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DEPARTMENT OF THE ARMY FIELD MANUAL — FM 31–8

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MEDICAL SERVICE IN JOINT OVERSEA OPERATIONS



DEPARTMENTS OF THE ARMY, THE NAVY, AND THE AIR FORCE

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DEPARTMENTS OF THE ARMY,
THE NAVY, AND THE AIR FORCE

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MEDICAL SERVICE IN JOINT OVERSEA OPERATIONS

		Paragraphs	*Page*
CHAPTER 1.	GENERAL		
Section I.	Purpose and scope of manual	1– 3	2
II.	Medical service, general considerations	4– 8	2
III.	Medical service under unified Command in joint oversea operations.	9–13	4
IV.	Medical service, joint oversea operations, general considerations.	14–17	8
CHAPTER 2.	ARMY MEDICAL SERVICE IN AN AREA OF OPERATIONS		
Section I.	General	18–20	12
II.	Unit medical service	21, 22	14
III.	Division medical service	23–26	15
IV.	Field army medical service	27–32	16
V.	Medical service of communications zone	33–41	18
CHAPTER 3.	NAVY MEDICAL SERVICE IN AN AREA OF OPERATIONS	42–46	25
4.	AIR FORCE MEDICAL SERVICE IN AN AREA of OPERATIONS		
Section I.	General	47	33
II.	Base level, area, and specialized medical services.	48, 49	33
III.	Aeromedical evacuation	50–55	35
IV.	Ancillary medical services	56	40
CHAPTER 5.	JOINT MEDICAL PLANNING		
Section I.	General	57, 58	42
II.	Medical estimate	59–64	42
III.	Planning factors	65–70	45
IV.	Command problems	71–73	48
V.	Medical procedures	74–82	49
VI.	Development of the medical plan	83–85	50
CHAPTER 6.	MEDICAL SERVICE IN AIRBORNE OPERATIONS	86–91	52
7.	MEDICAL SERVICE IN JOINT AMPHIBIOUS OPERATIONS	92–97	63

CHAPTER 1
GENERAL

Section I. PURPOSE AND SCOPE OF MANUAL

1. Purpose

The two principal purposes of this manual are to familiarize senior staff officers of the Armed Forces with the general doctrines, organization, and practices of the medical services of the Army, the Navy, and the Air Force, and to discuss the employment of these medical services in joint oversea operations. This manual does not have the force of an order or directive, nor does it alter the authority and responsibility of the Commander of a Joint Force for the administration and operation of his command.

2. Scope

An initial synopsis of the overall mission of military medical service is followed by a brief consideration of each of the medical services individually. Finally, the technique of employment of joint medical service is covered from the aspects of the estimate, the plan, and the operation. Throughout the manual the use of technical medical terminology and doctrine has been deliberately avoided. The information concerning the unilateral employment of each medical service is included to provide background information and to delineate certain responsibilities.

3. References

For further references see "Joint Action Armed Forces" (FM 110–5/JAAF/AFM 1–1), 19 September 1951, as amended, and "Joint Logistics Policy and Guidance," (FM 110–10/JANALP/AFM 400–4), 4 June 1952.

Section II. MEDICAL SERVICE, GENERAL CONSIDERATIONS

4. Mission

The primary mission of the medical services of the Armed Forces is the conservation of military manpower.

5. Scope of Mission

The medical mission is divided into three functions: Selection, military rehabilitation and utilization of personnel, and preventive medicine.

6. Selection

This function is three-fold. It involves formulating and recommending physical and mental standards for the acceptance of individuals into the military service; the screening of individual candidates by these standards to determine their suitability for service, and the screening out of those individuals who, after entering the Armed Forces, fall below these standards.

7. Military Rehabilitation and Utilization of Personnel

Military rehabilitation of personnel is accomplished in three major phases: First, the evacuation of the sick and injured to places of treatment; second, the hospitalization and treatment; and third, the rehabilitation of convalescent patients.

a. When operating against strong enemy resistance, as many as one-fifth or more of all forces engaged may become patients within a short period of time and will require immediate evacuation. Under the most favorable circumstances this task would be difficult. As it is, this retrograde movement must be accomplished against, and without interference to, the constant forward flow of personnel and supplies. In addition, these individuals are no longer self-sustaining, and must be carried or otherwise cared for throughout each step of their journey back from the front. The total process of evacuation falls into a distinct pattern; that of collection, sorting, emergency medical treatment, and transportation of patients. The organization and function of the medical units which are specially designed to accomplish these tasks will be discussed in detail in subsequent chapters.

b. The military objective of hospitalization and treatment is to return the maximum number of casualties to full duty within the shortest space of time. In addition, each patient must be assured of receiving the highest type of medical care. Toward these ends have been designed the medical installations, fixed and mobile, shore based and afloat, which will subsequently be described, together with the tactical considerations governing their employment.

c. Rehabilitation of the convalescent patient is accomplished to retain those patients whose health can be restored for further combat duty. This, then is military utilization. For patients who cannot be returned to combat duty, preparation for further evacuation to the rear and/or zone of interior is needed and here likewise is effected military rehabilitation and utilization. The proper steps exercised in military rehabilitation and utilizaton would then meet the mission of the Medical Service—conservation of manpower.

8. Preventive Medicine

Encompassing all of those measures necessary to maintain the individual soldier, sailor, marine, or airman in top mental and physical condition, this function of the medical service is of vast importance to all military commanders. Chief among these measures are—

a. Control of communicable diseases, characterized by such measures as prophylaxis, immunization, and isolation of the sick.

b. Maintenance of appropriate standards of sanitation and personal hygiene—which will include selection of camp sites, water supply, insect control, waste disposal, food inspection, bathing facilities, housing, etc.

c. Preventive psychiatry—or maintenance of the mental health of the command. Often overlooked or misinterpreted in the past, this form of preventive medicine must be actively employed, particularly among troops exposed to the abnormal stresses of combat.

Section III. MEDICAL SERVICE UNDER UNIFIED COMMAND IN JOINT OVERSEA OPERATIONS

9. General

a. Unified Command. "A unified command is a joint force, under a single commander, which is composed of significant assigned or attached components of two or more Services, and which is constituted and so designated by the Joint Chiefs of Staff or by a commander of an existing unified command which was established by the Joint Chiefs of Staff." (JAAF 30241)

b. Commander of a Unified Command. The authority which establishes a unified command shall designate a commander authorized to exercise unified command, assign to him forces and his mission, and may designate a second-in-command (JAAF 30243). The organization of and the assignment of responsibilities to his staff is, of course, a prerogative of the Unified Commander who has the necessary authority to organize his medical department as he sees fit.

c. Joint Staff. A commander of a unified command shall have a joint staff with appropriate members from each Service component under his command in key positions of responsibility. The joint staff shall be reasonably balanced with due regard to the composition of the forces and the character of the operation(s) so as to insure an understanding by the commander of the tactics, techniques, capabilities, needs and limitations of each component part of his forces. Normally, a member of the joint staff shall not

also function as the commander of one of the Service components or of a subordinate force. (JAAF 30244) In turn, the medical member of the joint staff normally shall not also function as the medical member of the staff of one of the Service components or of a subordinate force.

d. Command of Component Forces. Forces assigned to a unified command will normally consist of two or more Service components, each of which will be commanded directly by an officer of that component. Commanders of Service component forces will communicate directly with appropriate headquarters on matters which are not a responsibility of the commander of a unified command. Unless authorized to do so by the appointing authority, the commander of a unified command does not exercise direct command of any of the Service components or of a subordinate force. (JAAF 30245) Hence in medical matters the medical member of the staff of a Service component commander will deal with the medical member on the staff of the commander of the unified command in matters requiring his general supervision but with their appropriate service headquarters in matters which are not a responsibility of the commander of a unified command.

e. Authority of Commander of a Unified Command. In addition to their operational and strategic responsibilities and the overall authority invested in a commander, the commander of a unified command has the following specific authority or responsibility that effects the medical service of Component Forces:

(1) To coordinate logistic and administrative support of the component forces of the unified command and to provide the maximum balanced program for necessary military effectiveness and in furtherance of the missions. Under wartime conditions and where critical situations make diversion of normal logistic processes necessary, the logistic authority and responsibility of United States commanders under the Joint Chiefs of Staff are expanded to authorize them to utilize all facilities and supplies of all forces assigned to their commands as necessary for the accomplishment of their missions under the currently approved war plan being implemented. Responsibility for logistic support to component forces in these commands remains with the departments responsible for that support. Under conditions short of war, scope of the logistical and administrative responsibilities exercised by the commanders of unified commands will be consistent with the peacetime limitations imposed by legislation, departmental regulations, budgetary consid-

erations, and such other specific conditions as prescribed by the Joint Chiefs of Staff (JAAF 30246a).

