provides intermediate (3d and 4th echelon) maintenance support for dental equipment and maintains the ADALs. Intermediate (3d and 4th echelon) maintenance support for non-dental equipment is provided by the maintenance battalion.

Transportation. The battalion is capable of organic transportation support for command and administrative purposes.

General Engineering. Engineering support, as required, is provided by the engineer support battalion.

Health Services. Medical support is provided by H&S battalion, and dental support is provided by the dental battalion.

Services. Services support, as required, is provided by the service company of the H&S battalion.

Messing. Food service support will be provided by the the H&S battalion. When the dental battalion is collocated with the medical battalion, food service support may be provided by the medical battalion.

2017. Medical Logistics Company, Supply Battalion, Force Service Support Group

The medical logistics company (MedLogCo) is not an HSS organization of the medical battalion, but a supply and maintenance operation directly responsible to the Commanding Officer, Supply

Battalion, FSSG. The MedLogCo provides the organizational structure of centralizing HSS capability set maintenance and management within the FSSG.

Mission

Receipt, storage, management, and issue of Class VIIIA supplies and equipment in support of HSS capability sets assigned to HSS elements of the force; provide for inventory, quality control, stock rotation and general management of capability sets prior to issue to using units; and provide appropriate repair/maintenance for HSS equipment for the MEF.

Tasks

Provide general supply support, to include establishment and operation of Class VIIIA supply points, and acquisitions, receipt, and issue, for class VIIIA materiel of the MEF.

Provide organizational (1st and 2nd echelon) maintenance on organic equipment and intermediate (3d and 4th echelon) maintenance support for class VIIIA equipment of the MEF. Provide support for packing, preserving, storing, and maintaining Class VIIIA resupply.

Provide for the receipt, storage and issue of Class VIIIA supplies; intermediate (3d and 4th echelon) maintenance support for biomedical/technical medical and dental equipment: and 1st and 2nd echelon maintenance support for MAGTF medical and dental equipment.

Provide technical assistance to MAGTF medical and dental units for the maintenance, inventory and quality control of units AMAL/ADALs.

Establishes and operates Class VIIIA supply points, within the CSSE in support of the MAGTF to include acquisition, receipt, storage, stock rotation and issue of Class VIIIA material, as directed by Commanding Officer, Supply Battalion.

Initiates line items issue of Class VIIIA supplies when directed.

Use commercial contracting programs such as prime vendor and vendor managed inventory to; reduce local logistics expense for warehousing, local contracting, bill payments, smaller inventories, lower materiel costs, improved materiel shelf life and rotate the inventory to prevent it from reaching its expiration date. The net result over time will be a reduction in disposal costs and greater accuracy in readiness reporting.

Other tasks as may be prescribed by the Commanding Officer, Supply Battalion, FSSG.

Concept of Organization

The MedLogCo consists of a headquarters section, three supply platoons and an equipment repair platoon. The company is organized to plan, coordinate, and supervise the common support functions of the battalion. It is structured to facilitate task organization of detachments in support of MAGTF operations.

Command and Control. The company commander directs and controls command support functions relating to operations, administration, and logistics/CSS for the company.

Firepower. Organic firepower capability is limited to individual weapons for personal security.

Mobility. Organizational vehicles of the company provide limited mobility. Transportation support is required from the transportation support battalion to effect displacement.

Communications. Communications support, as required, is provided by the H&S battalion.

Concept of Employment

The company is structured to provide a centralized supply and maintenance facility for class VIIIA supplies and equipment. The supply platoons are capable of centralized operations under MedLogCo or decentralized operations in three balanced units in support of a MEF, MEB, or smaller MAGTFs. The equipment repair platoon is capable of in-store maintenance of medical and dental equipment of the MEF, and operating in a centralized repair site and/or through decentralized, on-site maintenance support teams.

Logistic Capabilities

Supply. The company is capable of organic supply support.

Maintenance. The company is capable of organizational (1st echelon) maintenance on organic equipment and organizational (1st and 2d echelon) and intermediate (3d and 4th echelon) maintenance on medical and dental equipment of the MEF. For other organic nonmedical/nondental, Marine Corps-furnished equipment, organizational (2d echelon) maintenance support is provided by the H&S company of the supply battalion, and intermediate (3d and 4th echelon) maintenance support is provided by the maintenance battalion.

Transportation. The company is capable of organic transportation support for command and administrative purposes. To effect distribution of class VIII supplies, augmentation by the transportation support battalion is required.

General Engineering. Engineering support, as required, is provided by the engineer support battalion.

Health Services. Medical support is provided by H&S battalion, and dental support is provided by the dental battalion.

Services. Services support, as required, is provided by the service company of the H&S battalion.

Messing. Food service support is provided by H&S battalion.

Chapter 3
Non-Marine Corps HSS Assets

3001. Mobile Medical Augmentation Readiness Teams and Task-Organized Capabilities Based Process

The component unit identification code (UIC) process and MAP have replaced the Bureau of Medicine and Surgery (BUMED) Mobile Medical Augmentation Readiness Team (MMART) Program. BUMED Instruction 6440.5 series, *Medical Augmentation Program (MAP)* contains detailed information on the medical augmentation program.

Augmentation during wartime is provided through MAP i.e., Hospital Ships (T-AH), MARFOR, CRTS, Forward Deployed Preventive Medicine Units (FDPMU), Expeditionary Medical Facility (EMF) and outside the continental United States (OCONUS) MTF augmentation. The personnel assigned to these platforms represent medical skills and training requirements as well as capabilities tailored to the platform assigned. If any operational commander requires medical support above and beyond the MAP defined above, Naval Medicine has the capability to task organize to meet that requirement. The operational commander may request the required capability from the Chief of Naval Operations via the operational chain of command.

3002. Fleet Surgical Teams

Fleet surgical teams (FSTs) are 16 member HSS augmentation teams permanently assigned to the fleet combatant commanders. The FSTs provide surgical and medical support to all the amphibious ready groups while deployed. Staffing includes a general surgeon, anesthesiologist or nurse anesthetist, family practice physician, operating room nurse, and intensive care nurse. Medical support for other peacetime contingencies that cannot be covered by the FSTs will be provided by MAP.

3003. Forward Deployable Preventive Medicine Unit

The forward deployable PM unit (FDPMU) is a rapidly deployable, task-organized, specialized PM platform that meets the operational commander's FHP needs. It includes all capabilities of the former forward deployed laboratory plus many expanded capabilities, including NBC agent identification.

Mission and Functions. The mission of the FDPMU is to further FHP by identifying and evaluating EH hazards, assessing the risk of adverse health outcomes, monitoring the health of the deployed force, and advising the operational commander concerning significant risks and recommended countermeasures and other interventions needed to protect the health of the force. The FDPMU is organized in four major functional components.

Preventive Medicine- surveillance data analysis, epidemiological investigation of outbreaks, provides EH monitoring and assessment, and recommends interventions for prevention and control of occupational and environmental illnesses, injuries, and diseases.

Chemical- detection, identification and monitoring of chemical warfare, environmental, and radiological hazards and exposures.

Microbiology- detection, identification and testing of naturally occurring and biological warfare infectious disease agents, laboratory diagnosis of militarily relevant infectious diseases in support of outbreak investigations.

Disease Vector- surveillance, specimen collection and processing, and control of animals/insects that potentially transmit militarily relevant vector-borne diseases. Provides recommendations regarding force personal protection strategies.

Employment. The FDPMU functions independently of the health care delivery mission of deployed MTFs and focuses on providing rapid health hazard identification and threat assessment to the operational commander rather than on casualty care. The FDPMU is capable of tailoring its size and composition according to operational mission requirements. Any single component or combination of components can deploy as the mission requires. The FDPMU is capable of providing support for the full spectrum of contingencies.

3004. Medical and Dental Facilities of Ships and Landing Craft

In expeditionary operations, designated ships of an expeditionary strike group (ESG) provide medical and dental support to the LF until the mission is completed or until the ships are tasked with a follow-on mission. The ESG ships suitable for use as casualty receiving and treatment ships (CRTS) are the amphibious assault ship (multipurpose) (LHD) and amphibious assault ship (general purpose) (LHA). In order to achieve full casualty treatment capability, these ships require augmentation by a large number of health service support (HSS) personnel. In operational scenarios that fall short of requiring full wartime mobilization, partial casualty treatment capability may be achieved through a task-organized based process to meet operational requirements by requesting augmentation of medical capabilities through MAP via the operational commander's chain of command to BUMED via the Chief of Naval Operations (N931). The numbers of HSS personnel required to bring the LHD and LHA to fully augmented levels are cited in the discussions of individual ship types. Please note that only these two ship types are designated for augmentation under the MAP plan.

The following ships can be included as part of an ESG. Expeditionary HSS support capabilities of these vessels and their potential roles as CRTS are also discussed.

Amphibious Assault Ship (Multipurpose)

The LHD is the newest, largest, and most versatile amphibious assault ship. Externally, it resembles an aircraft carrier. The LHD can transport approximately 1,800 troops, along with aircraft, boats, and amphibious vehicles required to land them.

The LHD has the greatest medical capability of any ship currently in use. Medical capabilities include four major and two minor operating rooms. Beds are designated as 45 primary care, 15 intensive care unit (ICU), and 6 isolation. Dental capabilities include four dental operatories and

a prosthetics lab. It can receive casualties via the flight deck or well deck. It requires 342 HSS personnel to achieve full casualty treatment capability.

Amphibious Assault Ship (General Purpose)

The LHA can transport approximately 1,900 troops with aircraft, boats, and amphibious vehicles required to land them. LHAs are designed to function as CRTS in expeditionary operations. Medical spaces include two major and two minor operating rooms. Beds are designated as 45 primary care, 15 ICU, and four isolation. Dental spaces include one oral surgery operating room and two general dental operatories, with supportive diagnostic, patient management, and treatment facilities. LHAs require augmentation by 178 medical department personnel to achieve full casualty treatment capability. It can receive casualties via the flight deck or well deck.

Amphibious Transport Dock

Amphibious transport docks (LPDs) are used to embark, transport, and off-load components of a LF utilizing landing craft and expeditionary vehicles. LPDs have limited helicopter lift capability. LPDs can carry 900 troops and offer only limited potential for use as CRTS.

Medical spaces include an operating area suitable for minor surgery and 6 to 8 primary care beds and one isolation bed. Dental spaces include a general dental operatory. These ships could be used as emergency or overflow CRTS only if augmented with medical personnel and supplies. However, MAP does not address augmentation for LPDs. When available, the LPD-17 Class will have the same general mission capabilities as previous LPD class ships. The medical spaces will include two operating rooms (one major and one minor) and 24 primary care beds. The medical space will also offer state of the art technology in command, control, communications, computers, and intelligence capabilities as well as intravenous fluid and oxygen generating capability.

Dock Landing Ship. Although called a landing ship, the dock landing ship (LSD) does not beach. These ships are similar to LPDs but their well decks are larger and their troop and cargo-carrying capacity is more limited. The LSD primarily serves as a mother ship for landing craft and amphibious vehicles. LSDs transport landing craft and amphibious vehicles to an objective area and repair and maintain them during an operation. Older LSDs are not suitable for use as CRTS. Newer LSDs (Class 41 and newer ships) have limited potential for use as CRTS.

Medical spaces include an operating space suitable for minor surgery and six primary care beds. Dental spaces include a general dental operatory. LSDs can be used as emergency or overflow CRTS only if augmented with medical personnel and supplies. Only newer LSDs have a physician aboard.

Amphibious Command Ship. The mission of an amphibious command ship (LCC) is to serve as a floating command center for expeditionary operations. These ships are equipped with sophisticated electronic and communication equipment and normally serve as the flagship for both ESG commander and the LF commander. The LCC mission and limited 24-bed capacity

preclude its use as a CRTS. It has adequate medical and dental facilities to care for embarked personnel. The ESG surgeon, LF surgeon, and other key medical staff officers are normally located on an LCC during expeditionary operations. The LCC serves as the medical nerve center of the ESG until operational cognizance is passed ashore with the LF.

Hospital Ship. The hospital ship (T-AH) is a floating surgical hospital vested with the mission to provide acute medical care in support of combat operations at sea and ashore. Support may be provided to an expeditionary task and/or to joint and combined forces. In carrying out this mission, the T-AH--

- Receives patients suffering from wounds, disease, or nonbattle injury.

- Provides on-site emergency and recuperative care to patients until they can be returned to duty or evacuated.

- Provides a safe, stable mobile platform for carrying out the assigned mission.

- Provides necessary personnel, services, and facilities required for the support of the medical facility.

- Operates a full medical facility while at sea, day and night with minimal maintenance and refueling.

The T-AH is designed to receive patients primarily by helicopter. It has very limited capacity for receiving patients by boat. Initial triage is performed in a casualty reception area. This area has a total of 50 positions, each with piped oxygen, suction and cardiac monitoring capabilities. The operating complex consists of 12 operating rooms that are equipped for orthopedic, urological, neurological, thoracic, vascular, eye ear nose throat, and general surgical procedures. Adjacent to the operating complex is a recovery room with 20 beds, each with oxygen, suction, and patient monitoring equipment. The ICU consists of 80 beds. Intermediate, light, and limited care wards offer an additional 900 patient beds. The T-AH has services comparable to those offered in major hospitals, plus special gases generation and water distillation facilities.

Fleet Hospital

Each maritime pre-positioning ships squadron (MPSRON) contains a 500 bed fleet hospital (FH) that, when established, has three operating room suites with two operating room tables each for a total of six operating room tables, 80 intensive care unit beds, and 420 ward beds. These facilities are USN assets embarked on MPF ships, forward deployed and configured for use in contingencies. Although the FH is transported on the MPF, once it enters the theater of operations it becomes a capability of the geographic combatant commander. FH is operated and staffed by Navy personnel through MAP coordinated by BUMED. Additionally the Navy has eight 500-bed fleet hospitals that provide full resuscitative and emergency surgery.

As the fleet hospitals are phased through the integrated logistics service program they are being modularized to allow for smaller more mobile hospital units. Smaller EMFs range from 10 to 116 beds that can run independently and can be expanded.

3005. Medical Information and Intelligence

Medical intelligence products most widely used throughout DOD include products produced by Armed Forces Medical Intelligence Center (AFMIC). AFMIC is a Field Production Activity of the Defense Intelligence Agency and its mission is to provide medical intelligence to support US operational forces, DOD and its components, national policy officials and other federal agencies. AFMIC gathers medical intelligence through planning and direction, collection, processing, production, and dissemination.

AFMIC products include--

Medical, Environmental, Disease Intelligence and Countermeasures (MEDIC): the MEDIC CD-ROM provides worldwide infectious disease and EH risks hyperlinked to the Joint Service-approved countermeasure recommendations, military and civilian health care delivery capabilities, operational information, disease vector ecology information and reference data.

Infectious Disease Risk Assessment (IDRA)- IDRAs assess the risk from infectious diseases of operational military significance on a country-to-country basis worldwide. IDRAs are available via INTELINK and the MEDIC CD-ROM.

Environmental Health Risk Assessment (EHRA)- EHRAs assess EH risks of operational military significance on a country-by-country basis worldwide. EHRAs are available via INTELINK and the MEDIC CD-ROM.

Health Services Assessment- The Health Services Assessment is designed to provide consumers the bottom-line assessment of the health services capability of a country, with limited descriptive data and examples relating only to critical elements of the civilian and military health care systems.

Urban Medical Capabilities Study- The urban study includes a map of the urban area, general health information, and locations, descriptions, and images of key medical treatment facilities.

AFMIC Wire- The AFMIC wire is a current intelligence document, presenting analysis of newly reported information of immediate interest to deployed/deploying forces.

Disease Occurrence Worldwide- The Disease Occurrence Worldwide provides time-sensitive updates to the IDRAs. It is published monthly as an unclassified message with a classified supplement, if necessary.

Life Sciences and Technologies- These studies assess foreign basic and applied biomedical and biotechnological developments of military medical importance, foreign civilian and military pharmaceutical industry capabilities, and foreign scientific and technological medical advances for defense against nuclear, biological and chemical warfare.