(2) To exercise coordination of logistical and administrative policies and procedures through the separate military commanders of their component forces (JAAF 30246b).

(3) To insure a positive and clearly defined assignment of responsibility to subordinate commanders for certain routine operational matters which require coordination of effort of two or more commanders under the Joint Chiefs of Staff and to delineate areas of responsibility of subordinate commanders and coordinate the boundaries thereof with other commanders under the Joint Chiefs of Staff as necessary to prevent both duplication of effort and absence of control of such operations in any area (JAAF 30246f).

(4) To establish an adequate system of control under the principle of unified command for the purpose of local defense, and in connection therewith to delineate such areas of responsibility for subordinate commanders as are deemed desirable (JAAF 30246g).

f. Responsibilities of Component Commanders. Each component commander is charged with the responsibility for making recommendations to the commander of a unified command on the proper employment of his component, and for accomplishing such operational missions as may be assigned by the superior authorized to exercise unified command.

(1) The component commander remains responsible in regard to his own Service component for—

(*a*) Internal administration and discipline except as otherwise provided in the appropriate section of this publication.

(*b*) Training in own Service technique and tactical methods.

(*c*) Logistics functions normal to the component except as otherwise directed by higher authority or herein.

(*d*) Tactical employment of the forces of his component.

(2) Each component commander is responsible to the commander of a unified command for the conduct of joint training, as directed, of elements of the other Services in—

(*a*) Operations for which his own Service has or may be assigned primary responsibility, and, also,

(*b*) Operations for which his facilities and capabilities are suitable.

(3) The selection and nomination of specific units for subordinate forces to meet the operational requirements of the commander of a unified command are normally the function of a component commander. Such units revert to his command whenever such subordinate forces are dissolved.

(4) The operating details of any service logistic support system will be retained and exercised by the commanders of the Service components in accordance with their departmental instructions and under the broad policy direction of the commander of the unified command (JAAF 30251).

10. Unified Command Surgeon

The unified command surgeon is the medical member of the unified command joint staff. As such, he has direct access to all other members of the joint staff and to the commander. As a Medical Corps officer, the surgeon is qualified as a technical expert. As a staff officer, it is his responsibility to advise the commander on medical matters. Thus the surgeon's duties are normally advisory, planning, and supervisory as they pertain to medical service (except dental service) under unified command. The unified command surgeon's special staff division of the joint staff normally will be comprised of officers from each Service of the unified command holding key position of responsibility. The surgeon's staff normally will be reasonably balanced as to number, experience, and rank of the members among the Services concerned. The general responsibilities of the unified command surgeon, normally will be as follows:

a. Providing information and advice concerning medical service to the commander and to other members of the joint staff.

b. Developing the medical portion of plans formulated by the joint staff based upon decisions of the commander and coordinating the medical aspects of plans formulated by the component commanders for joint operations.

c. Reviewing overall requirements of the medical services of component forces and coordinating priorities and programs in order to effectively utilize supplies, facilities, and personnel.

d. Establishing and coordinating overall preventive medicine policies, plans and programs.

e. Supervising the public health and welfare aspects of military government and civil affairs activities.

f. Providing professional advice on the protection of personnel and care of patients in connection with chemical, biological and radiological warfare.

11. Unified Command Dental Surgeon

The unified command dental surgeon will be assigned responsibilities for the dental service generally paralleling the responsibilities of the unified command surgeon for the medical service.

12. Component Force Surgeons

In contrast with the unified command surgeon's responsibilities outlined in paragraph 10, the component force surgeon normally will exercise the following responsibilities with respect to medical service (except dental) of his component force, as directed by his commander:

a. Determination of medical personnel, materiel, and unit requirements.

b. Medical service personnel management, administration, and assignment.

c. Technical supervision over subordinate surgeons and medical units of the respective component force.

d. Determination of hospital requirements and location.

e. Command and operational responsibility for medical units of his own service not assigned to subordinate commands or elements.

f. Recommend readjustment of component force's evacuation policy within materiel capabilities under the overall evacuation policy.

g. Operation of the component force medical equipment and materiel distribution systems.

h. Opteration of evacuation systems peculiar to his component force for which responsibility is assigned by the Joint Chiefs of Staff.

13. Component Force Dental Surgeons

The component force dental surgeon will be assigned responsibilities for the dental service similar to the responsibilities of the component force surgeon for the medical service, except that the dental service normally will utilize established medical supply facilities.

Section IV. MEDICAL SERVICE, JOINT OVERSEA OPERATIONS GENERAL CONSIDERATIONS

14. Command Relationships

In joint oversea operations it is essential that the command relationships at all levels be clear and well defined for proper medical service. To implement this, and to insure properly coordinated medical service, there normally will be a joint medical staff at the

highest command level of the joint force. A primary responsibility of every joint medical staff is the dissemination of approved unified command policies through command channels to component forces.

15. General Division of Responsibilities

The detailed division of responsibilities between the component medical services will vary somewhat, depending upon the nature of the joint operations and the composition of the joint force. (For division of responsibilities in airborne and amphibious operations, see chs. 6 and 7, respectively.) Policies, when required for further delineation of responsibilities, will be developed by the joint medical staff and recommended to the commander by the unified command surgeon for approval and dissemination. However, the following broad principles are established.

a. Army. It is the responsibility of the Army force commander to provide:

(1) A hospitalization system for Army troops.
(2) All ground evacuation of Army personnel and train evacuation for Navy and Air Force personnel as required.
(3) Aeromedical evacuation within the Army combat zone to include battlefield pickup of patients, their air transport to initial point of treatment and any subsequent move to hospital facilities within the Army combat zone.
(4) Qualified Army Medical Service officers as indicated by the situation for duty with Air Force medical units at facilities engaged in aeromedical evacuation to effect disposition of Army patients being evacuated by air. This control obviates unnecessary depletion of ground force combat potential due to over-evacuation..
(5) Medical supply of Army forces.

b. Navy. It is the responsibility of the Navy commander to provide:

(1) A hospitalization system for Naval and Marine forces.
(2) Evacuation by water for troops of all forces.
(3) Aeromedical evacuation of personnel over routes of sole interest to the Navy, where the facilities of the Air Force cannot provide the service.
(4) Aeromedical evacuation within Naval (including Marine) combat areas, to include battlefield pickup of casualties, their air transport to initial point of treatment and any subsequent move to hospital facilities within the combat area.

(5) Medical Supply for Naval and Marine Corps forces.

c. Air Force. It is the responsibility of the Air Force commander to provide:

(1) A hospitalization system for Air Force troops.

(2) Aeromedical evacuation within the Unified Command area and to the Continental U. S. or a designated temporary safe haven, except that provided by the Army in organic aircraft in accordance with *a*(3) above, and by the Navy in accordance with *b*(3) and (4) above. This includes all aeromedical evacuation from the initial points of treatment or points of subsequent hospitalization within the Combat Zone to points outside of the Combat Zone.

(3) Intransit facilities for patients entering or enroute yia the aeromedical evacuation system on or in the vicinity of all air strips and air bases utilized by the Air Force.

(4) Air Force patient aeromedical evacuation control officers (CAECO) for attachment to Army and Navy medical regulating agencies and using medical facilities to establish and maintain liaison on matters pertaining to the air transportation of Army and Navy patients.

(5) Medical supply for Air Force units.

16. Joint Medical Regulating Office

A joint Medical Regulating Office (JMRO) will be established as part of the Joint Medical staff of the unified command.

a. Organization. The JMRO shall consist of medical service representatives as designated by the Commanders of the service component forces in the unified command. One of the medical service representatives will be designated as Chief, JMRO, by the Unified Commander.

b. Mission. The JMRO will regulate the flow of sick and wounded within and from the unified command area in accordance with policies enunciated by the joint medical staff of the unified command. To accomplish this mission the JMRO will—

(1) Recommend overall doctrine, policy procedures and guidance for the issuance of patient movement directives.

(2) Maintain direct technical liaison with medical regulating officers at levels down to and including sections of the Army communications zone.

(3) Maintain direct liaison with appropriate transportation agencies or their representatives at unified command or component force levels on matters concerning the movement of patients within and from the unified command area.

(4) Obtain necessary reports of bed availabilities in medical treatment facilities from the surgeons of the service component forces.
(5) Obtain and consolidate current and projected estimates of evacuation requirements from the unified command to the continental United States and transmit this information to appropriate agencies in the unified command and in the continental United States.
(6) Establish direct technical liaison with the Armed Services Medical Regulating Office (ASMRO), Washington 25, D. C.

17. Evacuation

a. Policy. It is the policy of the Department of Defense that, in both peace and war, the transportation of patients of the Armed Forces shall be accomplished by aircraft when air transportation is available and feasible.

b. Aeromedical Evacuation Airlift Allocations. Component force commanders will include their aeromedical evacuation requirements in their overall airlift needs to the Joint Military Transportation Board of the unified command. The transportation board takes cognizance of these aeromedical evacuation requirements in making their allocations of airlift to the component forces. The transportation board in making overall allocations takes cognizance of aeromedical evacuation policies regarding relative priority of aeromedical evacuation as directed by the unified commander.

(1) Maximum utilization is made of the outbound airlift capability generated by inbound delivery of combat logistic support to component forces in planning and implementing aeromedical evacuation.
(2) Where outbound airlift is not adequate to meet theater aeromedical evacuation requirements within the area, additional aircraft will be made available on a priority basis for this necessary airlift. The air component commander will prescribe the priority classifications to be used to accomplish the rapid and effective air movement of specific evacuees within the airlift percentage allocations made by the transportation board. Determination of air movement priority for specific evacuees will be the responsibility of the medical officer making the air movement request (par. 55).
(3) Flights transporting medical evacuees normally will be designated specifically as aeromedical evacuation flights, and such flights will be moved ahead of other air traffic.

CHAPTER 2

ARMY MEDICAL SERVICE IN AN AREA OF OPERATIONS

Section I. GENERAL

18. Mission

The mission of the Army Medical Service in the area of operations is to contribute to the success of the military effort through the provision of adequate medical and dental care as follows:

a. Military strength is preserved by seeing that only the fit take the field, by the protection of troops against unnecessary hazards to health, and by effective care and early return of patients to duty.

b. Patients within any combat unit restrict its movement. Lack of care and proper evacuation reduces the soldier's willingness to take necessary risks. Both can be prevented by adequate medical aid and rapid, orderly evacuation.

c. The dental service in the area of operations assists in the preservation of the strength of the military forces by maintaining the dental oral health of military personnel. This mission is accomplished by the establishment of a network of dental services in order to prevent excessive rearward evacuation for routine or emergency dental treatment.

19. Functional Organization

Army Medical Service in an area of operations breaks down into four distinct and mutually supporting levels, so named as to designate the agency responsible for the performance of such services. These are unit medical service, division medical service, field army medical service, and the medical service of the communications zone. The first three levels provide service for tactical units in the combat zone and are made up principally of mobile medical units. Medical service of the communications zone is characterized by large fixed hospitals which afford detailed and prolonged medical care for the sick and wounded, and for the medical logistical support of combat zone medical service.

20. Operational Pattern Simplified

Before considering in detail the various components of the Army Medical Service, one patient from an infantry regimental area in an infantry or airborne division will be followed from the battle-

field through the chain of medical evacuation until he reaches the rearmost medical installation within the area of operations.

a. Unit Medical Service. Wounded on the battlefield, the soldier first receives medical aid from the company aid men who have accompanied his unit into action. Next, he is picked up by litter bearers who carry him from the battlefield to a battalion aid station, normally located from 300 to 800 yards behind the front lines. Here he will receive such emergency care as is essential and will either be returned to his unit or prepared for further evacuation. If continued evacuation is necessary, he is transported to the rear by ambulances or litter teams of the collecting platoon of the regimental medical company which have come forward to evacuate the battalion aid station. Their destination is the regimental collecting station, located from 1,200 to 3,500 yards back of the front. Here, the soldier is examined, given such medical care as may be necessary, and either returned to duty or prepared for further evacuation. All activities described, from the company aid men to the regimental collecting station, are performed by the regimental medical company.

b. Division Medical Service. If evacuated, he is transported by ambulance of the medical battalion to the division clearing station. This unit ordinarily is located from four to seven miles behind the front lines, and constitutes the most rearward medical installation of the division. Here the soldier is carefully examined. If his injuries are such that he may be restored to combat duty in the division area, within the time limits established under current policies, he may be treated and returned to his unit for full duty. Otherwise, he will be moved to a rearward medical installation of the field army having the personnel and equipment needed for more complete care.

c. Fild Army Medical Service. If the condition of the patient is such that further movement would jeopardize either life or limb, he is classified as nontransportable and is transferred from the division clearing station to a nearby mobile army surgical hospital. Here is performed such treatment as is necessary to prepare him for evacuation. He is then taken by motor ambulance or light aircraft to an army evacuation hospital. Army aircraft are normally utilized for the evacuation of nontransportable patients from battalion aid or regimental collecting stations to mobile army surgical hospitals or evacuation hospitals within the combat zone. Patients classified as transportable at the clearing station do not go through the mobile army surgical hospital, but are normally evacuated by field army ambulance to an evacuation hospital.

d. Medical Service of the Communications Zone. If it is not possible to salvage the patient for further duty within the time limits established under existing policies, he is evacuated to fixed hospitals of the communications zone. Here, he will find a large hospital staffed and equipped to give compleet medical and surgical care. If it is felt that he can be returned to duty within the maximum period of hospitalization; i.e., that period established as the unified command evacuation policy, he will remain and be treated until ready for full military duty. If he cannot be salvaged for further duty in the theater within the time limits established by the unified command evacuation policy, he will be sent for further hospitalization and treatment to the zone of interior.

Section II. UNIT MEDICAL SERVICE

21. General

Unit medical service is furnished by the organic medical service personnel who serve with certain units of the arms and services of the size of a separate battalion or larger. Under combat conditions, unit medical personnel collect and provide emergency medical treatment to patients of their unit, evacuate such patients to aid stations, and operate such aid stations. In noncombat situations, they provide dispensary service within their respective units and evacuate the sick and wounded to such installations as may be designated for their care. The senior Medical Corps officer of the unit is the unit surgeon and advises the unit commander on matters of sanitation, disease prevention, and other functions pertinent to the medical service.