Handbook of Diseases of Military Importance. This publication is a one-time unclassified product presently stocked by the Defense Intelligence Agency. The product is a compilation of medical information on a historical spectrum of diseases determined to be of military importance. Since disease occurrence tends to be dynamic, this publication should be used in conjunction with updated information published by AFMIC in other products.

Requests for information (RFI) – the RFI is your way of asking AFMIC for answers to questions that are not found in published studies. Generally, an RFI is a project requiring 40 hours or less for AFMIC to complete. RFIs should be directed to AFMIC through the community on-line intelligence system for end-users and managers or by contacting AFMIC Operations at its 24-hour contact number, Defense Switched Network 343-7574 or commercial (301) 610-7574. Telephones are secure via secure telephone unit III through the top-secret sensitive compartmented information level.

Other Intelligence Sources

National Intelligence Survey and National Intelligence Estimate. Published by the Central Intelligence Agency, these documents are comprehensive and contain detailed information on medical and sanitation conditions in the area of interest. Documents on a large number of areas may be requested from the G-2/S-2 officer.

Local Command G-2 Sections. Additional medical intelligence may be requested through G-2 sections of MEF, division, wing, or FSSG.

Naval Environmental Health Center, Norfolk, VA, Navy Environmental and Preventive Medicine Units, and Navy Disease Vector Ecology and Control Centers. These facilities offer updated disease information on areas of the world or specific countries.

All medical intelligence and information, no matter what the form or source, must be shared with cognizant G/S-2 staff sections. Medical personnel should be aware that gathering medical information from the field that may have an intelligence application is an important function of Navy medicine.

Chapter 4
Operations

The Marine Corps master plan establishes operational foundations for organizing, manning, equipping, training, and developing doctrine and operational techniques for MAGTFs of the Marine operating forces. Regardless of type, size, or mission, HSS is a mission area common to every MAGTF. Therefore, definitive operational planning for HSS is always subordinate to specific MAGTF operational planning. The inherent flexibility in MAGTF task organization and broad spectrum of potential missions call for matching flexibility in subordinate mission area planning.

Size, type, and configuration of HSS facilities to effectively support a MAGTF will be determined by-

- MAGTF's mission.
- Scope and expected duration of the operation.
- Expected combat intensity.
- Availability of other HSS facilities in AO.

These factors notwithstanding, there exists a notional HSS operational framework applicable to each basic MAGTF type. The following paragraphs provide a conceptual framework within which HSS operations may be viewed and training conducted.

4001. The Marine Expeditionary Force

The medical and dental battalions of the FSSG normally provide HSS beyond the organic capabilities of MEF ground combat and ACEs. Additional support may be required from designated CRTSs of the ESG. In any MEF-sized operation, it is expected that medical support will also be required from medical facilities of other Services within the theater of operations.

Collocation of health service facilities, whenever possible, may enhance the capabilities of the medical battalion. Economies may be realized in utilization of medical department personnel, unit defense, transportation, etc. However, consolidation provides a larger target and may limit mobility and employment options. The decision to consolidate or disperse health service assets will be made by the operational commander during the planning phase. Subsequent tactical events may require modification of original plans. If required, task-organized HSS elements may be detached to support geographically remote ground and aviation forces.

4002. The Marine Expeditionary Brigade

The GCE and ACE of a MEB receive HSS above their organic capabilities from task-organized components of the medical and dental battalions. Additional support may be required from designated CRTS of the ESG, and may be required from medical facilities of other Services within the theater of operations, such as Navy fleet hospitals and T-AHs.

The notional task-organized HSS for a MEB consists of a group aid station for Level I care, two

to four STPs, one to three FRSSs, one surgical company augmented by a dental platoon, en route care capability, preventive medicine personnel and a medical logistics detachment. This HSS structure operates as part of the CSSE supporting a MEB. The CSSE for a MEB is designated as a brigade service support group. Note: There is not an established T/O and table of equipment (T/E) for a MEB since they are task organized for the mission from the units available within the MEF.

MEB HSS personnel embarked on amphibious force (AF) ships will augment AF medical and dental departments in providing care to embarked personnel of the LF. Landing force class VIII equipment and consumable supplies will not be used in the "afloat phase" of medical support, except when authorized by the MEB commander.

A dental section from dental battalion provides dental support for the MEB. The dental section provides preventive dental maintenance and emergency dental care for the deployed MEB and to render assistance to medical units in the triage, care, and evacuation of casualties.

4003. The Marine Expeditionary Unit

The MEU receives its HSS organic capabilities from task-organized components of the medical and dental battalions, FSSG. These components are located in the MEU service support group (MSSG), and may include--

- Shock/Trauma Platoons
- MedLogCo Detachment.
- Dental Detachment.

Before operations start, MEU HSS personnel aboard amphibious ships will augment and support AF medical and dental departments to care for embarked personnel of the LF. Landing force Class VIII equipment and supplies will not be used aboard ship unless authorized by the MEU commander in support of an overwhelming emergency.

If it is determined that HSS elements of the MSSG will remain afloat and carry out their mission from a sea base, those elements will augment medical and dental departments of the AF in a combined HSS effort. The MEU surgeon may recommend that MEU commander authorize HSS personnel of the MSSG to use class VIII consumable supplies and equipment if necessary to carry out their mission. This contingency should be addressed in the OPORDs.

The HSS element of the MSSG are capable of operations ashore. The shore-based element may be no more than a beach or helicopter evacuation station manned by a triage/evacuation platoon or an STP. The operation may require that the entire HSS section of the MSSG be located ashore. The following guidelines apply, regardless of tactical basing of HSS elements.

- Combat and CSS elements of the MEU are responsible for collection and initial treatment of casualties.

- The absence of dedicated Marine Corps medical evacuation aircraft dictates that during the

HSS planning process, prior planning with the ACE medical planner is essential to request either designated or standby airframes to perform casualty evacuation if available. During advance force operations and follow-on force operations the wing medical planner may have the opportunity to designate airframes in the air tasking order (ATO). In the absence of a casualty evacuation capability, casualty evacuation will be accomplished with surface transportation. Any available form of transportation may be used for casualty evacuation.

- The dental detachment in support of a MEU uses afloat facilities/supplies, and when required, LF Class VIII dental equipment/supplies to provide emergent, maintaining and preventive dental care while embarked. When ashore, the dental detachment will provide scaled dental treatment based on the tactical environment and logistical maturity of the theater. Additionally, they will assist in the care and evacuation of casualties.

4004. Sea Based/Amphibious Operations

Recognize that the phased landing of medical facilities in the amphibious objective area (AOA) will vary with the tactical situation and physical environment.

Assault Echelon

In the AE, medical support ashore is limited to the capabilities of medical sections organic to combat units. Until BASs are established ashore, medical care for initial assault forces is provided by self-aid, buddy aid and the corpsmen of landed rifle platoons.

Infantry BASs and their personnel are normally divided into two sections, with assigned battalion non-medical litter bearers divided between the two sections. The 1st echelon of a BAS lands with the battalion combat train and is established in close support of the assault force. The 2d echelon of the BAS lands with the field train, and may be required to establish an evacuation station until relieved by designated evacuation station support elements.

Evacuation station facilities are normally task-organized and formed by the supporting medical battalion, drawing assets from collecting and evacuation sections of STPs or triage/evacuation platoons of surgical companies. Evacuation stations are normally established with the landing force support party (LFSP), and constitute the evacuation section(s) of the LFSP. The primary role of an evacuation station is to facilitate evacuation of assault force casualties to designated CRTS.

When evacuation stations attached to the LFSP become operational ashore, 2d echelon elements of BASs are relieved to conduct their missions in primary support of parent battalions. Following the landing of assault battalions and supporting evacuation stations, the buildup of HSS facilities ashore begins.

Assault Follow-on Echelon

The buildup of LF HSS facilities ashore begins as soon as the tactical situation permits. These facilities are primarily the task-organized medical battalion elements embarked to support

combat operations. In a notional MAGTF scenario involving a MEB, the first medical battalion unit landed could be either a group of STPs or a surgical company. By virtue of its size and time required to make the facility operational, STPs would normally be selected. In another scenario, a surgical company might be the first large facility landed. The initial facility establishes shore-based capabilities for emergency care, stabilization, and temporary holding of casualties.

Surface evacuated casualties from LF units normally flow through shore-based facilities, once those facilities are established. Casualties evacuated by air may bypass shore based facilities en-route to a CRTS.

It may be necessary to employ additional STPs and/or surgical companies in the AOA to achieve adequate dispersion of facilities. Such decisions are dictated by enemy threat, geographical employment of MAGTF elements (especially fixed-wing aviation), and other tactical and environmental considerations.

If aircraft and a suitable airfield are available, casualty evacuation by fixed-wing aircraft from the AOA to medical treatment facilities located further back in theater may begin during this stage.

Dental care will be provided during AFOE phase to retain combat troops in theater. A dental section will employ with each surgical company. A dental detachment from a DP-G may be employed to reinforce STPs with attached surgical sections to treat and evacuate casualties.

Follow-on Forces

When progress of assault units is such that the beachhead is relatively secure, LF HSS facilities move into the follow-on force stage.

A major LF medical support objective is to achieve a posture capable of providing shore-based health care consistent with the expected combat intensity and duration of continued operations ashore, independent of sea-based facilities. This objective is achieved by upgrading capabilities ashore through consolidation of facilities and bringing ashore any LF medical assets not already landed.

Since the surgical company is a major link in the chain of evacuation it should, whenever possible, be located in close proximity to an airfield capable of casualty evacuation by fixed-wing aircraft.

When a sustained land operation is envisioned for the MAGTF, additional medical support facilities will normally be provided in the form of Navy fleet hospitals (or other Service equivalent facilities), or a T-AH.

As the HSS capability ashore matures, dental care will transition from emergent care to maintaining/preventive services. The stages described in the foregoing paragraphs represent only notional or general scenarios. Potential variables resulting from such factors as threat level, tactical mission, terrain, geography, weather, force at risk, opposing forces, etc., will dictate

progression through force build-up stages.

4005. Enemy Prisoners of War

In accordance with laws of land warfare, enemy prisoner of war (EPW) patients are afforded the same level of health care as patients of the detaining power. The provision of guards for prisoners receiving medical treatment and for wards housing prisoners is a command responsibility. Since casualties receiving medical care are potential intelligence sources, medical personnel should cooperate closely with unit intelligence officers. MTFs are not to be used in lieu of an EPW stockade, nor will medical treatment be withheld or delayed purely to facilitate interrogation of prisoners. Enemy medical personnel should be used to provide assistance in treating other prisoners.

4006. Health Service Support for Other Special Category Patients

In modern military operations, health care services may be required by a wide category of potential patients. These potential demands should be carefully considered in initial planning. Categories that require careful consideration include indigenous allies, friendly and unfriendly civilians, paramilitary organizations, representatives of various US agencies, US civilian contractor personnel, mercenary units employed by the allied forces, etc. As a general rule, any individual may be treated on a humanitarian basis, if space and staff are available. Fine lines of distinction often exist that must be clarified by the command. For example, wounded unfriendly civilians may be subject to restrictions and regulations that do not apply to EPWs.

4007. Patient Movement

Care of the sick and wounded in any area of combat is greatly influenced by the prevailing tactical situation. Conditions are seldom static, and success must remain the primary goal of combat, combat support, and CSS units. This environment requires a dynamic casualty management decision-making process that must be applied at all HSS units and in the patient movement system.

Patient movement is a system that provides a continuum of care and coordinates the movement of patients from point of injury or onset of disease through successive levels of medical care, to an MTF that can meet the needs of the patient. Prompt movement of casualties through the evacuation system to treatment facilities is essential to decrease morbidity and mortality. If casualties occurred at regular intervals, in constant numbers, at predetermined locations, and with predictable injuries, their movement would require little or no coordination, but this is rarely the case. Patient movement within the task force is a vital support factor that must be planned and exercised. Personnel must be trained on equipment and procedures in advance of operations in the field otherwise lives will be lost until knowledge is gained. Coordination of casualty movement is especially critical during operations when casualties must be moved from shore to ships of the task force. When properly applied, the patient movement process ensures that patients move only as far rearward in the continuum of care as their health needs dictate which, in turn, assures the efficient and effective use of the limited HSS assets available to the

task force. Functions of patient movement include medical regulating, patient evacuation, and en route medical care.

Medical Regulating

The actions and coordination necessary to arrange for the movement of patients through the levels of care. This process matches patients with a medical treatment facility that has the necessary health service support capabilities and available bed space.

Casualty Evacuation versus Medical Evacuation

Casualty evacuation (CASEVAC), a term used by all Services, refers to the movement of unregulated casualties aboard vehicles or aircraft. It includes movement both to and between medical treatment facilities. Casualty evacuation is the transport of casualties from the point of injury to the casualty collection or forward resuscitative surgery facility. For the Marine Corps, this includes transport from the point of injury or casualty collection point to the BAS, STP, FRSS or surgical company.

If dedicated ground ambulances or designated aircraft are available, casualties should be evacuated on these conveyances to ensure they receive en route medical care.

If available evacuation resources are overwhelmed (such as in a mass casualty situation), some casualties (usually with minimal or nonlife-threatening injuries) may be required to be transported on nonmedical vehicles. Medical personnel on-site will determine the priority for evacuation. When possible, nonmedical vehicles/ aircraft transporting casualties should be augmented with a corpsman. The type of en route surveillance and medical care/first aid provided is limited by the following factors--

- Skill level of the individual providing care.
- Equipment available.
- Number of casualties being transported.
- Accessibility of the casualties. (If the nonmedical ground vehicle is loaded with the maximum number of casualties, the corpsman will not be able to attend to the casualties while the vehicle is moving. At best, if the condition of a casualty deteriorates and emergency measures are required, the vehicle will have to be stopped to permit care to be given.)

Medical evacuation (MEDEVAC) traditionally refers to patient movement using predesignated tactical or logistic aircraft temporarily equipped and staffed with medical attendants for en route care. The provision of en route care enhances the patient's potential for recovery and may reduce long-term disability by maintaining the patient's medical condition in a more stable manner.

Medical evacuation or tactical evacuation is the transport of patients from a casualty collection or forward resuscitative facility to a theater hospital. For the Marine Corps, this includes transport

of patients from a BAS, STP, or FRSS to a surgical company and evacuation from FRSS or surgical company to a theater hospital.

It is important to understand interservice differences in terminology. It is common to hear Navy, Marine Corps, and Army personnel refer to "MEDEVAC" when describing the air evacuation of wounded from the battlefield. The Air Force, however, considers the term "MEDEVAC" to be reserved for the aeromedical evacuation of a stabilized patient from one MTF to another. As stated before, for the Marine Corps, CASEVAC is the transport of casualties from the point of injury to the casualty collection or forward resuscitative surgery facility. The casualty may have received no care or may have received care from a buddy, a field corpsman, or a medical officer. MEDEVAC or tactical evacuation is the transport of patients from a casualty collection or forward resuscitative surgery facility to a theater hospital.

Protection under the Geneva Conventions. Depending upon the designation of patient evacuation assets, protection under the Geneva Conventions differs--

- **Dedicated evacuation assets** are configured for patient evacuation, externally marked with a red cross and specifically dedicated to support the medical evacuation missions. Dedicated assets need not be organic to the unit. Dedicated assets are authorized protection under the Geneva Conventions. The Navy and Marine Corps do not have dedicated air evacuation assets, except ground ambulances. Dedicated assets must only be used for medical purposes. They should not be used to transport combat troops or equipment; otherwise, they will lose their protection under the Geneva Conventions.

- **Designated evacuation assets** are those whose primary mission is non-medical, are not externally marked, and are allocated on the ATO and configured for patient movement. Designated evacuation assets are not afforded protection under the Geneva Conventions.

- **Lifts of opportunity** are usually non-medical conveyances used to move patients. They are not protected under the Geneva Conventions. Lifts of opportunity have no organic medical personnel or medical equipment assets; therefore, lifts of opportunity should only be used if the patient condition warrants.