22. Regimental Medical Company

Organic to the infantry regiment is the regimental medical company consisting of a company headquarters, three battalion medical platoons, and a collecting platoon. Each battalion medical platoon is organized to provide medical service for one infantry battalion, including the establishment and operation of a battalion aid station. The collecting platoon evacuates the battalion aid stations of the respective battalions and other nonbattalion elements of the infantry regiment.

a. The company commander of the regimental medical company is both the unit commander and the regimental surgeon on the staff of the regimental commander.

b. The commanders of the three battalion medical platoons occupy similar positions with respect to the commanders of the bat-

talions to which they are attached. For more detailed information concerning the regimental medical company, see FM's 7–30 and 8–10.

Section III. DIVISION MEDICAL SERVICE

23. General

Evacuation of patients from the regimental collecting station to the rear is the responsibility of division medical service. Division medical service is performed by the division medcal battalion.

24. Division Surgeon and Dental Surgeon

The division surgeon normally is the senior Medical Corps officer assigned to a division. As division surgeon he is a special staff officer of the division commander, and all of his duties and responsibilities are staff functions. He has general technical supervision over the entire medical service of the division except the dental service. The division Dental Surgeon has a similar responsibility for the dental service of the division.

25. Division Medical Battalion

The division medical battalion, which is organized into a headquarters company, an ambulance company, and a clearing company, operates in the rear of the regimental medical companies and completes the medical service for the infantry division. The battalion commander is not a member of the special staff but is concerned solely with the command of his battalion. The primary missions of the division medical battalion are as follows:

a. The evacuation of patients from the regiments and other division troops.

b. The establishment and operation of a clearing station(s) for the sorting, treatment, and care of these patients until such time as they are either returned to duty or evacuated.

c. The furnishing of medical supplies to all units of the division.

d. In noncombat situations the furnishing of necessary ambulances to units of the division. When garrisoned in the field, clearing station service may be rendered to the unit dispensaries. In an installation, dispensary service is furnished to units of the medical battalion.

e. In special situation the medical battalion assumes temporary responsibility for evacuation of patients to medical units of the field army.

26. Reference

For complete information concerning the medical service of infantry, airborne, and armored divisions, see FM 8–10.

Section IV. FIELD ARMY MEDICAL SERVICE

27. Mission

The fundamental missions of field army medical service are—

a. To retain, within the field army area, those patients who are salvageable for duty in the combat zone, and to prepare those patients who cannot be returned to duty for evacuation to the communications zone.

b. To relieve the division medical services of their patients so that these medical services can retain maximum mobility.

c. To reinforce the organic medical service of divisions when necessary.

d. To furnish direct medical support to the unit medical service of army troops.

e. To provide for the sorting, hospitalization, and preparation for further evacuation of those patients collected from unit and division medical services.

f. To provide medical logistical support to major components of the field army.

g. Aeromedical evacuation within the combat zone, to include battlefield pickup of patients, their air transport to initial point of treatment and any subsequent move to hospital facilities within the combat zone.

h. To conduct special investigations as may be required and make recommendations regarding the health of all troops.

28. General Organization

The component parts of field army medical service are—

a. The medical and dental sections of army headquarters, under the direction of the field army surgeon and field army dental surgeon.

b. Field army medical units, consisting of evacuation and holding elements, hospitals, supply installations, preventive medicine units, and miscellaneous Army Medical Service elements.

c. Unit medical personnel of the medical detachments with units of army troops that are authorized such detachments. Under current directives, those units of army troops which normally operate forward of the corps rear boundary are authorized such detach-

ments. Units of army troops which normally operate in the army service area are normally provided unit medical service upon an area basis, through the establishment of appropriate types of dispensaries and attachment of medical detachments.

29. Corps Medical Service

The component parts of the corps medical service are the corps medical detachment and the medical section of corps headquarters. When a corps is operating independently, its medical service follows the same pattern as that described for the field army. When the corps is functioning as a component of a field army, it assumes such functions of the medical service as may be decentralized to it by the field army commander. Under the latter operational concept the field army is responsible for providing medical service to all troops in the corps area except unit medical service for troops with organic medical detachments.

30. Field Army Surgeon and Dental Surgeon

The field army surgeon is a special staff officer of the field army commander and, in addition, normally has operational control over all medical units (except dental) of the field army not assigned or attached to a subordinate command. In general, he directly supervises all medical service (except dental) for which the army commander is responsible and exercises full authority over the technical aspects of field army medical service. He maintains close contact with the theater army surgeon and the communications zone surgeon, keeping them informed of the medical situation in the field army and of plans for the employment of field army medical service in developing operations. The field army dental surgeon has similar responsibilities for the dental service of the field army.

31. Field Army Medical Units

The more important medical units of the field army are—

a. Motor ambulance companies, helicopter ambulance detachments, collecting companies, clearing companies, and holding companies; the function of these units being to collect, evacuate, and concentrate patients received from division and from units of corps or army troops.

b. Mobile army surgical hospitals, evacuation hospitals, and convalescent centers to care for patients while within the field army zone of responsibility.

c. An army medical depot to procure, store, and distribute medical supplies throughout the field army area.

d. Various specialized units such as headquarters and headquarters detachments, preventive medicine companies, veterinary food inspection detachments, and numerous small service support detachments for such functions as optical repair, and other specialized support.

32. Reference

For detailed information concerning field army medical service, see FM 8–10.

Section V. MEDICAL SERVICE OF COMMUNICATIONS ZONE

33. Mission

The major missions of the medical service of the communications zone are—

a. To retain in the theater those personnel who are salvageable for further duty.

b. To relieve the field armies in the combat zone of their casualties.

c. To provide medical service to troops within the communications zone.

d. To provide for the hospitalization and treatment of those patients received from both the combat zone and the communications zone in accordance with established policies.

e. To procure, store, and distribute medical, dental, and veterinary supplies in accordance with established policies.

f. To conduct special investigations and make recommendations regarding the health of all troops.

g. To compile medical statistics pertaining to the communications zone and for all army forces within the theater when directed.

34. General Organization

The medical organization of the communications zone is subject to extreme variation, depending upon its size and location and upon the type of operation. The communications zone for a small theater may be undivided. When the territorial area in and the administrative support missions of the communications zone become so large as to make centralized control difficult, subdivision usually occurs. As a minimum, a base section and an advance section of the communications zone then become operational under the communications zone headquarters. In large communications zones, it may be desirable to create an intermediate section between the advance and base sections. This may be either an area surround-

ing the line of communications through which supplies and reinforcements move, or it may develop depot and storage areas. Further, in special cases where advance, intermediate, or base section areas or operations do not lend themselves to single centralized operational control, subordinate districts within the section may be formed. The appropriate sized logistical command provides a trained headquarters and staff for subdivisions of the communications zone. Normally, the following basic elements of the Army Medical Service are present:

a. The communications zone surgeon and dental surgeon with their staffs.

b. The surgeon and dental surgeon with their staffs of the various logistical commands providing headquarters for subdivisions of the communications zone, when subdivision occurs.

c. Communications zone medical installations concerned with evacuation, holding, hospitalization, preventive medicine, supply, dispensary service, and other medical supporting installations such as laboratories, diagnostic, therapeutic, and administrative units of the Army Medical Service. These installations are normally under the operational control of the communications zone surgeon (dental surgeon for dental installations) in undivided communications zones. When subdivision has occured, the surgeon and dental surgeon of the logistical command operating the subdivision normally has operational control of medical and dental installations located within the area of that command.