The limited number of MAGTF assault support aircraft precludes assignment of dedicated casualty evacuation assets for an operation. Although many of these aircraft can perform this mission, it will often be designated as a secondary or standby mission. Aviation doctrine for casualty evacuation is found in MCWP 3-24, *Assault Support*, which places casualty evacuation as one of the missions under the air evacuation subcategory of assault support.

In the absence of dedicated evacuation aircraft, doctrine dictates that during the HSS planning process, prior planning with the MAW medical planner is essential to request either designated or standby airframes to perform patient movement. Within the MEF, the FSSG HSSE conducts planning for medical evacuation aircraft. In the absence of an aviation casualty evacuation capability, casualty evacuation will be accomplished using any surface (water or ground) transportation available (i.e., ground ambulance, MTVR, small boat, landing craft air cushion, etc.).

Casualty Sorting

Basic to the successful operation of a patient movement system is an effective process of casualty sorting also referred to as triage. Rapid evaluations must be made to identify which patients need immediate resuscitation and which can tolerate delay in treatment. Of equal importance, after initial treatment, is deciding which patients should be moved to other medical facilities.

Medical Management

Under combat conditions, the flow of sick and wounded puts variable pressure on capabilities of medical facilities. Incoming casualties create the necessity to move casualties who are stable and are capable of being evacuated. Close coordination between clinical and administrative services must be maintained to achieve effective management of individual casualties. Medical officers are responsible for decisions concerning movement of patients. They must work closely with administrative officers charged with conducting patient movement. Above all, the basic objective is preserving life and limb.

Evacuation Request Procedures

Normally, requesting units make casualty evacuation requests by radio to the helicopter direction center on the helicopter direction net when control is seabased, or the direct air support center (DASC) on the tactical air request/helicopter request (TAR/HR) net when command and /or net control has been passed ashore. The air officer will then consult with either the AF medical regulating control officer when sea based or the LF patient evacuation officer or Patient Evacuation Team (PET) when ashore for recommendations on the best medical facility.

When conducting operations ashore, the PET coordinates patient movement by either ground or air transport, or a combination of the two, from point of injury to Level II and between Levels I, II, and III MTFs. The DASC and patient evacuation team (PET) receive patient evacuation requests via the NATO 9-line MEDEVAC request over the TAR/HR net or alternate communication route. The PET then determines the appropriate means of patient movement and destination HSS facilities. If air is the appropriate evacuation means, the DASC coordinates air support. If ground evacuation is required or more appropriate, the PET informs the requesting unit to coordinate patient movement with the G-4 or CSSE and will assist as necessary. The PET will track all patient movement through completion of the mission.

Dependent upon the size of the operation, the PET might only assume responsibility for patient movement from point of injury to Level II and the FSSG HSSE /medical support operations center (MSOC) or higher regulating authority will assume movement above Level II. This would be decided prior to deployment and written into the Annex Q of the OPLAN or OPORD. During OIF, the 1st FSSG HSSE, as part of the G-3, was designated as the MSOC and functioned within the FSSG command center. The PET was collocated in the DASC to coordinate air evacuation and a smaller patient evacuation cell was collocated in the logistics movement (and engineering) control center for ground evacuation coordination.

En Route Care

Medical evacuation and en route care have proven valuable in saving lives and conserving military manpower. The timely movement of patients to the appropriate levels of care reduces patient waiting time and allows facilities to relocate. The goals for en route care are to ensure the evacuation system can move critically ill or injured patients by the appropriate mode of transportation and preserve forward deployed medical personnel.

En route care requires the use of state-of-the-art; lightweight, critical care equipment to ensure the evacuation system is able to successfully transport a patient from the point of injury or illness to definitive care. En route care equipment will be standardized throughout the system, assuring rapid equipment exchanges and forward resupply, and will comply with flight-testing requirements.

En route care must be flexible and able to integrate with various modes of transportation, rotary/fixed-wing aircraft, and sea transport platforms. Important transportation factors of en route care are availability, mode, operational range, space, and lift limitations. Tactical factors must also be considered at each level of planning and implementing en route care.

En route care provides the capability to move stabilized patients. Essential care initiated prior to evacuation must be continuous. During transport, "stabilized" patients may continue to have physiologic and hemodynamic fluctuations, which may necessitate close monitoring and timely intervention.

During OIF, en route care was critical to the success of FRSS. En route care personnel were identified, trained, and equipped prior to stepping off the line of departure. Critical care nurses from the FSSG and EMFs provided en route care support to forward FRSS units. Forward FRSS units were weighted with en route care nurses during combat operations. Positioning en route care capability with forward medical elements proved to be very valuable, especially mitigating the amount of time required conducting a turnover of patient care to the en route care nurse.

The Marine Corps, en route care system (ERCS) is an essential follow-on for FRSS. The ERCS will be capable of supporting medical care for two critically injured/ill, but stabilized, patients for two hours. ERCS will provide a capability to support expeditionary maneuver warfare (EMW) by meeting an operational requirement to evacuate patients up to 200 nautical miles using designated medium lift aircraft. ERCS will be employed when the tactical situation requires prompt transport of critically injured/ill patients from forward collection and treatment elements to the shore or sea based treatment facilities. Less critically injured/ill patients will be transported using current protocols. Plans call for 60 ERCS equipment sets and 48 trained teams of ERCS personnel. Initial operational capability is expected in FY05 and full operational capability in FY06.

Chapter 5
Dental Service Support

The dental battalion, FSSG is organized and equipped to provide a full range of dental support to the MEF. In garrison, the dental battalion provides comprehensive care to the operating forces to maintain optimal dental readiness and health of deployable units. While deployed, dental service support (DSS) detachments enhance combat power available to the commander to maximize the return of dental casualties to duty while sustaining the dental readiness and health of operational forces. Based on mission requirements, DSS uses flexible, lightweight expeditionary dental equipment to provide task-organized dental detachments to support the dental care requirements of deployed units.

5001. Tenets

DSS offers substantial operational dental support with particular attention to the following--

Prevention

Prevention of disease and injury is the most resource-efficient means of maintaining health. Dental emergencies are minimized with appropriate treatment and continuous individual oral hygiene.

Return to Duty

The primary objective of operational dentistry is to treat dental needs rapidly and return personnel to their unit without degradation of mission performance.

Scalable Dental Support

The dental battalion has command and control of all dental personnel in garrison and can deploy scalable task-organized components to provide dental support to any MAGTF.

The notional reinforced dental company consists of three to four dental platoons-ground (DP-Gs) of six dental officers and nine dental technicians; and one dental platoon-air (DP-A). Each DP-A consists of four wing detachments of one dental officer and two dental technicians each. Size may vary depending on mission requirements. The smallest dental detachment is the dental section (DS) that consists of one dental officer and one dental technician.

DP-Gs are assigned to support a surgical company. DP-As provide support to the MWSG. DSs usually deploy in support of MEUs and special purpose MAGTFs. All components can provide the same level of care for a wide range of missions to include military operations other than war (MOOTW), low intensity conflict, and war. Each dental officer deploys with an expeditionary dental system, ADAL.

Enhanced Forward Care

Forward care reduces time and resources required to evacuate an individual for dental care. DS detachments are organized to provide dental support as far forward as required. Each ADAL contains a subassembly dental unit 2 that consists of two portable, lightweight dental modular lightweight load-carrying equipment (MOLLE) backpacks that provide emergency dental care to a limited number of casualties before resupply from the ADAL.

5002. Mission of Marine Corps Dentistry. The primary mission is to ensure the dental readiness and optimize the dental health of Marine forces. In an operational environment, dental will provide emergency dental care (to include early treatment of severe oral and maxillo-facial injuries) and, when the mission allows, provide essential nonemergency care to include--

- Providing dental treatment as far forward as required to eliminate or reduce the effect of dental disease and injury on mission accomplishment.
- Preventing oral disease.
- Promoting dental health.

The secondary mission is to augment medical personnel. Dental officers will assist in the planning and deployment of dental assets, triage, patient stabilization, wound care, and forensic identification. Dental technicians will assist with triage, patient stabilization, wound care, patient care, and dental forensic identification. They will also perform central sterilization duties and other ancillary duties related to their rate.

5003. Organization of Field Dental Support

The dental battalion commander has additional duties as the MEF and FSSG dental officer. As a special staff officer, he advises the MEF and FSSG commanders on all professional, administrative, and personnel matters relating to dental readiness and support. The MEF and FSSG dental officer reviews OPORDS and OPLANS and recommends employment of available dental assets to ensure optimum utilization.

The field dental care system maintains the dental readiness of the deployed force by preventing and treating dental disease and injury. To accomplish this, dental support is based on a task-organized, flexible structure that responds to rapidly changing conditions across the continuum of missions to provide the required level of dental care. This task-organized support is based on-

- Size of the unit supported.
- Length of deployment.
- Mission (MOOTW, low intensity conflict, war).
- Other dental support requirements.

The mission of expeditionary DSS is to maximize combat power of operating forces through maintenance of a dentally fit force and rapidly return dental casualties to duty. Consistent with the tactical situation the spectrum of dental care provided encompasses expedient emergency care to the full range of essential nonemergency care.

Dental Platoon-Ground

The DP-G consists of six dental officers, nine dental technicians, and six ADALs. It is the dental component of the CSSE of the MEB. Though normally assigned to the surgical company, the DP-G can effectively function attached to any other unit organic to the CSSE able to provide transportation, facilities, and security support. The CSSE exercises operational control (OPCON) over the DP-G and is responsible for the logistics and security support.

Dental Platoon-Air

The DP-A consists of four wing detachments with one dental officer, two dental technicians, and one ADAL. It is attached to the MWSS and provides dental support to personnel assigned to the ACE. The ACE exercises OPCON over the DP-A and is responsible for the logistic and security support.

One DP-G and one DP-A support a MEB level force and provide emergency and essential non-emergency dental support to approximately 8-12,000 personnel using ADALs with enough supplies to support a defined patient stream for one month (estimated at 1,700 dental casualties).

Dental Section

The smallest module of dental support is a dental section (DS) and consists of one dental officer, one dental technician, and one ADAL. The DS is the dental component of the CSSD of the MAGTF. The CSSD exercises OPCON over the DS and is responsible for all logistic and security support. The DS provides emergency and essential nonemergency dental support to approximately 2,200 personnel using the ADAL to support a defined patient stream for one month (estimated at 175 dental casualties).

5004. Field Dentistry

Field dentistry requires employment of the same fundamental skills and standards of practice as employed in a garrison clinic. The limitations imposed by available equipment and the tactical situation requires flexibility, innovation, and expediency by the dentist and technician.

The primary objective of field dentistry is to provide dental treatment to the individual within the limitations of the tactical situation to rapidly return them to duty. Treatment may range from temporary symptomatic relief to more definitive dental care. In all cases, the dentist should maximize treatment in a single sitting to minimize return visits and lost duty time. This requirement places a great emphasis on the professional judgment of the practitioner and a need to reconcile patient needs with the tactical situation.

Dental patients will occasionally require casualty *evacuation* to higher levels of care. Depending on the tactical situation, the individual may require emergency treatment and expeditious *return to duty* with subsequent *referral* to higher levels of care when the tactical situation permits. When to *evacuate*, *return to duty*, and *refer* are matters of clinical judgment based on patient presentation.

Evacuation. Evacuation is the emergent transfer of a patient from a lower to a higher level of care using available evacuation assets and established evacuation procedures.

Return to Duty. This assumes that a patient is capable of performing the mission in an austere combat environment. Those individuals who are designated not fit for duty or who require pharmaceutical regimens that impair performance, should not be returned to duty.

Referral. Referral is the non-emergent transfer of a patient from a dental treatment facility (DTF) for follow-up treatment when the tactical situation permits.

5005. Field Dental Equipment

Marine Corps expeditionary dental systems are dental material sets designated the ADAL 662 (see Appendix C). The ADAL consists of the dental expeditionary field equipment, instruments, consumables, and the Dental Unit 2.

Every dental officer assigned to a deployed platform is assigned an ADAL. This equipment represents the latest in dental technology and is lightweight, compact, and rugged. It has limited power demand and is highly mobile. In addition to emergency dental care it has the capability to provide essential, nonemergency restorative, endodontic, periodontal, surgical and preventive care depending on the assigned mission and tactical conditions.

The ADAL 662 is the main equipment block that consists of the operating and treatment unit, field dental chair, dental hand pieces, operator and assistant stools, and assorted hand instruments and tools. It provides the capability to provide limited emergency dental care in a highly mobile environment. The ADAL contains an initial supply of consumables to treat 34 patient conditions for a given patient stream for 30 days.

The Dental Unit 2 is a subassembly of the ADAL that contains basic equipment and consumable supplies to provide emergency dental care for a limited number of dental conditions and patients. This emergency dental kit is contained in two MOLLE bags and contains the minimum of instruments and materials for simple extractions and expedient temporary restorations resulting from trauma or acute dental disease. The Dental Unit 2 is intended for use when the tactical situation precludes employment of the complete ADAL. For planning purposes the Dental Unit II is configured to provide emergency care to 20 patients for seven days.

Dental sets are configured according to the level of dental care they are expected to support. Logistic concerns (weight, cube, power requirements, and lift support) are important configuration considerations in forward battlespace patient care and a lesser consideration in those units to be employed further in the rear. Standardization of the material within the sets is consistent with Marine Corps policy and Class VIII resupply requirements.

5006. Patient Care Operations

Once the field DTF is established, patient care operations are accomplished similar to in garrison DTFs. However, environment and tactical situations may influence whether definitive or temporary emergency treatment can be provided. The objective is to expeditiously return Service members to duty by attending to their dental needs.

DTFs will use SOP developed by the parent dental battalion and other cognizant higher authority (HSS and CSS elements) that establish policy on such matters as patient flow, responsibilities, equipment operation and maintenance, safety directives, and other pertinent matters.

Deployment Log

Deployed DSS detachments will maintain pertinent deployment information to include--

- Deployment start and end dates.
- Name of deployed unit.
- Number of personnel in the unit.
- Number of casualty evacuations or days lost due to dental disease or injury.
- Patient information including the name and rank.
- Date and time of visit.
- Reason for the visit to include:
  - → Diagnosis
  - → Treatment rendered
  - → Whether it was emergency or essential, non-emergency care
  - → Whether treatment was for DNBI or battle injury.
- Daily non-emergent information to include:
  - → Equipment/supply issues
  - → Medical combat skills data such as involvement with triage, wound management, forensics, combat stress, etc
  - → Other data deemed important for that deployment

This log provides valuable information for unit after action reports and use by higher authority to validate manning, ADAL configuration, and training requirements.

Patient Dental Record

The dental treatment record is deployed with the unit when circumstances permit and is maintained by the DSS detachment. The nature of large operations makes records control difficult resulting in many lost records. For such operations, if time and resources permit, dental battalions may deploy summary dental records in lieu of the complete dental treatment record. A summary dental record consists of duplicates of the most recent health questionnaire, dental treatment entries from the last dental exam to the present, and the most recent bitewing and pantographic radiographs. The type and number of the summary dental record remains the discretion of the dental battalion commander. If a patient without a dental treatment record is treated, a temporary record is made and maintained by the DSS detachment. This temporary record consists of a health questionnaire, consent form and a Standard Form EZ 603-A. The temporary record is incorporated into the patient's permanent dental treatment record when it becomes available.

Unit After Action Report

At the completion of the exercise or deployment a unit after action report is prepared using the DTF, pertinent patient treatment, and deployment log data. This report is submitted through the chain of command according to applicable instructions. It is the primary source of information on the dental care provided to the supported unit and to improve the delivery of dental care to deployed units.

5007. Preventive Dentistry

Dental health is the absence of dental disease and is the ultimate goal in dentistry. The incidence of dental disease increases under deployment conditions. Stress, exhaustion, inadequate nutrition, and poor oral hygiene measures are factors that degrade dental health. The in garrison dental organization and deployed DSS use a range of dental treatment and preventive programs to eliminate oral conditions that decrease performance and absence from duty. Prior to deployment, deploying personnel are given priority appointments to treat all urgent dental treatment conditions. Dental prophylaxis and individual oral hygiene instruction are also provided to ensure every Marine has the knowledge and skills to maintain oral health. During deployment DSS provides ongoing dental treatment and preventive dentistry programs to identify and treat personnel at risk for dental disease.

Field Oral Hygiene Instruction

Deployable personnel should receive additional oral hygiene instruction specific to the field environment. Concepts covered include--

- Importance of oral hygiene to combat fitness.
- Use of fluoridated toothpaste.
- Alternative methods of hygiene in the absence of garrison-type facilities.
- Procedures on how to seek dental services while deployed.

Infection Control

Infection control is a critical requirement in a field environment. The demands for proper infection control in the field are frequently greater than in garrison due to undesirable environmental conditions. The current BUMEDINST 6600.10. *Dental Infection Control Program* series provides specific guidance and can be adapted to the field environment.

Infectious Waste Management

Proper handling and disposal of waste is required to protect the force and the environment and to fulfill agreements with the host nation (HN). In general terms, the unit generating the waste will insure proper collection and disposal. Assistance is normally available through the supporting engineer unit, the PM team or the local MTF.

Hazardous Waste

DSS normally generates small quantities of hazardous waste in the field environment that should be disposed of in a manner that minimizes environmental impact. Preventive medicine and engineer personnel can advise DSS on the proper disposal of waste.

Medical Waste

Medical waste such as blood and blood products and surgical waste are produced during dental procedures. Medical waste may be sterilized and disposed of along with general waste. Fluid wastes collected through oral evacuation apparatus should be disposed of along with human wastes. Contaminated needles and other sharp items requiring special handling should be stored in clearly marked, puncture-proof containers with a tight-fitting lid until disposal. Large quantities of medical waste should be collected in impervious containers if available or double plastic bags as an alternative. Containers must be clearly marked with the universal biological hazard symbol or labeled consistent with the unit SOP.

5008. Alternate Dental Service Support Roles

Frequently DSS is called upon to provide additional services in support of the OPLAN besides providing dental services to the deployed units.

DSS provides dental care to operating forces and other designated beneficiaries (civilian, indigenous population, detainees and EPW) in the AO. Priority for treatment is based on command directives, the patient's medical/dental condition, availability of resources, negotiated agreements, and applicable laws and conventions.

Dental civic action projects are generally associated with "nation assistance" but may also be requested in more conventional conflicts as part of the overall post-conflict civil affairs operations.

Alternate augmentation of medical treatment during mass casualty operations.

Post mortem and forensic identification of casualty remains is not doctrinally an HSS mission. However, dental personnel are uniquely qualified to support such operations when needed in the identification process.

Military animals, particularly working dogs, are used in the AO and are subject to dental injuries, specifically fractured teeth. Dental officers may be called upon to assist the Army veterinary staff in the restoration or treatment of these injuries.

5009. Dental Operations In Military Operations Other Than War

DSS assets have the potential to be important contributors during low intensity conflict operations. Their primary role is to provide dental support to facilitate mission accomplishment but can be used to conduct humanitarian and civic assistance (HCA) programs in concert with the HN.

As with any HCA program, dental operations contribute to the internal development and stability of the HN and combating political mobilization by opposing forces. Dental health programs help demonstrate to the local community an important measure of accomplishment and progress on the part of the HN. Means of improving the dental health of the population include--

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

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

- Community oral health education programs.

Dental care provided as part of an HCA operation is a highly effective, yet inexpensive means of producing an immediate impact on a target population. Unlike many medical ailments that may take days or months to resolve, permanent relief from the pain caused by dental disease can be achieved quickly. Simple dental treatment frequently conveys immediate goodwill through the aid provided to the HN population. Regardless of the level of treatment provided, oral health education should be an integral part of the overall program.

DSS is capable of conducting HCA operations independently or in concert with other health care assets. Dental personnel can also augment nonmedical units, such as engineers, and are particularly effective in augmenting the HCA operations of FSSG units. Dental operations in low intensity conflicts require a high degree of flexibility and initiative. The senior dental officer present must be prepared to advise the command surgeon and the operational commander as to the best possible use of available dental assets. The overriding consideration in the planning of dental HCA operations is to ensure that operations are conducted in concert with the HN and is consistent with the HN's dental health and security objectives.

5010. Dental Support for Peacekeeping Operations

DSS may be requested to provide dental care in peacekeeping operations to the peacekeeping force to include as a minimum emergency care and when time and resources permit sustaining care. Conduct of dental HCA operations must be consistent with the peacekeeping charter and approved by the command authority.

5011. Dental Support Of Medical Treatment Facilities During A Mass Casualty

When a dental unit is collocated with an MTF (surgical company, STP), collective use of the DSS in mass casualty situations may be advantageous. Austere medical resources require maximum use of dental assets in preparing for mass casualty situations. When additional treatment space is required, use of the adjacent DTF is incorporated into the collective utilization option. The DSS T/E can be used to support the medical augmentation roles, particularly when

treatment provided in the DTF is limited to minimal-category casualties. The following assistance may be provided--

Shelter - The DTF offers a climate-controlled shelter suitable for the conduct of patient treatment. This benefit significantly increases when the DTF is set up in or near the MTF complex.

Dental Equipment Sets - The ADAL contains materials and instruments that can be used to perform minor surgical procedures such as anesthetic, scalpels, forceps, hemostats, suture material, and wire ligature. DTFs are equipped with simple medical and resuscitative equipment that can provide basic cardio-pulmonary resuscitation and other common medical emergencies.

Planning and Coordination - The DTF commander upon arrival at a site collocated with an MTF should coordinate with the MTF commander on a plan for use of the DTF's resources in the event the MTF is overwhelmed. Once a plan is established, it should be rehearsed at the earliest opportunity.

Chapter 6
Planning

Comprehensive planning is essential for any operation to succeed. The mechanics of HSS planning for MAGTF operations essentially follow the same course as planning processes for any other part of operational support. The mission assigned; commander's analysis and interpretation of the mission, and planning guidance issued by the commander to his staff form the parameters for HSS planning.

HSS planning must be continuous, directed toward accomplishing missions and tasks on a day-to-day basis, and must be flexible to a degree that will accommodate variations that may be imposed. HSS planning must be accomplished with overall operational and logistic support planning. Development of an efficient plan for a MAGTF operation depends on the combined and coordinated efforts of all involved commanders and their staffs. Since MAGTF operations are inherently complex, plans at every level must provide for support that is complete, functional, and flexible to the maximum degree consistent with available resources. A clear understanding of staff planning is based on knowledge of the characteristics, methods, and objectives of the overall operational planning process.

6001. Marine Corps Planning Process

The Marine Corps Planning Process establishes procedures for analyzing a mission, developing and wargaming courses of action (COAs) against the threat, comparing friendly COAs against the commander's criteria and each other, selecting a COA, preparing an OPORD or OPLAN for execution, and transitioning the OPORD or OPLAN to those tasked with its execution. The Marine Corps Planning Process organizes these procedures into six manageable, logical steps. These steps provide the commander and his staff, at all levels, a means to organize their planning activities, to transmit plans to subordinates and subordinate commands, and to share a common understanding of the mission and commander's intent. For a more thorough review of the Marine Corps Planning Process see MCWP 5-1.

6002. HSS Planning Responsibilities Unique to Amphibious Operations

Because their plans are mutually supporting, detailed, coordinated, and parallel planning is required between ESG and LF surgeons. Both the ESG and LF surgeons have specific HSS planning responsibilities. See JP 3-02, *Joint Doctrine for Amphibious Operations*. ESG and LF surgeons and their staffs should be familiar with these responsibilities.

Expeditionary Strike Group Surgeon

Provides HSS for all embarked personnel between point of embarkation and the objective area.

Provides HSS personnel, supplies, and equipment for all naval units based ashore and not attached to the LF.

Evacuates casualties from the beach to CRTS and casualty holding afloat within the AOA.

Coordinates for evacuation by ship or air from the AOA to medical facilities outside of the objective area.

Coordinates for air transport of Class VIII supplies and equipment.

Forms, in conjunction with the LF commander, evacuation policy for the operation.

Promulgates HSS requirements and standards for the civilian population in the AOA, when higher authority does not prescribe these.

Forms the task force evacuation net.

Landing Force Surgeon

Landing force HSS plans are based upon and support the plans and policies of the LF. They must also complement the HSS plans of the TF. The LF surgeon is responsible for the following, and prepares plans accordingly.

- Providing HSS for the LF before embarkation.

- Assisting ships' medical departments in providing medical care for embarked LF personnel.

- Evacuating casualties from within the LF area to beach evacuation facilities.

- Providing HSS care for personnel ashore in the objective area, for whom care is not otherwise provided.

- Making recommendations to ESG commander concerning the evacuation policy for the operation.

- Identifying and requesting external HSS to fulfill requirements that are beyond the capability of LF HSS elements.

- Determining requirements for HSS supply and resupply for LF HSS units.

- Establishing facilities for emergency treatment and casualty holding ashore.

- Ensuring continuity of the task force evacuation net to coordinate the movement of casualties after control passes to LF commander.

6003. Sequence of Command and Staff Planning for Health Service Support

HSS planning begins with the issuance of the commander's planning guidance to his staff. The commander's guidance includes his analysis of the mission, factors to be considered, and COAs to be analyzed. The MAGTF surgeon participates in the COA development and wargaming of

each COA and prepares a comprehensive estimate of HSS factors that may affect accomplishment of the mission, in light of each proposed COA. The HSS estimate provides the commander with a portion of the information he must consider in deciding the COA for the operation. After considering and comparing each COA against established criteria and against each other then the commander selects the COA that best accomplishes the mission. HSS planning continues in detail after the commander announces his decision and concept of operations. Much of the material included in the HSS plan will have been developed prior to preparation of the medical estimate. This material should be reviewed, refined, and updated as necessary.

Medical Estimate

The medical estimate requires significant research, along with concurrent, parallel, and detailed planning. Effective planning cannot be conducted in a vacuum. The medical estimate serves four purposes--

- Assesses medical capabilities and limitations.
- Determines if medical capabilities are sufficient to support the proposed COAs.
- Determines which COA is most desirable from a medical standpoint.
- Determines what measures the commander and his staff must take to overcome limiting factors.

The actual format used will be directed by the cognizant G-3/S-3 based on guidance from higher headquarters. It is imperative that the staff estimates and estimates of supportability be reviewed throughout the planning process including the mission analysis, COA development, COA wargame, and the COA decision. See MCWP 5-1 for further details in estimate development.

Decisions/Recommendations

The MAGTF surgeon prepares an HSS estimate on the proposed COA that provides analysis and identifies the advantages and disadvantages of each, from a medical view. Based on his analysis, he recommends a COA.

HSS Concept of Operations

The commander will consider the results of wargaming, examine the staff estimates, and determine a desired COA. At this point, the MAGTF surgeon develops an HSS plan and concept of operations to support the commander's decision. This plan contains information and instructions outlining HSS support requirements for the MAGTF during the operation. It is most often issued as annex Q (Medical Services) or in annex P (Host-Nation Support) (if working in a joint/combined operation), but may vary depending on guidance provided by higher authority.

6004. Medical Services Annex

The concept of operations for health services is in annex Q (Medical Services) of the OPLAN. The medical services annex contains information on HSS support requirements during an operation, including deployment planning, and external support requirements. It is directive in

nature; its purpose is to direct HSS efforts during the operation. It compiles HSS requirements from sources external to the MAGTF, and addresses elements of support requiring close coordination with other Services, Joint Chiefs of Staff, DOD, or HNs. It sets policy, specific tasks and responsibilities, and directs the employment of medical assets organic to the GCE, ACE, and CSSE of the MAGTF from embarkation to D-day and after. Annex Q is normally prepared at MEF, MEB, and MEU levels. The completed medical services annex should--

State the HSS situation.

State the evacuation policy.

Clearly delineate organization, responsibilities, and employment of HSS system elements, with emphasis on shifts in responsibilities during the operation and on measures necessary to ensure coordinated action by all HSS elements of the task force.

Project time phased bed requirements, to include planned locations of facilities available to provide support and casualty overload plans.

Provide plans on accessing HSS available from sources external to the MAGTF.

Provide plans for HSS in conjunction with evacuation of casualties from AOA.

Address HSS supply, including prescribed load, replenishment of supplies and exchange of equipment.

Address procedures and responsibilities for recordkeeping and casualty reporting.

Address provisions for HSS while afloat.

Address procedures for obtaining medical intelligence.

Identify EH threats. Evaluate and plan appropriate responses to environmental and occupational health stressors.

Ensure necessary EH controls are planned for and carried out for food procurement, potable water, waste disposal, general field sanitation, personal hygiene, vector control, agricultural washdowns and other necessary public health measures.

Address PM; NBC warfare medicine; dental; veterinary medicine; hygiene; and sanitation.

Address procedures for obtaining and distributing blood and blood products.

Address responsibilities of US Forces in rendering medical care to allied forces, EPWs, and indigenous civilians.

Address available HNS and types.

6005. Transition: Phases of Expeditionary Operation

Expeditionary operations include the full spectrum of Marine Corps operations including amphibious operations, MPF operations, and the deployment of an air contingency MAGTF. These operations can be divided into five phases--

Predeployment
Deployment
Entry
Enabling and Decisive actions
Redeployment

Predeployment

Predeployment actions include the organization of the deployment to ensure that forces arrive in the objective area in a logical sequence, at the right time, and with the correct equipment and sustainment to support the concept of operation. Regardless of the deployment mode, predeployment preparation and deployment are complex undertakings that require the accomplishment of numerous tasks. In crisis response, the time available to accomplish these tasks is limited. Some HSS predeployment considerations are--

- Conduct predeployment health screening.

- HSS components are properly staffed and trained to support the concept of operation.

- HSS equipment and supplies are in sufficient repair and quantity for the mission.

- Responsive resupply mechanisms are in place.

- Liaison with all MAGTF, joint, and coalition components is established.

- Immunizations and medicines for endemic diseases are procured and/or administered.

- HNS and availability of nongovernmental organizations and international governmental organizations.

- Train individuals through unit training in personal hygiene and field sanitation.

- Ensure predeployment health threat briefs and health screening questionnaires are completed.

- Assist medical units in completing predeployment requirements (specifically immunizations), and make preparations for embarkation of PM equipment.

Deployment

Deployment planning and execution are challenges for even the most experienced and skilled logisticians. Transportation modes vary depending on the size, purpose, and duration of deployment. Deployment of a MEF requires the use of all modes of transportation. This includes--

- Military or commercial ground transportation.

- Amphibious or commercial ships.

- Air Mobility Command or commercial charter airlift for personnel, supplies, and equipment.

Some HSS predeployment considerations are--

- Ensure that health service personnel organic to the MAGTF embark with their units.

- To the maximum degree possible, BAS, STP, and forward resuscitative surgery equipment and supplies should be mobile loaded.

- For amphibious operations HSS personnel and class VIII material should be spread loaded among ships of the ESG, to the maximum degree practicable. However, this should not be accomplished at the expense of separating personnel from the equipment they will be using ashore. It is important that personnel of HSS elements embark on vessels carrying their parent unit's equipment and supplies.

- Ensure all medical personnel, equipment, and supplies are registered on the Joint Operation Planning and Execution System time-phased force and deployment data.

- Spread load medical personnel and supplies during deployment to ensure complete coverage.

- Disseminate military significant PM information to commanders and HSS units in the theater of operation.

- Conduct pre-site surveys and campsite selection recommendations.

- Provide technical oversight on food service operations and procurement.

- Provide oversight and testing at water points and bulk water storage areas, ice manufacturing process and bottled water plants.

- Conduct pest surveillance and control.

- Maintain EH and pest control equipment.

- Conduct weekly DNBI surveillance and report findings through the proper chain of command. Implement necessary countermeasures to reduce or eliminate DNBI threats.