35. Communications Zone Surgeon and Dental Surgeon

a. The communications zone surgeon is the medical member of the special staff of the communications zone commander. He exercises general technical supervision over the medical service (except dental) of the communications zone. The responsibilities and functions of the communications zone surgeon vary considerably, dependent upon the geographical size and location of the theater; the extent to which administrative functions are delegated to the communications zone commander by the theater army commander; and the extent to which the communications zone commander decentralizes operations to his subordinate commands. The communications zone dental surgeon has responsibilities for the communications zone dental service similar to the responsibilities of the communications zone surgeon for the communications zone medical service.

b. In a normal airborne or amphibious assault which develops into an extensive operation all administrative support units and installations are initially under the command of appropriate com-

bat commanders. When a combat zone rear boundary is designated, a communications zone advance section is established in rear thereof and any communications zone type units or installations which had been under control of the combat commanders pass to the advance section commander. On the other hand, when circumstances make it desirable, all internal field army service operations as well as all external direct service support of the army may be pooled under a logistical command commander. This command develops the beachhead area. After establishment and development, this command retains those elements of extrnal direct service support of the field army and becomes a communications zone or a subdivision thereof. The surgeon of the field army or of the logistical command supervises the technical service operations of all medical and dental units attached or assigned as above outlined.

36. Evacuation

The evacuation of patients from the combat zone to the communications zone is accomplished by utilizing both air and surface transportation.

a. Patients are moved intermittently in large masses by train, plane, ship, and vehicles. As the availability of such transportation determines the extent to which adequate evacuation can be carried on, it is imperative that the communications zone surgeon continually forecast requirements for ground, air, and sea evacuation.

b. During amphibious operations, evacuation by ships and landing craft is utilized to the utmost and is supported by air evacuation when landing strips are available.

c. To insure the maximum utilization of evacuation means and to provide medical care for patients while awaiting surface or Army air transportation, medical holding units are established. These holding elements are initially established and operated by field armies. However, as soon as practicable, the communications zone relieves field armies of the responsibility for such installations.

d. The armies of the combat zone notify the communications zone of their ground evacuation requirements and the communications zone then provides the necessary personnel and equipment for ground evacuation.

e. Field army and communications zone submit commanders their aeromedical evacuation requirements through the area of operations army channels to the Joint Military Transportation Board. Air Force Troop Carrier provides the necessary aircraft,

personnel, and equipment to accomplish the required casualty air transportation. Direct communication between Army and Air Force medical agencies is authorized to coordinate details concerning patient air transportation.

f. Patients to be evacuated from an oversea command by air transportation will be transferred to an Air Force aeromedical evacuation embarkation facility at an aerial port. Military Air Transport Service (MATS) will provide aircraft and medical attendants for the air transportation of patients from the oversea command to the zone of interior.

g. Military Sea Transportation Service (MSTS) will provide for water transportation of patients from the oversea area to the zone of interior.

h. The responsibility of the communications zone commander for movement of Army patients ceases when patients are delivered to an Air Force aeromedical evacuation embarkation facility, or are received on board a ship for transportation to the zone of interior.

37. Medical Regulating

a. The surgeon of the communications zone (Com Z) and the Surgeon/s of the Army group/s must jointly agree on an effective operating procedure to promote a rapid orderly flow of patients from the combat zone to the Com Z. In practice these officials may delegate actual detailed operations to the Surgeons of Field Armies and Surgeons of appropriate sections of the Com Z.

(1) These detailed operations normally are accomplished through the Com Z medical regulating officer by direct liaison with medical regulators of the sections of the Com Z.

(2) The Com Z section medical regulators will obtain daily evacuation requirements from the Army medical regulators they support. This information should include the location of each army hospital or medical holding company, the number of patients in each and the number of patients awaiting evacuation.

(3) The Com Z section medical regulators, coordinating with JMRO and area transportation agencies, will obtain the necessary transportation needed to supplement organic means for the evacuation of patients from the combat zone to the Com Z.

(4) The Com Z section medical regulators will notify the Army medical installations to be evacuated of the time, the place, and the type of transportation being furnished,

and will notify the receiving medical installation, within their area, of the time, the place, and the number of patients being evacuated.

b. Under certain conditions, deviations from the foregoing, which are in no way prejudicial to the general pattern of evacuation as outlined, may be instituted by the area army chief surgeon, with mutual agreement between the surgeons of the combat and the communications zones, whenever such deviations are considered to be in the best interest of the evacuee and whenever they effect the maximum utilization of available facilities.

38. Hospitalization

The communications zone provides hospitalization for all Army patients originating therein and for those received from the combat zone. It is essential to anticipate hospitalization requirements and to begin construction of hospital facilities well in advance of the time they are to be occupied. Hospitals of the communications zone are characterized by their immobility. Except when located in existing hospital plants, communications zone general and station hospitals require many weeks for development to the stage at which they can function normally. They are dependent upon the availability of engineer technical assistance, labor, and supplies; and, once having been established, can be moved only with great difficulty, time-consuming effort, and a loss of available fixed beds within the theater. It must be emphasized that these hospitals are equipped with sufficient tentage to perform their missions. Situations wherein use of this tentage will expedite performance of the mission must be considered. When these situations exist, tentage will be used. Hospitals of the communications zone are classified and organized on the basis of bed capacity, type and extent of medical care performed, and the primary mission for which they are responsible. Types of hospitals are—

a. General hospitals, which are fixed installations of 1,000-, 1,500-, and 2,000-bed capacity designed for complete or specialized treatment of all types of Army patients.

b. Station hospitals, which are fixed hospitals having capacities of from 25 to 750 beds and normally are designed to give medical care to Army patients originating within the communications zone.

c. Field hospitals, which have a normal bed capacity of 400 patients when operating as complete units and normally provide hospitalization to troops in the communications zone when temporary hospital facilities are required. Field hospitals are considerably more movable than station hospitals since they are equipped

with field-type equipment in lieu of the bulkier and less movable station-type equipment. The field hospitals possess a unique advantage in that they may be divided into three separate hospitalization units of 100-bed capacity, each of which is capable of separate operation. These hospitals may be utilized to perform a variety of functions as may be dictated by the situation, such as temporary hospitalization for transitory troop concentrations, and facilities for the handling of neuropsychiatric, venereal, or communicable disease patients.

d. Holding units, utilized for the care and treatment of patients at appropriate locations.

e. Convalescent centers which have a rated capacity of 3,000 patients and provide convalescent facilities for patients who require additional reconditioning before they are returned to duty.

f. Hospital centers, which are groups of two or more general hospitals and other medical units, are organized to facilitate the evacuation and specialized treatment of patients and to affect an economy in the utilization of personnel and equipment.

39. Medical Planning

In the basic planning of the medical service of the communications zone, there are numerous technical factors that must be considered:

a. The theater evacuation policy which specifies the maximum number of days of allowable hospitalization within the theater.

b. Intra-theater evacuation policies which specify the time limits that patients may be held in any specific area or installation within the theater and thereby provide a means of controlling the unnecessary loss of personnel at the various levels of medical service.

c. Hospitalization planning for the establishment of the fixed bed requirements of the theater.

d. Daily admission rates, accumulation factors, dispersion factors, additional fixed bed requirements, and organization and equipment requirement planning. For an explanation of these, see chapter 5, and FM 8–10.

e. Medical facilities to include the overall determination for the utilization of buildings or tentage and the service utilities available.

f. Medical supply to include extension of overall supply support requirements reflected by the direct basis dispersion factors and operational plans.

g. A broad preventive medicine program designed to insure maximum protection for the health of the command.