Entry

Entry refers to the initial introduction of forces onto foreign soil where no prior presence exists. During this phase, expeditionary forces are often at greatest risk, and for this reason, the introduction of forces is often a complicated military evolution. The most difficult type of entry is forcible entry, which refers to the initial introduction of forces into a hostile environment via combat in the face of active resistance. Not all expeditionary operations require forcible entry, although it is unavoidable in the absence of any secure point of entry. Many expeditionary operations involve the introduction of forces into a permissive environment or an environment that has not yet turned hostile. There are situations in which a regional presence, not actual entry, may accomplish the mission, although the perceived willingness and capability to introduce forces remains fundamental.

Amphibious Operations. An amphibious operation is a military operation launched from the sea by an amphibious force, embarked in ships or craft with the primary purpose of introducing a Landing force ashore to accomplish the assigned mission. The five phases of an amphibious operation are planning, embarkation, rehearsal, movement, and action. Sound planning provides a basis for successful execution. HSS personnel should use this opportunity to-

Test the adequacy of HSS plans.

Test medical evacuation nets and medical command and control nets.

Check individual readiness.

Ensure that HSS personnel in all units are familiar with the HSS plans.

Maritime Pre-positioning Force Operations. An MPF operation is the rapid deployment and assembly of a MAGTF in a secure area using a combination of strategic airlift, tactical self-deploying aircraft, and forward-deployed MPS. MPF operations are a strategic deployment option that is global in nature, naval in character, and suitable for employment in a variety of circumstances. The essential strategic contribution of MPF operations is the mobility and flexibility that allows the concentration of forces quickly in a designated area.

Amphibious and MPF operations are complimentary capabilities; however, one is not an equivalent substitute for the other. Amphibious operations provide the means for forcible entry, while MPF operations permit rapid deployment into permissive areas where force introduction is essentially unopposed and is expected to remain so through the arrival and assembly phase. Amphibious operations can be used in the same environment as MPF operations, but the reverse is not true.

MPF operations involve airlifting MAGTF and Navy support element personnel into a HN arrival and assembly area to join with equipment and supplies prepositioned aboard MPSs. MPF includes the combination of prepositioned and airlifted materiel of a MEF with 30 days sustainment. Smaller MAGTFs may be sustained for a greater or lesser time depending on the

size of the force, the number of MPS involved, and other variables.

HSS Considerations

- Receiving, preparing, and distributing medical supplies and equipment.

- Providing Level I care upon landing.

- Identifying HN and inter-Service support.

- Coordinate the transport of personnel, equipment, and supplies.

- Inventory equipment and supplies for serviceability.

- Identify resupply sources.

Air Contingency MAGTF Operations. Air contingency MAGTF operations are task-organized, air-deployable forces. An air contingency MAGTF consists of lead elements ready to deploy within hours of notification. These elements deploy to a secure area for subsequent employment. The MAGTF is task-organized to meet the mission, the threat, and the available airlift. Air contingency MAGTFs can be used as part of the fly-in echelon of an MPF, as reinforcement for an AF, or as the lead element of a MEF.

Enabling and Decisive Actions

Enabling actions refer to those preparatory actions taken by the expeditionary force after entry and establishment of the mission. Follow-on forces typically follow initial forces, which have undertaken enabling actions designed to set the stage for the eventual decisive actions. Enabling actions may include seizing a port, airfield, or other lodgment to facilitate the secure introduction of follow-on forces. In cases of disaster or disruption, enabling actions usually involve the initial restoration of order or stability. In the case of open warfare, enabling actions may involve operations to halt or delay an enemy advance, to attack certain enemy military capabilities, or to capture key terrain necessary for the conduct of decisive operations.

Decisive actions are those actions intended to create conditions that will accomplish the mission. In disasters, decisive actions include relief operations. In disruptions, they often include peacemaking and peacekeeping until local government control can be re-established. In conflict, they usually involve the military defeat of the enemy's fighting forces.

Redeployment

Because expeditions are by definition temporary, all expeditionary operations involve a departure of the expeditionary force or a transition to a permanent presence of some sort. Redeployment may be required by a change of mission, the assignment of additional missions within the theater or in another theater, or return to the base of origin. The MAGTF's organic sustainment and ability to quickly reorganize and reconstitute without having to first return to its

home base or await establishment of a theater logistics infrastructure prior to employment make it unique.

Sustainment. The MAGTF's versatility stems from its naval, expeditionary character, which enables it to not only respond quickly to contingencies, but also to shift rapidly between missions in littoral regions of the world. The MAGTF has this capability even in the absence of a logistics infrastructure ashore and before resupply channels from CONUS have been established. The MAGTF's organic sustainment capability makes it capable of independent operations for periods up to 60 days without resupply. Since the MAGTF is a lighter force, capable of operating with a smaller footprint, within an austere environment, it is more easily sustained, places less demand on lift, and simplifies the problems associated with redeployment.

Reconstitution. A MAGTF's endurance, based on its accompanying sustainment, and its ability to maneuver at sea make it ideally suited for reconstitution and redeployment out of theater within the limits of accompanying supplies. Commanders must ensure that requisitions for replenishment are submitted commensurate with anticipated lead times for delivery. Reconstitution in theater requires resupply to rebuild baseline levels of sustainment.

6006. Health Service Support Planning Considerations

Evaluation of World War II, Korea, Vietnam, and Operation Desert Storm data has led to development of the following maxims concerning combat medical support. They are offered for their potential usefulness to personnel tasked with HSS planning. Medical planners must be included throughout the entire planning process, including current and future operations planning, to ensure the development of effective and responsive HSS.

Commanders at all levels are responsible for providing adequate and proper health care for their troops.

HSS plans can be effectively executed only if they are based upon realistic HSS capabilities.

Health care for a patient must be continuous from the onset of injury or disease through the levels of care to the facility capable of providing final treatment and disposition.

Casualty sorting and triage must occur at each medical facility in the chain of evacuation. A patient is triaged at a receiving medical facility, and moved rearward only to the point where he can receive the definitive care demanded by his condition.

HSS units of the Marine operating forces must retain the ability for rapid movement.

HSS units must be capable of being dispersed, for protection of assets, and to render the greatest service to the greatest number.

Plans must be flexible to a degree that will ensure the mission can be accomplished despite changes in the tactical situation.

Most casualties will occur within infantry regiments. Medical treatment and evacuation facilities must be situated accordingly.

Increasing the evacuation policy increases requirements for HSS in the AOA, but reduces requirements for casualty evacuation transportation and personnel replacements.

Prompt triage, stabilization, and evacuation of casualties will result in increased numbers of lives saved and wounded returned to duty. It will also decrease numbers of noneffective days and reduce functional disability.

The need for evacuation decreases when medical facilities are located in close proximity to forces in contact with the enemy.

When the decision is made that a member cannot be returned to duty within the limits of the evacuation policy, he should be evacuated from the theater as quickly as his condition permits.

Maintaining a continuous awareness of current DNBI rates and trends through disease surveillance at all levels is critical to effective prevention programs.

Whenever possible use HNS.

Chapter 7
Supply

HSS supply encompasses the functions of procurement, initial issue, material management, resupply and disposition of material necessary to support medical and dental elements organic to the Marine operating forces. Requisitions for Class VIIIA (consumables and equipment) material follow the same channels as other classes of supply. Guidance for planning and procurement of Class VIIIB (blood products) is found in Navy medical publication (NAVMED) P-6530, *Joint Blood Program Handbook*. **Class VIIIA supply must not burden HSS facilities with excess material on the battlefield. Material managers must provide Class VIIIA support that will enhance HSS unit's ability to establish, displace, and rapidly relocate.**

7001. Allowances and Source of Supply

Medical and dental material support of the Marine Corps is the responsibility of the MAGTF commander and is provided in three general forms--

- T/E
- AMAL/ADALs
- Normal replenishment supply support

A unit's T/E includes items necessary for basic support of the organization. Examples of this type of equipment include tentage, vehicles, tools, communications equipment, NBC gear, specialized clothing, office equipment, etc. AMAL/ADALs are specialized equipment and supplies allocated to medical and dental elements and cover capability for trauma management; resuscitative surgery; expeditionary laboratory; pharmacy; x-ray; dental; PM; NBC treatment; patient holding; sick call; and HSS test and repair systems.

The total T/E and capability sets are designed to support the MEF for an estimated 60 days of combat. The MAGTF commander is responsible for ensuring that HSS capabilities are tailored to support the OPLAN. The AMAL/ADALs must be allocated to support specific OPLAN requirements. Funding for AMAL/ADALs above the authorized level is the budgetary responsibility of the MAGTF commander authorizing the increased allowance.

7002. Initial Class VIIIA Combat Supply

All HSS elements of a MAGTF mount out with equipment and Class VIIIA consumable items sufficient for a projected 15 days (minimum) of combat support operations. Class VIIIA equipment and consumables sufficient for 3 to 5 days are initially brought ashore by the personnel of unit medical and evacuation sections of the AE. Vehicles, including ambulances, dedicated to HSS elements are combat loaded during mount out and used to bring initial Class VIIIA equipment and supplies ashore. Equipment and supplies remaining afloat are phased ashore as scheduled or on demand with later waves of the AE.

HSS supply channels in combat are illustrated in figure 7-1. Rapid replenishment of high use critical items in the initial stages of the assault is accomplished by prepackaging these items into

specialized rapid resupply blocks. As the need occurs for such specialized supplies, supported units submit requests through their landed unit supply section to the tactical logistics group. In order for this system to be effective, requirements for specialized rapid resupply blocks must be identified and the materials packaged prior to initial embarkation.

Air delivery of emergency medical supplies can be used where and when tactically supportable.

HSS units mobile load as much of their equipment and supplies as possible. In addition to organic motor transport, HSS units may require additional motor transport support. This requirement should be identified and requested in the planning process.

Class VIIIA resupply and repair capabilities carried by the CSSE are landed during the general off-load (the phase of an amphibious operation after scheduled and nonscheduled waves have gone ashore) phase of an operation. Any supplies not issued should be available during the early stage of an operation.

Elements of the MedLogCo, Supply Battalion, FSSG, are attached to the supply section of the CSSE to provide Class VIIIA resupply and, eventually, limited medical repair capabilities to all HSS units of the MAGTF.

Supporting HSS units can, on an emergency basis, provide limited medical resupply to other HSS units of the MAGTF. This is in addition to the equipment exchange program.

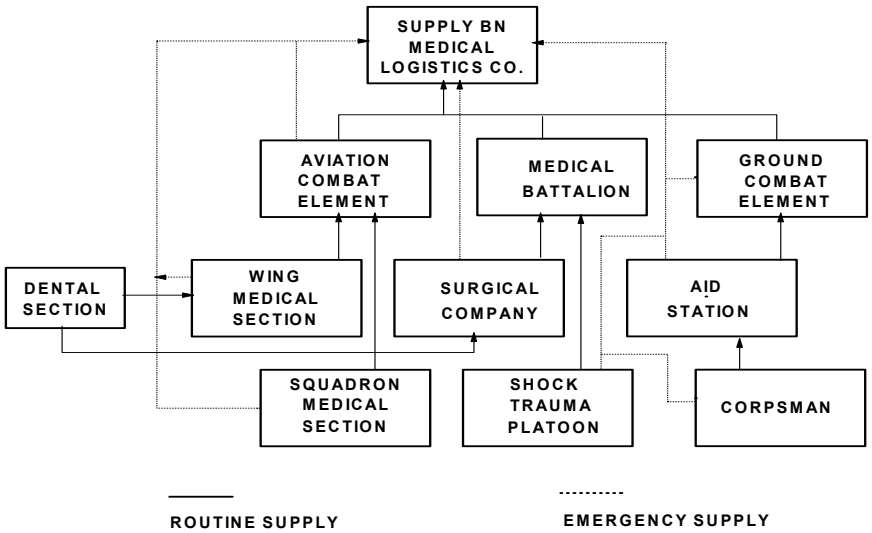

Figure 7-1. Combat HSS Supply Channels.

7003. Individual HSS Equipment

All hospital corpsmen assigned to the Marine operating forces are assigned a complete first aid kit (MOLLE bag) as part of their field gear. These kits may be held by the unit organic supply

section and issued on an as needed basis. The organic supply section is responsible for ensuring that contents of the unit-1 are maintained in good condition, and that medications have not exceeded their shelf life. Dental officers will be issued a unit II, maintained by medical logistics company.

7004. Routine Resupply

Resupply under all circumstances is a command responsibility. HSS personnel needing resupply will forward requirements to their unit's supply section. The supply section will, in turn, pass the requirement to the supported activities supply system (SASSY) management unit (SMU), or if deployed, the supply section of the CSSE. It is the responsibility of the SMU/CSSE to obtain the required material. In some cases, HSS personnel may be of assistance to the SMU/CSSE supply officer by providing alternatives to either the material or supply sources, such as different dosages or medical facilities of other services in or near the AO.

7005. Combat Resupply

During embarkation planning, the MAGTF commander will determine the number and type of AMAL/ADALs required to support the initial assault phase of the planned operation. Additional Class VIIIA equipment and consumable material are positioned for mount out with the MedLogCo detachment within the supply section of the CSSE. After the consumable AMAL/ADALs modules are issued and expended, or when directed, resupply is normally by line item requisition from the supporting CSSE.

7006. Patient Movement Items and Equipment Exchange

Under the patient movement items (PMIs) equipment exchange program patients will be evacuated with all available medical material items and chemical warfare protective gear in accordance with established theater operations policy. To ensure the necessary levels of PMIs are on hand, equipment exchange must be practiced at all levels in the chain of evacuation. Its value in a combat environment cannot be over stressed. Blankets, litters, casualty evacuation bags, splints and like items delivered with an incoming patient must be immediately replaced by units receiving patients. Treatment facilities in the chain of evacuation are able to maintain adequate number of such items only through an exchange system. Cognizant commanders should apply prompt corrective action at any point where the exchange system is failing.

Medical planners involved with patient evacuation systems of other Services should ensure that other service medical planners coordinate to provide initial and follow-on PMIs to support equipment exchange. Prior liaison is essential in ensuring that incoming patient evacuation transportation is adequately equipped to handle the casualties and make PMI exchanges. In joint operations, a theater equipment pool may be established by the joint force commander to reduce medical equipment shortfalls within theater. The theater equipment pool and HSS units work to resupply and or refurbish critical PMIs so they are available to meet patient movement requirements.

7007. Disposal of Materials

Disposal of soiled, contaminated, or other unusable Class VIIIA material must be accomplished with due consideration for the safety of US forces and local civilian populations. Disposal must also be in compliance with local and international laws, ordinances, or customs governing such disposal whenever operations allow. When disposal takes place in the US or its territories, Class VIIIA disposal is coordinated with the local office of the Defense Reutilization Marketing Office. Peacetime disposal overseas is coordinated under the guidance of the Defense Reutilization Marketing Office or CSSE.

When the tactical situation permits, during combat operations, the safest method of field disposal is burning, followed by deep burial (over 6 feet). The burial site should be a safe distance from watersheds and populated areas. Responsibility for neutralization and disposal of clothing, equipment, and dressings removed during NBC decontamination processes resides with the major subordinate command NBC officer.

Disposal of body parts and tissues obtained during operative or diagnostic procedures is, preferably, accomplished in the same manner as used by local medical facilities or instructions provided by the major subordinate commander J-5/G-5 section. Alternative disposal by burning or deep burial requires prior authorization and specific guidance of the major subordinate commander J-5/G-5 section. Prior coordination with local health authorities and religious leaders should be accomplished when possible.

7008. Protection of Medical Supplies

Medical material and supplies are protected under the Law of Land Warfare and the Geneva Conventions. However, when medical material and supplies are mixed with combat supplies, they lose the protection afforded by these covenants. Marking medical material and supply storage areas with the Red Cross of the Geneva Conventions is a tactical decision to be made by the area commander. Geneva Conventions and the Law of Land Warfare prohibit destroying medical material and supplies that must be abandoned in a retrograde movement occasioned by enemy action or other tactical consideration.

NOTE: Never collocate Class VIII and Class V supplies because it will jeopardize the protective status of medical materiel under the Hague and Geneva Conventions.

7009. Single Integrated Medical Logistics Manager

When two or more Services are operating within the combatant commander's area of responsibility, a Service may be designated as the single integrated medical logistics manager (SIMLM). 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 theater of operations including, on an emergency basis, United States Navy ships for common-use items. By exercising directive authority over the health service logistic support arena for the accomplishment of assigned missions, the combatant commander can centralize control, reduce duplication of services, and provide the support in a more economical and efficient manner. Further, it is the combatant commander's responsibility to

ensure coordination occurs among the Services' health service logistics systems so that critical health service logistics resources are properly allocated, and that medical materiel requirements are accurately stated. The SIMLM assumes responsibility for planning and executing the health service logistic support mission for common-use medical items in that AOR.

In the European and Korean theaters, the US Army has been designated as the SIMLM. Although the US Army may be designated as the SIMLM in future missions because of a larger commitment of ground forces, each Service should devise plans in the event they are designated the SIMLM.

Service components are required to resupply their respective units until the SIMLM is established and operational. This will usually occur no earlier than D+60.

Chapter 8
Casualty Reporting

The G-1/S-1 section is responsible for submitting prompt, accurate, and complete casualty reports to higher headquarters. In combat operations, unit corpsmen and medical treatment facilities are primary sources of individual casualty data. Personnel must be thoroughly familiar with casualty reporting procedures. Casualty reporting is addressed in Marine Corps order (MCO) P3040.4, *Marine Corps Casualty Procedure Manual (MARCORCASPROCMAN)* and other local directives in the 3040 series. The system described in these directives is essentially one in which personnel losses, regardless of cause, are reported through the chain of command to a central location. Figure 8-1 illustrates the flow of casualty information from medical personnel and medical treatment facilities upward through the chain of command.

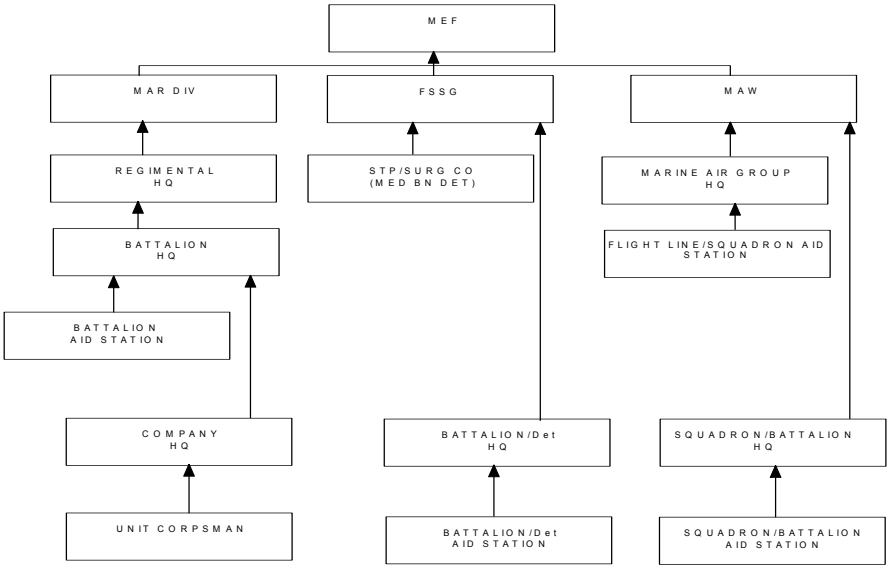

Figure 8-1. Casualty Reporting in the MEF.

8001. US Field Medical Card (DD Form 1380)

Hospital corpsmen at the unit level usually provide the first written information on a casualty through the use of a US Field Medical Card (FMC) (DD Form 1380). See figure 8-2. It is actually a casualty tag printed in a set that provides a hardened original copy for attaching to the casualty (whether wounded or deceased). A carbon copy is retained by the hospital corpsman rendering initial treatment. Hospital corpsmen must render initial casualty treatment promptly and deliver copies of FMCs to the unit commander or his representative. Unit commanders need these documents to carry out casualty reporting responsibilities through their chain of command, as required by the MARCORCASPROCMAN.

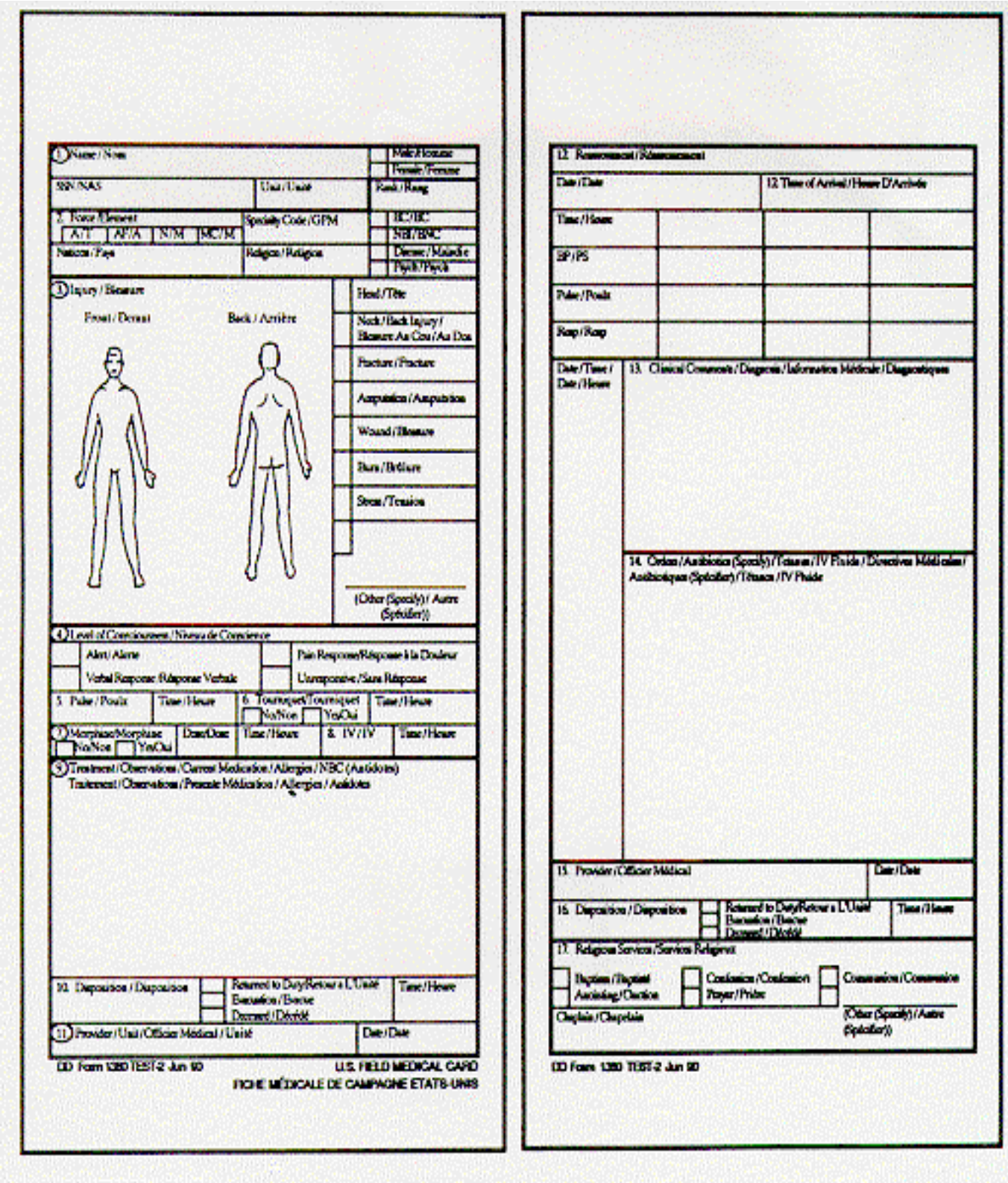

Figure 8-2. US Field Medical Card (DD Form 1380).

When initial casualty treatment is rendered at a BAS or other medical treatment facility, an FMC is initiated and a copy forwarded through the medical treatment facility's chain of command. Regardless of whether a casualty is received in a medical treatment facility with or without a FMC, the receiving facility will compile a casualty list and forward the list upward through the facility's chain of command. The casualty list will be prepared no less than once daily and should show each casualty received, held, evacuated or returned to duty during the reporting period. Minimum information required on each casualty is-

Name.
Social Security number.
Rank.
Unit.
Brief description of wound/injury/disease.
Actual or expected disposition.

Training and planning for operations should include instructions in casualty reporting procedures for all MAGTF elements.

The DD Form 1380 establishes patient accountability and provides a means to document assessment of condition and treatment rendered by HSS personnel. The FMC is to be used as an emergency medical tag for all casualties at the time they are initially treated in the field or field medical facility. Completion of a FMC initiates an important medical record that will follow the casualty through the levels of care. At the same time, it is an administrative document that may contain the most dependable information a commanding officer may have regarding a casualty in his unit. Our NATO allies, by formal agreement, use FMCs containing the same essential information as recorded on the US card. Medical personnel must be trained in the preparation and use of this form. The following general guidelines apply.

Upon rendering treatment, HSS personnel tag all casualties with DD Form 1380.

Deceased members are also tagged with the DD Form 1380.

Careful preparation of each DD Form 1380 is essential and special attention must be given to recording time, medications, and treatment administered.

The DD Form 1380 remains attached to the casualty until he reaches his ultimate destination in the chain of evacuation, or until a clinical record has been established.

Treatment administered by different levels of medical care is recorded on the previously attached DD Form 1380.

If all space on the original card has been utilized, an additional card is prepared and attached to the casualty. The original DD Form 1380 is **NOT** removed when an additional card (s) is attached.

Upon the establishment of a clinical record for the casualty, the DD Form 1380 becomes part of

the clinical record.

If the patient requires decontamination, the contaminated DD Form 1380 is transcribed onto a clean form.

8002. Identification Tags (Dog Tags)

Identification tags are essential to casualty identification and recording.

Each member is issued a chain and two tags to be worn at all times. The tags contain the member's name, Social Security number, blood type, service component, religion or sect, and protective mask size.

The member and his unit are jointly responsible for ensuring that all information is current and accurate. Information on medical warning tags is contained in Navy Medical Command (NAVMEDCOM) Instruction 6150.29 series.

Both identification tags remain with a casualty at all times, except when remains are buried in the combat area. One tag is attached to the grave marker; the other tag stays with the deceased. JP 4-06, *Joint Tactics, Techniques, and Procedures for Mortuary Affairs in Joint Operations*, provides detailed procedures for handling deceased personnel.

8003. Automated Medical Record Technology

Emerging technology will provide new computer systems like the Medical Documentation System that will interface with a small multitechnology card that has micro-computer chips built into the card. This technology will give the care provider the advantage of an electronic read/write capability to record care given to the patient at each level of care given. This type of technology will enhance combat casualty care and patient locating by interfacing with much larger command and control systems being developed to track patient movement, logistics requirements, and treatment record management.

Chapter 9
Nuclear, Biological, and Chemical Defense

Given the proliferation of NBC weapons, all military personnel must be prepared to operate in a contaminated environment. Likewise, HSS personnel must also be prepared to provide patient care in an NBC environment. Because of potential evacuation delays due to the requirement to decontaminate patients and transportation assets, first aid and Level I care becomes even more critical. Given that the staffing of HSS units is based on conventional warfare requirements, these units will be taxed to provide effective HSS.

NBC actions cause high casualty rates, materiel losses, obstacles to maneuver, and contamination. Mission-oriented protective posture (MOPP) levels 3 and 4 result in increased body heat buildup, reduce mobility, and degrade visual, touch, and hearing senses, ultimately degrading unit effectiveness.

Contamination is a major problem in providing HSS in an NBC environment. To maximize the unit's survival and effectiveness, HSS leaders must take action to avoid NBC contamination. Maximum use must be made of—

- Contamination avoidance.
- Alarm and detection equipment and unit dispersion.
- Overhead shelters, shielding materials, and protective covers.
- Collective protection shelters.
- Chemical agent resistant coatings.

On the contaminated battlefield, the focus is on keeping the Marine in the battle. Effective and efficient triage, emergency treatment, decontamination, and contamination control in the operational area save lives, assure prompt evacuation, and maximize the RTD rate.

9001. Nuclear Environment

The HSS unit must continue its support mission in a nuclear environment, to the maximum extent possible. To continue their support role, they must prepare protective shelters. Well-constructed foxholes with overhead cover and expedient shelters (reinforced concrete structures, basements, railroad tunnels, or trenches) provide good protection from nuclear attacks. Armored vehicles also provide protection against both the blast and radiation effects of nuclear weapons. Casualties generated in a nuclear attack will likely suffer multiple injuries (combination of blast, thermal, and radiation injuries) that will complicate HSS requirements. Nuclear radiation casualties fall into three categories--

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

• The externally contaminated casualty has radioactive dust and debris on his clothing, skin, or hair. He presents a "housekeeping" problem to the MTF, similar to the lice-infested patient

arriving at a peacetime MTF. However, this contamination may present a threat to medical personnel. The externally contaminated casualty is decontaminated at the earliest time consistent with required medical care. Lifesaving care is always rendered, when necessary, before decontamination.

• The internally contaminated casualty is one that has ingested or inhaled radioactive materials, or radioactive material has entered the body through an open wound. The radioactive material continues to irradiate the casualty internally until radioactive decay and biological elimination removes the radioactive isotope. Attending medical personnel are shielded, to some degree, by the patient's body. Inhalation, ingestion, or injection of quantities of radioactive material sufficient to present a threat to medical care providers is highly unlikely.

9002. Biological Environment

A biological attack (such as the enemy use of bomblets, rockets, spray or aerosol dispersal, release of arthropod vectors, and terrorist or insurgent contamination of food and water) may be difficult to recognize because frequently it does not have an immediate effect on exposed personnel. Medical personnel must monitor for biological warfare indicators such as--

• Increases in disease incidence or fatality rates.
• Sudden presentation of an exotic disease.
• Other sequential epidemiological events, especially when presented in lines of communications.

Passive defensive measures (such as immunizations, proper personal hygiene, physical conditioning, using arthropod repellents, wearing protective mask, and strict adherence to field sanitation measures) will mitigate the effects of most biological intrusions.

The medical commander must enforce contamination control to prevent injury to medical personnel and to preserve his facility. Incoming vehicles and patients must be surveyed for contamination. Ventilation systems in medical treatment facilities (without the collective proactive shelter) must be turned off if biological or chemical exposure is imminent.

Decontamination of most biologically contaminated patients and equipment can be accomplished with soap and water.

Treatment of biological-agent patients may require observing and evaluating the individual to determine necessary medications, isolation, and treatment.

9003. Chemical Environment

Handling chemically contaminated patients presents a great challenge to HSS units. Presume all casualties generated in a chemical environment are contaminated. Due to the vapor hazard associated with contaminated patients, medical personnel may have to remain at MOPP level 4 for long periods of time. Therefore, they must locate clean areas in which to set up their MTF.

MTF should only operate in a contaminated environment until they have the time and the means to move to a clean area.

9004. Actions Before an Attack

The first and foremost action for medical personnel to take before an NBC attack is training to survive the attack; operate in the environment; and effectively care for NBC casualties. Medical personnel must keep their immunizations current; use available prophylaxis against suspect agents; use pre-treatments for suspect agents; and have antidotes and essential medical supplies readily available for known or suspected chemical or biological agents. The best defense for medical personnel is to protect themselves, their patients, medical supplies, and equipment by applying contamination avoidance procedures. They must ensure that stored medical supplies and equipment are in protected areas, or in storage containers with covers in place. One method of having supplies and equipment protected is to keep them in their shipping containers until actually needed. When time permits and warnings are received that an NBC attack is imminent, or that a downwind hazard exists, medical personnel should seek protected areas such as basements of buildings, culverts, or ravines for themselves and their patients.

9005. Actions During an Attack

Medical personnel and their patients will remain in the best available protected areas during the attack. During a nuclear attack, medical personnel and their patients should take up positions within the shelter that are away from windows and other openings; only move out of these positions when notified that it is safe to do so.