40. Medical Supply

a. It is a responsibility of the communications zone surgeon to determine the requirements for, and to procure, medical, dental, and veterinary supplies within established policies. He is also responsible for the supervision of the operation of medical depots and medical sections of general depots, including the storage, distribution, issue, and documentation of supplies, the supervision of medical maintenance and repair facilities, and the processing of captured medical supplies.

b. The communications zone surgeon is further responsible for coordinating and integrating medical supply planning with all other planning of his service and with that of other interested services. A knowledge of the overall theater troop basis and of long and short-range operational plans is essential to the formulation of a proper supply plan.

41. Reference

For a complete and detailed study of all aspects of communications zone medical service, including evacuation, hospitalization, medical supply, etc., see FM 8–10, part III.

CHAPTER 3

NAVY MEDICAL SERVICE IN AN AREA OF OPERATIONS

42. General

a. In an area of operations, the Navy maintains Naval Operating Forces, Marine Corps Forces, and the bases from which these forces operate. The naval medical and dental services must be organized to provide (1) adequate medical and dental services and logistic support for Navy personnel ashore and afloat, (2) evacuation by water and by air, and (3) medical and dental service peculiar to the Marine Corps.

b. In order to accomplish the above missions ashore the Navy has developed the Advanced Base Functional Component System. An advanced base functional component is a packaged grouping of personnel and/or material designed to perform one of the specific tasks of an advanced base. Thus an advanced base unit is a grouping of many advanced base functional components so arranged as to establish a specific type of advanced base. The flexibility of this system may be seen by the various groupings of advanced base functional components to form a repair base, an air station, a medium all-purpose naval base or a communications station. In each of these the applicable type medical and dental components would be included.

c. To accomplish the stated missions afloat, all but the very smallest craft have medical personnel and facilities aboard. The four type ships that are most capable of caring for casualties are (1) the Hospital Shop (AH), (2) the transports fitted for evacuation of wounded (APH), (3) the attack transports (APA), and (4) the Landing Ship Tank (Casualty Evacuation) (LSTH). These, as well as other larger ships, can be augmented by additional medical personnel and supplies when called upon to perform a specific task.

d. These capabilities give the Navy great flexibility of medical support and allow it to concentrate medical service where and when it is required in support of joint oversea operations.

e. In planning Navy medical support in joint oversea operations, however, it is imperative that closest liaison be established between air and ground force surgeons as to the facilities the Navy will be called upon to furnish in the overall conduct of the operation.

f. Command channels vary slightly for Naval forces ashore and afloat. For forces ashore they stem from the area of operations naval commander through area commanders and island commanders (when applicable) to advanced base commanders. These commanders have medical and dental officers on their staffs who plan requirements and coordinate medical and dental support at their particular level. For forces afloat the chain of command stems from the area of operations naval commander through fleet commanders and task force commanders to individual units or ships. These commanders in turn have their staff medical and dental officers coordinate medical and dental support.

43. Medical Services Ashore

a. Naval bases established in an area of operations normally are designated as advanced bases. Their size and composition depend largely upon the functions which they are expected to perform. In turn the number and type of medical and dental installations and facilities provided at a given advanced base depend upon the size and composition of the base.

b. The medical and dental components of advanced bases are assemblies of personnel, supplies and equipment coordinated into efficient working organizations for the provision of medical and dental care and treatment, preventive medicine service, spectacle service and blood service. A listing of the various medical and dental components follows:

G1A	Hospital, 1,000 bed (expansible to 1,500 beds)
G2	Hospital, 600 bed (espansible to 1,000 beds)
G4	Hospital, 200 bed (expansible to 600 beds)
G5	Infirmary, 100 bed
G6	Infirmary, 100 bed, Mobile (Huts)
G6A	Infirmary, 100 bed, Mobile (Tents)
G7	Infirmary, 50 bed
G8	Infirmary, 25 bed
G9	Infirmary, 10 bed
G10	Infirmary, 10 bed, Mobile
G11A	Dispensary, First Aid
G13	Dental Component
G13A	Dental Component Augmentation
G14	Dental Component Mobile
G15	Dental Prosthetic Component
G16	Dental Prosthetic Component, Mobile
G17	Preventive Medicine Vector Control
G18	Preventive Medicine Laboratory
G19	Preventive Medicine Vector Control Material

G20 Spectacle Service Component
G27 Dental Clinic, Large
G28 Dental Clinic, Medium
G29 Dental Clinic, Small
G30 Blood, Collecting, Processing and Distribution
D5P Stores, Medical and Dental

c. Typical advanced bases are the LION, CUB, ACORN and GROPAC.

(1) A LION is an advanced base unit consisting of all the personnel and material necessary for the establishment and operation of a medium sized advanced naval base. Its medical and dental components would consist of:

1–G1A 1,000 bed hospital
1–G7 50 bed infirmary
1–G17 Preventive Medicine Vector Control Unit
1–G18 Preventive Medicine Laboratory Unit
1–G20 Spectacle Service Unit
1–G27 Dental Clinic, Large
1–G29 Dental Clinic, Small

(2) CUBS, ACORNS, and GROPACS are small naval bases, naval air stations, and harbor control units respectively. They each contain medical and dental components necessary for the mission of the unit.

d. All the medical and dental components attached to an advanced base are subordinate to the advanced base commander who has on his staff a medical and dental officer to coordinate the medical and dental logistic support of the base. At this level the senior medical officer and the senior dental officer of the base would probably have additional duty as staff medical officer and staff dental officer respectively.

44. Medical Services Afloat

a. The number of medical and dental personnel and the amount of equipment on various type ships is generally based on the complement and/or the mission of the vessel.

b. Ships ordinarily equipped for casualty handling are the Hospital Ship (AH), the transports fitted and staffed for the evacuation of wounded (APH), the Landing Ship Tank (Casualty Evacuation) (LSTH) and the attack transport (APA) if properly augmented with medical personnel.

c. The Hospital Ship (AH) is the floating hospital of the Navy. It can be compared to an 800-bed hospital with all attending medical and dental personnel and equipment. In the present concept

of use the Hospital Ship will remain in the area of operations, providing the highest level of casualty care and will transfer the convalescent cases to other units leaving the area.

d. The Casualty Carrying Transport (APH) is a transport augmented with additional medical and dental personnel, supplies, material and hospital spaces. After bringing troops to the area of operations, it will receive casualties from the hospital installations ashore and the hospital ships in the area for evacuation.

e. The Landing Ship Tank (Casualty Evacuation) (LSTH) is an LST augmented with medical personnel and supplies. It is used in amphibious landings as an emergency treatment and casualty sorting ship. Its primary purpose is to control the flow of casualties from the beach to the hospital ships and transports so that an equitable distribution is maintained. The senior medical officer of these casualty evacuation control ships, under the direction of the transport division commander, acts as evacuation control officer to triage casualties and distribute them properly among available transports and hospital ships, taking into consideration the casualty handling capacity of different ships and the special services available on them.

f. Detailed employment of the medical facilities in amphibious operations will be discussed under that chapter.

g. It should be borne in mind that any of the larger type Navy ships are limited in their emergency casualty handling capacities only by the number of medical personnel and materiel aboard. If these ships are augmented by surgical teams or additional personnel and supplies, their casualty handling capacities could be greatly increased.

45. Aeromedical Evacuation

In general, aeromedical evacuation by the Navy is limited to the evacuation of personnel over routes of sole interest to the Navy and Marine Corps where the facilities of the Air Force do not provide the service.

a. Tactical Aeromedical Evacuation. In Navy and Marine Corps combat areas Navy and Marine Corps aircraft may trnsport casualties to the initial point of treatment and to hospital facilities within the combat zone. This would include the use of helicopters within a combat area.

b. Strategic Aeromedical Evacuation. The Fleet Logistic Air Wing, at the direction of the operating force fleet commander, will be delegated for the aeromedical evacuation of casualties when the situation warrants.

c. Aeromedical Evacuation Priorities. Aeromedical evacuees are classified according to the urgency of the requirement for air movement as follows:

(1) Urgent: those emergency cases which should be moved immediately as a life-saving measure.

(2) Priority: those emergency cases not requiring immediate aeromedical evacuation but whose condition warrants evacuation in a short period of time—normally within 3 to 6 hours.

(3) Routine: those cases which are not of an emergency nature whose evacuation can be delayed up to 24 hours.

Determination of the priority for air movement will be the responsibility of the medical officer making the air movement request.

46. Medical Service of the Marines

Medical service in a Marine Division differs from that of an Army Division mainly in the organization of the Division Medical Battalion. The Medical Battalion with a Marine Division has a greater capacity for definitive surgical care and hospitalization. Such organization is in keeping with the military organization of a Marine Division which provides for a great deal of self sufficiency in all supporting elements.

a. Unit Medical Service. The service performed by the Unit medical service of a Marine Division is similar to that of an Army Division. The principal differences in organization, are that Battalion Medical Sections are an organic part of the Battalion they serve, and that litter bearers are provided from among nonmedical personnel.

b. Division Medical Service. In contrast to an Army Division, the Medical Battalion is composed of a Headquarters and Service Company and five additional companies which are concerned with casualty care. There are three collecting and clearing companies and two Hospital Companies, all of which are staffed and equipped to give full resuscitation and definitive life saving surgical care.

(1) *Headquarters and service company.* The headquarters and service company of the Medical Battalion contains a battalion and company headquarters section, a medical supply section, a medical records section, and a dental section, whose functions are identical with those organizations in the Army Division.

(2) *Collecting and clearing companies.* Each company consists of a company headquarters, a Clearing Platoon and a Collecting Platoon. Normally, one Collecting and Clearing Company will be assigned in direct support of a regi-

mental combat team. The Collecting Platoon effects the evacuation from Battalion and Regimental aid stations. The Clearing Platoon is capable of establishing a complete sixty-bed surgical installation and normally confines its activities to giving full resuscitation and definitive surgical care to those cases which are classed as non-evacuables.

(3) *Hospital companies.* Each Hospital Company consists of a company headquarters and a hospital section. The two Hospital Companies usually join together to form the Division Hospital, although each is capable of separate action. Their function is to give full resuscitation and definitive surgical care to the limit of their capability and in addition each company can provide hospitalization for up to two hundred casualties whose condition is such that their early return to duty is indicated.

c. Numbered Separate Surgical Company. The organization and equipment of this company is identical with that of the Army semimobile evacuation hospital with the exception of nurses, who are replaced by corpsmen, and with a reduction in the number of trucks. It is considered that this company has the same capability as its Army counterpart, and can be utilized interchangeably in a theater of joint operations.

(1) Inasmuch as there is no corps organization in the Marine establishment, these units are part of Force Troops and when required, may be assigned on the basis of one per division.

(2) During the assault phase of amphibious operations, personnel of this unit may be utilized to re-enforce the medical department of the forces afloat.

d. Force Preventive Medicine Units. These units are part of Fleet Marine Force Troops and consist of—

1 Medical Officer CDR (Force Preventive Medicine Officer)
1 LT MSC—Bacteriologist
1 LT MSC—Entomologist
1 LTJG MSC—Public Health
14 Enlisted Hospital Corpsmen

All or part of these units may be assigned in direct support of a division to advise on preventive medicine measures and to superintend large scale methods of disease control.

e. Aeromedical Evacuation in a Marine Division. Air evacuation in the Marine Division differs from that in the Army Division, in that there is a VMO squadron containing both liaison and heli-

copter aircraft organic to the division. There is also an Air Wing normally in support of a division, which contains a fixed wing transport squadron and a helicopter squadron.

(1) While none of these aircraft are set aside specifically for casualty evacuation, first priority is given to evacuation requirements whenever possible. Control of evacuation is through command channels after the initial request is made by the Medical Department.

(2) Air evacuation to facilities outside the division area is accomplished by the Air Force as required, in addition to the transport squadron of the supporting Marine Air Wing.

f. Dental Service of the Marines. Dental service of the Marine Corps is provided for Fleet Marine Force Units and Marine Support Facilities. The Fleet Marine Force is composed of Divisions, Aircraft Wings and Force Troops; the Marine Support Facilities are Marine Recruit Depots, Marine Bases, Marine Air Stations and Depot Facilities.

(1) Dental service for Marine Divisions and Force Troops is provided by Dental Companies activated as Force elements on the basis of one per Marine Division and one per Force Troops. Personnel nominated by the Bureau of Medicine and Surgery and the Bureau of Naval Personnel to Dental Companies are ordered directly to either Fleet Marine Force Atlantic or Fleet Marine Force Pacific for duty, thereafter the Commanding General, Fleet Marine Force Atlantic or Pacific may order, attach and/or utilize the Companies, Platoons, Sections or individuals thereof, in areas as necessary. This governing policy assures the Commanding General, Fleet Marine Force, of maximum simplicity, flexibility and efficiency in exercising his military command and coordination control over dental service support in Fleet Marine Force Units. At division level simplification is further extended since the individual dental officers, specialists and dental technicians, platoons and sections of the company, or combination thereof, may be assigned by the Division Commander when requested by component unit organization (large or small) for purpose of reinforcement. This flexibility is extended further under certain conditions to employment of the company, or parts thereof, at a staging point to meet temporary overloads. Maximum dental manpower economy is maintained by utiliz-

ing dental personnel in their specialty, namely dentistry, and by facilitating rotation in professional fields (prosthodontic, oral surgery, general dentistry, treatment of maxillo-facial injuries, etc. Under a clinic system, yet keeping control of centralization, consolidation and/or degree of dispersion as the situation demands. This procedure minimizes personnel requirements, conserves physical facilities, and assures maximum dental output. The Dental Company is capable of its own personnel reporting, but additional administrative support is provided by the parent Fleet Marine Force Unit. The Command to which attached exercises command and coordination control, but the Fleet Marine Force Commander retains administrative control. Logistic Support is furnished by the command to which the Dental Company is attached.

(2) Dental service for a Marine Aircraft Wing is provided by the Wing Dental Section which is a component of a Marine Air Base Squadron, Marine Wing Service Group. The Wing Commander exercises command and coordination control of this unit. The Wing Dental Officer, who is the Officer in Charge of the Wing Dental Section when the Wing Headquarters and the Wing Service Group are physically located together advises the Wing Commander regarding policies pertaining to dental support for the Marine Aircraft Wing. The Wing Commander will order, attach and/or utilize the Wing Dental Section, units, or individuals thereof in areas where necessary, or to groups ordered to detached duty as required. Administrative control and logistic support is furnished by the Service Group Commander.

(3) Marine Support Facilities Dental Service.

(*a*) Dental Service for Marine Recruit Depots, Marine Bases, Marine Air Stations and Depot Facilities is provided in the same manner as Navy Shore Based Facilities.

(*b*) The governing policies are analogous pertaining to command, coordination, administrative and management control.