9006. Actions After an Attack

Medical personnel must survey their equipment to determine the extent of damage and their capability to continue the mission. Initially, patients from nuclear detonations will suffer thermal burns or blast injuries. Also, expect disorientation from patients and medical personnel. Normally, radiation-induced injuries will be observed after a few hours to days. With the exception of blister agents, chemical agent patients will manifest their injuries immediately upon exposure to the agent. Biological agent patients may not show any signs of illness for hours to days after exposure. All patients receiving treatment must be checked for NBC contamination. Patients are decontaminated before treatment to reduce the hazard to medical personnel, unless life-or-limb threatening conditions exist. Patients requiring treatment before decontamination are treated in the contaminated medical area of the decontamination station. Examples of patient conditions that may require treatment at the contaminated treatment station of the decontamination area are cardiac arrest, massive hemorrhage, and respiratory distress.

9007. Patient Evacuation

An NBC environment forces the unit commander to consider to what extent he will commit evacuation assets to the contaminated area. If operating forces are operating in a contaminated area, most or all of the medical evacuation assets will operate there. However, efforts should be made to keep some ambulances free of contamination.

There are three basic modes of evacuating casualties: personnel, ground vehicles, and aircraft. Using personnel to physically carry the casualties involves a great deal of inherent stress. Cumbersome MOPP gear, added to climate, increased workloads, and the fatigue of battle, will greatly reduce personnel effectiveness. Radiation exposure records must be maintained by the NBC noncommissioned officer and made available to the commander, staff, and unit medical personnel. Again, every effort is made to limit the number of evacuation assets that are contaminated.

Evacuation considerations should include--

- A number of ambulances will become contaminated in the course of battle. Optimize the use of resources; use those already contaminated (medical or nonmedical) before employing uncontaminated resources.

- Once a vehicle or aircraft has entered a contaminated area, it is highly unlikely that it can be spared long enough to undergo a complete decontamination. This will depend upon the contaminant, the tempo of the battle, and the resources available to the evacuation unit. Normally, contaminated vehicles (air and ground) will be confined to dirty environments.

- Use ground ambulances instead of helicopters in contaminated areas; they are more plentiful, are easier to decontaminate, and are easier to replace. However, this does not preclude the use of aircraft.

- The relative positions of the contaminated area, forward line of own troops, and the threat of air defense systems will determine where helicopters may be used in the evacuation process. One or more helicopters may be restricted to contaminated areas; use ground vehicles to cross the line separating clean and contaminated areas. The ground ambulance proceeds to an MTF with a patient decontamination station; the patient is decontaminated and treated. If further evacuation is required, a clean ground or air ambulance is used. Routes used by ground vehicles to cross between contaminated and clean areas are considered dirty and should not be crossed by clean vehicles. Consider the effects of wind and time upon the contaminants; some agents will remain for extended periods of time.

- Always keep the rotor wash of the helicopters in mind when evacuating patients, especially in a contaminated environment. The intense winds will disturb the contaminants and further aggravate the condition. The aircraft must be allowed to land and reduce to flat pitch before patients are brought near. This will reduce the effects of the rotor wash. Additionally, a helicopter must not land too close to a decontamination station (especially upwind) because any trace of contaminants in the rotor-wash will compromise the decontamination procedure.

- Unless cleared in advance, Navy vessels will not receive contaminated patients or aircraft.

- Hasty decontamination of aircraft and ground vehicles is accomplished to minimize crew exposure. Units include deliberate decontamination procedures in their SOPs.

- Evacuation of patients must continue, even in an NBC environment. The medical planner must recognize the constraints NBC places on operations; then plan and train to overcome these deficiencies.

9008. Personnel Considerations

During NBC actions, medical treatment requirements will increase; thus, medical reinforcement/replacement may be necessary. Plans for HSS following an NBC attack must include efforts to conserve available HSS personnel and ensure their best use. Medical personnel will be fully active in providing emergency medical treatment or advanced trauma management; they will provide more definitive treatment as time and resources permit. However, to provide definitive care they must be able to work in a shirt sleeved environment, not in MOPP levels 3 or 4. Nonmedical personnel can conduct search and rescue operations for NBC casualties and can also provide immediate first aid and decontamination.

Appendix A
Geneva Conventions

The conduct of armed hostilities on land is regulated by the Law of Land Warfare, which is both written and unwritten. The Law of Land Warfare is derived from two principal sources: custom and lawmaking treaties such as The Hague and Geneva Conventions. The rights and duties set forth in these conventions are part of the "Supreme Law of the Land". A violation of any of these is a serious offense. This appendix addresses provisions of the Geneva Conventions as they may apply within HSS organizations of Marine operating forces.

Background

A Diplomatic Conference for the Establishment of International Conventions for the Protection of Victims of War was convened by the Swiss Federal Council from April 21 to August 12th, 1949. The working documents of this conference formed the 1949 Geneva Conventions. The four Conventions established are--

I - Geneva Convention for the Amelioration of the Condition of the Wounded and Sick in Armed Forces in the Field, of 12 August 1949.

II - Geneva Convention for the Amelioration of the Condition of the Wounded, Sick and Shipwrecked Members of Armed Forces at Sea, of 12 August 1949.

III - Geneva Convention Relative to the Treatment of Prisoners of War, of 12 August 1949.

IV - Geneva Convention Relative to the Protection of Civilian Persons in Time of War, of 12 August 1949.

Under the Conventions, the signatories established the principle of disinterested aid to all victims of war without discrimination to those who, through wounds, capture, or shipwreck, are no longer enemies but merely suffering and defenseless human beings. With the additional protocols accepted and signed in 1977, the Geneva Conventions established the manner in which the victims of war will be treated. The Conventions also establish standards of conduct for medical and religious personnel assigned to aid the victims. Discussions from each of the Conventions are quite lengthy. The following topics highlight areas of prime concern. Each topic addressed will be identified by the Convention number, chapter and article from which it was taken. For detailed study of the principles, refer to the International Committee of the Red Cross manual entitled *The Geneva Conventions of August 12, 1949* and its supplementary, *Protocols Additional to the Geneva Conventions of 12 August 1949*. The United States is a signatory to the Geneva Conventions of 1949 and has directed its military forces to abide by the articles.

Identification of Medical Units, Facilities, and Vehicles

The Distinctive Emblem: "As a compliment to Switzerland, the heraldic emblem of the red cross

on a white background, formed by reversing the Federal colors, is retained as the emblem and distinctive sign of the Medical Service of armed forces." (I, Chapter VII, Article 38). "Nevertheless, in the case of countries which already use as emblem, in place of the Red Cross, the Red Crescent or the Red Lion and Sun on a white ground, those emblems are also recognized by the terms of the present Convention." (I, Chapter VII, Article 38). Although not recognized by the Geneva Conventions, the Red Star of David on a white background is used by Israel. Figure A-1 illustrates markings currently in use. For purposes of identification, medical facilities include non-patient care areas, such as those used for dining, maintenance, and administration of medical units. A unit commander may, at his discretion, elect not to mark medical facilities. Should a commander decide to deploy medical facilities that are not marked in accordance with the articles of the Conventions, he runs the risk of losing the protection afforded by the Geneva Conventions. Commanders must consider this matter in planning operations.

Figure A-1. Emblems Identifying Medical Units, Facilities, and Vehicles.

Medical Personnel

"Medical personnel exclusively engaged in the search for, or the collection, transport, or treatment of the wounded or sick, or in the prevention of disease, staff exclusively engaged in the administration of medical units and establishments, as well as chaplains attached to the armed forces, shall be respected and protected in all circumstances." (I, Chapter IV, Article 24)

"Members of the armed forces specially trained for employment, should the need arise, as hospital orderlies, nurses, or auxiliary stretcher-bearers, in the search for or the collection, transport or treatment of the wounded and sick shall likewise be respected and protected if they are carrying out these duties at the time when they come into contact with the enemy or fall into his hands." (I, Chapter IV, Article 25)

"Medical personnel shall wear, affixed to the left arm a water-resistant armlet bearing the distinctive emblem, issued and stamped by the military authority. In addition, medical personnel will carry a special identity card bearing the distinctive emblem." (I, Chapter VII, Article 40; II, Chapter VI, Articles 41 and 42). For United States military personnel, the Geneva Convention Identity Card (DD 1934) is used.

"Medical personnel and chaplains who fall into the hands of the adverse Party, shall be retained only in so far as the state of health, the spiritual needs, and the number of prisoners of war require. Personnel thus retained shall not be deemed prisoners of war, but will benefit by all the provisions accorded prisoners of war. They shall continue to carry out, in accordance with their professional ethics, their medical and spiritual duties on behalf of prisoners of war, preferably those of the armed forces to which they themselves belong. They shall further enjoy the following facilities for carrying out their medical or spiritual duties." (I, Chapter IV, Article 28).

- "They shall be authorized to visit periodically the prisoners of war in labor units or hospitals outside the camp. The Detaining Power shall put at their disposal the means of transport required."

- "In each camp the senior medical officer of the highest rank shall be responsible to the military authorities of the camp for the professional activity of the retained medical personnel. For this purpose, from the outbreak of hostilities, the Parties to the conflict shall agree regarding the corresponding seniority of the ranks of their medical personnel, including those of the societies designated in Article 26. In all questions arising out of their duties, this medical officer, and the chaplains, shall have direct access to the military and medical authorities of the camp who shall grant them the facilities they may require for correspondence relating to these questions."

- "Although retained personnel in a camp shall be subject to its internal discipline, they shall not, however, be required to perform any work outside their medical or religious duties."

"Personnel whose retention is not indispensable by virtue of the provisions of Article 28 shall be returned to the Party to the conflict to whom they belong, as soon as a road is open for their return and military requirements permit. On their departure, they shall take with them the effects, personal belongings, valuables, and instruments belonging to them." (I, Chapter IV, Article 30)

"Persons engaged in medical activities shall not be compelled to perform acts or to carry out work contrary to the rules of medical ethics or to other medical rules designed for the benefit of the wounded and sick, or to refrain from performing acts or from carrying out work required by those rules and provisions." (I, Chapter IV, Article 28; II, Article 10, Paragraph 2).

"That the personnel of the unit or establishment are armed, and that they use the arms in their own defense, or in defense of the wounded and sick in their charge." (I, Chapter III, Article 22[1]).

Wounded and Sick in the Field

Protection and Care (I, Chapter II, Article 12).

- "Members of the armed forces and other designated persons who are wounded or sick shall be respected and protected in all circumstances."

- "They shall be treated humanely and cared for by the Party to the conflict in whose power they may be, without any adverse distinction founded on sex, race, nationality, religion, political opinions, or any other similar criteria."

- "Only urgent medical reasons will authorize priority in the order of treatment to be administered."

- "The Party to the conflict which is compelled to abandon wounded or sick to the enemy shall, as far as military considerations permit, leave with them a part of its medical personnel and material to assist in their care."

“Subject to the provisions of Article 12, the wounded and sick of a belligerent who fall into enemy hands shall be prisoners of war, and the provisions of international law concerning prisoners of war shall apply to them." (I, Chapter II, Article 14).

"Parties to the conflict shall record as soon as possible, in respect of each wounded, sick, or dead person of the adverse Party falling into their hands any particulars which may assist in his identification." (I, Chapter II, Article 16).

Wounded, Sick, and Shipwrecked at Sea

"Members of the armed forces who are at sea and who are wounded, sick, or shipwrecked, shall be respected and protected in all circumstances, it being understood that the term "shipwreck" means shipwreck from any cause and includes forced landings at sea by or from aircraft". (II, Chapter II, Article 12).

"Should fighting occur on board a warship, the sick-bays shall be respected and spared as far as possible." (II, Chapter III, Article 28).

Medical Facilities and Material

"Fixed establishments and mobile medical units of the Medical Service may in no circumstances be attacked, but shall at all times be respected and protected by the Parties to the conflict." (I, Chapter III, Article 19).

"Should fixed or mobile medical units fall into the hands of the adverse Party, their personnel shall be free to pursue their duties, as long as the capturing Power has not itself ensured the necessary care of the wounded and sick found in such establishments and units." (I, Chapter III, Article 19).

"The protection to which fixed establishments and mobile medical units of the Medical Service are entitled shall not cease unless they are used to commit, outside their humanitarian duties, acts harmful to the enemy." (I, Chapter III, Article 21).

"The material of mobile medical units of the armed forces which fall into the hands of the enemy, shall be reserved for the care of wounded and sick." (I, Chapter V, Article 33).

"The buildings, material and stores of fixed medical establishments of the armed forces shall remain subject to the laws of war, but may not be diverted from their purpose as long as they are required for the care of wounded and sick." (I, Chapter V, Article 33).

"The medical material and stores maintained to support the medical facilities shall not be intentionally destroyed." (I, Chapter V, Article 33).

"Transports of wounded and sick or of medical equipment shall be respected and protected in the same way as mobile medical units." (I, Chapter VI, Article 35).

"Medical aircraft (aircraft designated by red crosses or flashing blue light) shall not be attacked, but shall be respected by the belligerents, while flying at heights, times, and on routes specifically agreed upon between the belligerents concerned. Medical aircraft shall obey every summons to land. In the event of a landing thus imposed, the aircraft with its occupants may continue its flight after examination, if any. In the event of an involuntary landing in enemy or enemy-occupied territory, the wounded and sick, as well as the crew of the aircraft shall be prisoners of war. The medical personnel shall be treated according to Article 24." (I, Chapter VI, Article 36).

Hospital Ships

"Military hospital ships may in no circumstances be attacked or captured, but shall at all times be respected and protected, on condition that their names and descriptions have been notified to the Parties to the conflict ten days before those ships are employed." (I, Chapter III, Article 20; II, Chapter III, Article 22).

"Military hospital ships cannot be used for any military purpose." (II, Chapter III, Article 30).

"The protection to which hospital ships and sick-bays are entitled shall not cease unless they are used to commit, outside their humanitarian duties, acts harmful to the enemy." (II, Chapter III, Article 34).

"In particular, hospital ships may not possess or use a secret code for their radios or other means of communication." (II, Chapter III, Article 34).

Appendix B
Blood Support

Blood Program Offices

Armed Services Blood Program Office. The Armed Services Blood Program Office (ASBPO) manages the blood program for the DOD and is subject to the authority, direction and control of the Secretary of Defense through the Assistant Secretary of Defense for Health Affairs (ASD [HA]) and operational control of the Joint Chiefs of Staff.

Joint Blood Program Office. The Joint Blood Program Office (JBPO) is responsible for the joint blood program management in a theater of operations. The JBPO functions as part of the unified command surgeon's office but may establish an AJBPO for regional blood management. The JBPO—

- Supports the unified command surgeon or augment the commander, joint task force surgeon's staff.
- Is the central point of contact to ASBPO.
- Coordinates joint blood products requirements and capabilities in the theater of operations.
- Coordinates requirements, distribution, and facilities. It is the JBPO's responsibility to be sure blood is where it is needed. This includes determining how to get blood and blood products to forward units, ships and MTFs.
- Monitors shortfalls for blood products and supplies for blood collection, deglycerolization, and transfusion.
- Ensures readiness throughout the distribution system through exercises and training.
- Ensures compliance with Armed Service Blood Program (ASBP) policies, Food and Drug Administration regulations, and American Association of Blood Banks standards in peacetime, during contingencies, and during wartime.
- Performs as the unified command subject matter expert in determining blood requirements.
- Provides the blood concept, coordinate with logistics, transportation, and communication personnel on the joint staff for the unified command and prepare appendix 2 (Joint Blood Program) to Annex Q (Medical Services).

Area Joint Blood Program Office. An AJPBO, when established by the JBPO, coordinates requirements and distribution of all blood products to support the blood supply unit (BSU) and MTFs in a specific area, regardless of the Service component. Not all operations will require the establishment of an AJBPO.

Blood Program Facilities

Armed Services Whole Blood Processing Laboratory. An Armed Services Whole Blood Processing Laboratory (ASWBPL) is a US Air Force managed, tri-Service staffed central repository for blood required in contingencies and wartime. An ASWBPL releases blood to unified commands on approval by ASBPO. Theater units may NOT go directly to the ASWBPL for blood. The ASWBPL —

- Retypes blood for blood typing system (ABO) and Rh only.
- Packs and prepares blood for shipment to the theater.
- Maintains a peacetime inventory of 250 units of liquid blood for use as a rapid response requirement.

Blood Transshipment Centers. A blood transshipment center (BTC) serves as the central receiving point in theater for blood shipments from the ASWBPL and for issue to the BSUs. A BTC can store and process up to 7,200 units of blood daily. US Air Force personnel located at a major airhead usually operate it. Theater blood products are managed by the JBPO or AJBPO. BTCs—

- Inspect blood received from the ASWBPL.
- Store, ice, and receive blood and perform quality control.
- Issue blood to BSUs or other theater blood users.

The Navy or Marine Corps must arrange transportation to obtain blood from the BTC. Blood issued to the Navy and Marine Corps will be based on a daily allocation system established by the theater.

Blood Supply Unit. A BSU is responsible for receiving, storing and distributing blood within the theater of operations. It is required to provide a five-day storage supply of blood products based on proposed requirements and blood reports. The BSU can be identified to provide support in a specific geographical area regardless of Service components. The following facilities can serve as a BSU: Army blood platoon, Navy fleet hospital, naval amphibious vessels, hospital ships, MTFs, and blood product depots. BSUs—

- Receive, store, and distribute blood to supported facilities.
- Provide a five-day supply of blood and blood products based on requirements to the theater.
- Provide storage capabilities that maintain temperature requirements for liquid blood.
- Have the capability to produce ice for shipping and re-icing of blood in theater.
- Have the capability to store frozen blood products including fresh frozen plasma (FFP) and frozen red blood cells.
- Supply blood and blood products to MTFs based on the following authorized blood usage--

    -- Level I: No blood use is authorized. Only resuscitation fluids such as ringer's lactate and human albumin are available.
    -- Level II: Group O cells only (Rh pos/neg); no FFP. Resuscitation fluids such as ringers lactate and human albumin are available.
    -- Level III: Group and type specific cells and FFP as well as resuscitation fluids are available.

Appendix C
Authorized Medical/Dental Allowance Lists

Health Services Support authorized medical allowance lists (AMAL) and authorized dental allowance list (ADAL) are arranged in a modular concept. The equipment module contains equipment and reusable materiel required to establish the basic function of the module; e.g., operating room. The supply module contains consumable material designed to support the function in the treatment of a designated number of casualties or to perform a specific task. For readiness purposes, an equipment module may be stored in combination with its corresponding supply module. The materiel listed in each AMAL/ADAL is the minimum amount to be maintained. The AMAL/ADAL number and nomenclatures are stated below.

MCO 4400 series is the primary source for the policies and procedures for procurement of AMAL/ADALs to meet the required capability of the Marine Corps. This includes assembly, maintenance, levels of supply, and distribution of materiel. AMAL/ADALs are maintained and resupplied by the Medical Logistics Company, Supply Battalion, Force Service Support Group.

AMAL 618 - Laboratory Equipment
Equipment and reusable materiel required to establish a laboratory capable of hematology, microbiology, urinalysis, collecting, and chemistry testing.

AMAL 619-Laboratory Supply
Consumable supplies required to perform hematology, microbiology, urinalysis, and chemistry testing for 100 patients.

AMAL 627-X-Ray
Equipment, consumable supplies, and reusable materiel required to establish one x-ray suite for 100 patients.

AMAL 629-Pharmacy Equipment
Equipment and reusable materiel required to establish a pharmacy.

AMAL 630-Pharmacy Supply
Consumable supplies required to provide pharmacy support to 1,000 persons, in 6 - 5 day packages for a total of 30 days.

AMAL 631-Shock Surgical Team/Triage Equipment
Equipment and reusable materiel required to establish a basic shock trauma surgical team or triage to support the receipt, resuscitation, sorting and temporary holding of casualties.

AMAL 632-Shock Surgical Team/Triage Supply
Consumable supplies required to receive, resuscitate, sort and temporarily hold 50 casualties with major wounds and to provide basic line corpsman resupply.

AMAL 633-Ward Equipment
Equipment and reusable materiel required to establish a 20 bed unit providing care for patients.

AMAL 634-Ward Supply
Consumable supplies required to provide ward support for 100 bed days to patients.

AMAL 635-Aid Station Equipment
Equipment and reusable materiel required to support one division, wing, group, or engineer, BAS.

AMAL 636-Aid Station Supply
Consumable supplies required to provide aid station support, initial resuscitative and stabilizing care for 50 casualties with major wounds prior to evacuation and to resupply basic line corpsman.

AMAL 637-Preventive Medicine Equipment
Equipment and reusable materiel required to establish a preventive medicine section providing technical preventive medicine advice and inspection of food service operations, waste disposal, water potability, and sources, vector control, and coordination of control measures required of communicable diseases and monitoring and assisting in immunization programs.

AMAL 638-Preventive Medicine Supply
Consumable supplies required to provide support of preventive medicine effort of the MEF, in 12 - 5 day packages for a total of 60 days.

AMAL 639-Operating Room Equipment
Equipment and reusable materiel required to support one operating room for performance of major surgical procedures, administration of general anesthesia, sterilization and maintenance of sterile material.

AMAL 640-Operating Room Supply
Consumable supplies required to provide operating room support for 25 surgical cases.

AMAL 645-Forward Resuscitative Surgery System (FRSS)
Equipment, consumable supplies, and reusable materiel required to care for 18 patients in a 48 hour period.

AMAL 646-Forward Resuscitative Surgery System (FRSS) Re-Supply
Equipment and consumable supplies required to reconstitute the FRSS suite.

ADAL 662-Field Dental Operatory
Equipment and reusable materiel required to establish a field dental clinic. Consumable supplies required to provide emergency, diagnostic, preventive and maintenance dental support for 400 patients.

AMAL 684-Geographic Supplement
Consumable supplies and reusable material required to accommodate special mission/geographic related requirements for a MEF, in 12 - 5 day packages for a total of 60 days.

AMAL 685-Cold Weather Supplement
Consumable supplies and reusable material required to accommodate special mission/geographic related requirements into areas where cold related injuries are likely to occur.

AMAL 686-Hot Weather Supplement
Consumable supplies and reusable material required to accommodate special mission/geographic related requirements into areas where heat related injuries are likely to occur.

AMAL 687-NBC Individual
Materials required in order for the individual to conduct primary decontamination and treatment in an NBC environment.

AMAL 688 NBC Unit
Materials required in order for the units to conduct primary and secondary decontamination and treatment in a NBC environment.

AMAL 691 Med Log Test/Repair Equip
Equipment and reusable materiel required to perform testing, calibration and 3d & 4th echelon maintenance of medical/dental equipment.

AMAL 692 Med Log Test/Repair Supply
Consumable supplies required to accommodate a medical repair section in the testing, calibration, and 3d & 4th echelon maintenance of medical/dental equipment.

AMAL 699 Reestablished Sick Call Block
Medical materiel required to provide essential treatment for disease and nonbattle injuries during routine sick call for 1000 deployed Marine Corps forces for 30 days. This AMAL provides the sick call capability for a BAS and will usually be deployed with the BAS AMALs.

Appendix D
Glossary

ACE	aviation combat element
AC/S	assistant chief of staff
ADAL	authorized dental allowance list
AE	assault echelon
AFMIC	Armed Forces Medical Intelligence Center
AFOE	assault follow-on echelon
AJBPO	Area Joint Blood Program Office
AMAL	authorized medical allowance list
AO	area of operations
AOA	amphibious objective area
AOR	area of responsibility
ASBP	Armed Services Blood Program
ASBPO	Armed Services Blood Program Office
ASD (HA)	Assistant Secretary of Defense for Health Affairs
ASWBPL	Armed Services Whole Blood Processing Laboratories
ATO	air tasking order
BAS	battalion aid station
BSU	blood supply unit
BTC	blood transshipment center
BUMED	Bureau of Medicine and Surgery
CD-ROM	compact disc-read only memory
CE	command element
CG	commanding general
COA	course of action
COMMARFORLANT	Commander, Marine Corps Forces, Atlantic
COMMARFORPAC	Commander, Marine Corps Forces, Pacific
CONUS	continental United States
COSR	combat and operational stress reaction
CRTS	casualty receiving and treatment ship
CSS	combat service support
CSSA	combat service support area
CSSE	combat service support element
DNBI	disease and nonbattle injury
DOD	Department of Defense
DP-A	dental platoon – air
DS	dental section
DSS	dental service support
DTF	dental treatment facility

EH	environmental health
EMF	expeditionary medical facility
EMW	expeditionary maneuver warfare
EPW	enemy prisoner of war
ERCS	en route care system
ESG	expeditionary strike group
FDPMU	forward deployed preventive medicine unit
FFP	fresh frozen plasma
FHP	force health protection
FMC	field medical card
FRSS	forward resuscitative surgery system
FSSG	force service support group
FST	fleet surgical team
G-1	manpower/personnel officer (major subordinate commands and larger organizations)
G-2	intelligence officer (major subordinate commands and larger organizations)
G-3	operations officer (major subordinate commands and larger organizations)
G-4	logistics officer (major subordinate commands and larger organizations)
G-5	plans officer (major subordinate commands and larger organizations)
GAS	group aid station
GCE	ground combat element
H&S	headquarters and service
HCA	humanitarian and civic assistance
HF	high frequency
HMMWV	high mobility multipurpose wheeled vehicle
HN	host nation
HNS	host-nation support
HSS	health service support
HSSE	health service support element
HSSO	health service support officer
ICU	intensive care unit
INTELINK	intelligence link
J-5	plans directorate of a joint staff
JBPO	Joint Blood Program Office
JTF	joint task force
JOPES	Joint Operation Planning and Execution System
JP	joint publication

LCC	amphibious command ship
LF	landing force
LFSP	landing force support party
LHA	amphibious assault ship (general purpose)
LHD	amphibious assault ship (multipurpose)
LPD	amphibious transport dock
LSD	landing ship dock
MACG	Marine air control group
MAG	Marine aircraft group
MAGTF	Marine air-ground task force
MAP	Medical Augmentation Program
MARCORCASPROCMAN	Marine Corps Casualty Procedure Manual
MARFOR	Marine Corps Forces
MARFORRES	Marine Corps Forces Reserve
MAW	Marine aircraft wing
MCCDC	Marine Corps Combat Development Command
MCO	Marine Corps order
MCRP	Marine Corps reference publication
MCWP	Marine Corps warfighting publication
MEB	Marine expeditionary brigade
MedLogCo	medical logistics company
MSOC	medical support operations center
MEF	Marine expeditionary force
MEU	Marine expeditionary unit
MMART	mobile medical augmentation readiness team
MOLLE	modular lightweight load-carrying equipment
MOOTW	military operations other than war
MOPP	mission-oriented protective posture
MPF	maritime pre-positioning force
MPS	maritime pre-positioning ships
MPSRON	maritime pre-positioning ships squadron
MSSG	Marine expeditionary unit service support group
MTF	medical treatment facility
MTVR	medium tactical vehicle replacement
MWSG	Marine wing support group
MWSS	Marine wing support squadron
NATO	North Atlantic Treaty Organization
NBC	nuclear, biological, and chemical
NEC	Navy Enlisted Classification
NOBC	Navy Officer Billet Classification
OCONUS	outside the continental United States
OIF	Operation Iraqi Freedom

OPCON	operational control
OPLAN	operation plan
OPORD	operation order
PM	preventive medicine
PMI	patient movement item
PREVMEDO	preventive medicine officer
RTD	return to duty
SASSY	support activities supply system
S-1	manpower/personnel officer (units and organizations below the major subordinate command level)
S-2	intelligence officer (units and organizations below the major subordinate command level)
S-3	operations officer (units and organizations below the major subordinate command level)
S-4	logistics officer (units and organizations below the major subordinate command level)
S-6	communications and information systems officer (units and organizations below the major subordinate command level)
SIMLM	single integrated medical logistics manager
SMU	SASSY management unit
SOP	standing operating procedure
STP	shock trauma platoon
T-AH	hospital ship
T/E	table of equipment
TMO	The Medical Officer of the Marine Corps
T/O	table of organization
UIC	unit identification code
VHF	very high frequency

Appendix E
References and Related Publications

Joint Publications (JPs)

Joint Pub 3-02	Joint Doctrine for Amphibious Operations
Joint Pub 3-07	Joint Doctrine for Military Operations Other Than War
Joint Pub 3-07.3	Joint Tactics, Techniques, and Procedures for Peace Operations
Joint Pub 3-07.6	Joint Tactics, Techniques, and Procedures for Foreign Humanitarian Assistance
Joint Pub 4-0	Doctrine for Logistic Support of Joint Operations
Joint Pub 4-02	Doctrine for Health Service Support in Joint Operations
Joint Pub 4-06	Joint Tactics Techniques and Procedures for Mortuary Affairs in Joint Operations
Joint Pub 5-00.2	Joint Task Force (JTF) Planning Guidance and Procedures

CJCS Directives

CJCSM 31.22.01	Joint Operation Planning and Execution System (JOPES) Vol I
CJCSM 3122.03A	Joint Operation Planning and Execution System (JOPES) Vol II

Marine Corps Publications

MCRP 3-02G	First Aid
MCWP 3-24	Assault Support
MCRP 3-31B	Amphibious Ships and Landing Craft Data Book
MCWP 3-32	MPF Operations
MCWP 3-37.3	NBC Decontamination
MCRP 3-37A	NBC Field Handbook
MCRP 3-37B	Field Behavior of NBC Agents
MCDP 4	Logistics
MCWP 4-1	Logistics Operations
MCWP 4-11	Tactical-Level Logistics
MCWP 4-11.1	Health Service Support Operations
MCRP 4-11.1A	Treatment of Chemical Agent Casualties and Conventional Military Chemical Injuries
MCRP 4-11.1B	Treatment of Nuclear and Radiological Casualties
MCRP 4-11.1C	Treatment of Biological Warfare Agent Casualties
MCRP 4-11.1D	Field Hygiene and Sanitation
MCRP 4-11.1F	HSS in an NBC Environment
MCWP 5-1	Marine Corps Planning Process
MCRP 5-12D	Organization of Marine Corps Forces
MCRP 6-11C	Combat Stress
MCO P3040.4 E	Marine Corps Casualty Procedure Manual Short title: MARCORCASPROCMAN

US Navy Publications and Instructions

NAVMED P 117	Manual of the Medical Department
NAVMED P 5010	Preventive Medicine Manual
NAVMED P 6530	Joint Blood Program Handbook
NTTP 4-02.2	Patient Movement
NWP 4-02 (Rev A)	Naval Expeditionary HSS Afloat and Ashore
BUMEDINST 5360.1	Decedent Affairs Manual
BUMEDINST 6440.5 series	Medical Augmentation Program (MAP)
BUMEDINST 6600.10 series	Dental Infection Control Program
NAVMEDCOMINST 6150.35	Medical Warning Tag

US Army Publications

FM 4-02.10	Theater Hospitalization
FM 4-02.12	HSS in Corps and Echelons Above Corps
FM 4-02.17	Preventive Medicine Services
FM 4-02.19	Dental Service Support in a Theater of Operations
FM 4-25.12	Unit Field Sanitation Team
FM 8-9	NATO Handbook on Medical Aspects of NBC Defensive Operations
FM 8-10-26	Employment of the Medical Company (Air Ambulance)
FM 8-51	Combat Stress Control in a Theater of Operations
FM 8-55	Planning for Health Service Support
FM 22-51	Leader's Manual for Combat Stress Control

Other Publications

The Emergency War Surgery NATO Handbook, U.S. Government Printing Office, 1988

World Wide Web Homepages

United State Marine Corps, MCCDC, Doctrine Division, World Wide Web Homepage:
https://www.doctrine.usmc.mil/

United States Navy, Doctrine Command, World Wide Web Homepage:
http://www.nwdc.navy.mil/

United States Army, General Dennis Reimer Training and Doctrine Digital Library, World Wide Web Homepage: http://155.217.58.58/atdls.htm

Chairman of Joint Chiefs of Staff, Joint Doctrine, World Wide Web Homepage:
http://www.dtic.mil/doctrine/