CHAPTER 4

AIR FORCE MEDICAL SERVICE IN OVERSEAS AREAS

Section I. GENERAL

47. General Considerations

In an oversea unified command, there is normally one major Air Force component organized with subcommands and numbered air forces to perform its mission. There is no rigid organization prescribed for major air commands. Their functional components usually include tactical air forces, air defense forces, support for strategic air operations, and depot and service support. The mission of a major air command governs its composition as to types of air forces, air divisions, and subcommands and the actual assignment of fighter, bomber, reconnaissance, troop carrier, air defense, and service support units to each of them. The operation of the medical service is fundamentally the same, regardless of variations in organization. The oversea major Air Force component operates its own complete hospitalization system. The medical service of the major Air Force component consists of three broad functional categories plus miscellaneous special units. First is the medical care provided Air Force tactical units by organic "non-fixed" medical elements. Second is the medical care provided by "fixed" type medical treatment facilities for nontactical units and bases, area type hospitalization; and advanced diagnostic study or specialized therapeutic procedures. Third is aeromedical evacuation for all Services except as indicated in paragraph 15*a* and *b*. Ancillary services are provided by special cellular type medical units.

Section II. BASE LEVEL, AREA, AND SPECIALIZED MEDICAL SERVICE

48. Medical Treatment Facilities

Air Force base medical treatment facilities will be operated by a numbered hospital, infirmary, or dispensary unit assigned to the highest echelon exercising command of the installation, normally the wing. Medical treatment facilities are classified as fixed or non-fixed depending upon the type of medical support required for a specific installation, command, or area.

a. Non-Fixed Medical Treatment Facilities. Medical treatment facilities classified as non-fixed are provided by tactical hospital

and infirmary, or mobile dispensary units that are organic or assigned to tactical units and normally are established only in an oversea area. Non-fixed medical treatment facilities are not normally established at Air Force Bases in the Continental United States or at equivalent type installations oversea in peacetime. Tactical type medical units organic or assigned to tactical wings, etc., will not normally operate fixed medical treatment facilities.

b. Fixed Medical Treatment Facilities. Medical treatment facilities classified as fixed are established at installations within the Continental United States and oversea to provide base level, area, or specialized medical service upon authorization of the Chief of Staff, USAF (see AFR 160–73). Example: USAF Hospital, Nagoya Air Base. Fixed facilities are normally operated by nontactical type USAF Hospital, infirmary, or dispensary units. The fixed medical treatment bed requirements of an installation or area are computed in terms of total fixed beds—not in terms of medical units assigned or employed at an installation or in a specific area.

49. Medical Treatment Units

Medical treatment units are distinguished from other medical service units in that they are designed and organized to provide personnel and materiel to operate medical treatment facilities classified as fixed or non-fixed.

a. Tactical Medical Treatment Units. Tactical type medical treatment units are mobile or air transportable units organic or assigned to tactical wings or other tactical units. These tactical medical units are highly flexible and are capable of being subdivided into elements adaptable to rapid movement with combat units. The tactical medical unit is designed, staffed, and equipped to operate non-fixed medical treatment facilities. The term "tactical" will be used in the official designation of all tactical hospital and infirmary units, and the term "mobile" with all dispensary units that are organic or assigned to tactical wings or other tactical units to operate non-fixed medical treatment facilities, Example: 463d Tactical Hospital; 721st Mobile Dispensary.

(1) In each tactical wing, the senior medical officer is designated as the medical adviser to the wing commander. This medical officer is the wing surgeon. The wing surgeon has a dual capacity. He supervises all medical activities within the wing and, as commanding officer of the wing tactical medical unit, is directly responsible to the wing commander for all matters pertaining to command and administration of the tactical medical unit.

(2) The tactical wing medical unit operates a non-fixed medical treatment facility for the wing of which it is a component. Aviation medicine elements are provided by tactical medical units on the basis of one per tactical or combat squadron. The wing medical unit also has responsibility for local preventive medicine activities, medical evacuation, dental service and veterinary service.

b. Nontactical Medical Treatment Units. Nontactical type medical treatment units are nonmobile units designed, staffed, and equipped to operate fixed medical treatment facilities established in the Continental U. S. or oversea by authorization of the Chief of Staff, USAF. The unit designation will be consistent with the type of facility operated; i.e., a numbered USAF hospital unit will operate a USAF Hospital_____Air Force Base. The term "USAF" will be used in the official designation of all nontactical medical units activated to operate fixed medical treatment facilities. Air Force patients are moved from wing non-fixed medical facilities to larger fixed hospitals when prolonged definitive care or highly specialized diagnostic or theropeutic procedures are required.

(1) Fixed hospitals are organized basically into 100, 150, 250, 500, 750, and 1,000 bed capacities. These facilities may be augmented in 50, 100, 250, and 500 bed increments, and/or by clinical laboratories and diagnostic and therapeutic specialists, affording a wide range of flexibility to meet varying area requirements.

(2) The larger fixed hospitals (250 to 1,000 beds) may be operated as "separate installations" that are assigned to a major air command or numbered air force as required. Under some circumstances, however, air depots may be assigned a large fixed hospital to provide definitive care on an area basis for the combat wings being supported by the depot. When conditions of warfare permit the concentration of large forces in one locality such as a large base complex of several air depots or a major aerial port with extensive associated logistic facilities, more than one fixed hospital may be located in the area and operated as a medical center under the direction of a single commander.

Section III. AEROMEDICAL EVACUATION

50. Aeromedical Evacuation in Oversea Commands

To carry out Air Force responsibility for aeromedical evacua-

tion in oversea areas, the commander of an oversea major air command establishes an aeromedical evacuation system. This system provides: control of the air movement of evacuees by airlift forces, inflight medical care, and intransit staging and embarkation/debarkation facilities, for patients entering or enroute via the system. Responsibility for technical control and technical supervision of the system is vested in the major air command surgeon. The major air commander delegates to the troop carrier force commander responsibility for control and operation of those aeromedical evacuation functions applicable to intra-area airlift operations, including specialized medical units, and facilities organic or assigned to the troop carrier force. Air Force aeromedical evacuation systems are established to accomplish patient airlift as follows:

a. Tactical Aeromedical Evacuation is that system of an oversea combat area that is provided by the oversea major air command, using troop carrier aircraft, to airlift patients from airborne objective areas until ground link up is attained, to airlift patients from points of initial treatment or subsequent hospitalization within the Army combat zone to points outside the combat zone and to airlift patients between points within the Army communications zone.

b. Strategic Aeromedical Evacuation is that system provided by the Military Air Transport Service to airlift patients from oversea areas to the United States or to a temporary safe haven.

c. Intra oversea area aeromedical evacuation systems, in peacetime, are provided by the oversea major air command through the use of transport aircraft assigned to the command, and by use of MATS aircraft over MATS intra-area routes.

51. Functions of Troop Carrier Forces in Tactical Aeromedical Evacuation

Troop carrier forces control and operate the aircraft that provide airlift for intra area tactical aeromedical evacuation. In order to have available an aeromedical airlift capability sufficiently flexible to adjust to needs which vary widely within the limits imposed by economic necessity, aeromedical evacuation must be centralized and integrated in the troop carrier forces. Aircraft include fixed wing types capable of transporting many patients over long distances, and rotary wing aircraft capable of avacuating patients from the most inaccessible areas and from roughest terrain. Troop carrier forces have assigned to them specialized aeromedical evacuation facilities and medical flight crews which provide the medical services required for care of patients in transit. To obtain maximum utilization of troop carrier airlift for

aeromedical evacuation within the short time allowed for aircraft on the ground during turn-around, patient staging facilities are provided. These facilities receive evacuees from medical units in the combat zone and furnish limited medical care for evacuees awaiting airlift. Large intransit aeromedical evacuation facilities are provided to operate in conjunction with air terminals. Intransit aeromedical evacuation facilities of oversea aerial ports are not organic to the troop carrier force but are assigned by the major air commander to the appropriate command operating the aerial port.

52. Aeromedical Evacuation Organization

A specialized aeromedical evacuation unit is assigned directly to the troop carrier air force or air division to provide facilities that are designed, staffed, and equipped to accomplish rapid and effective tactical aeromedical evacuation. The functions and capabilities of this unit are as follows:

a. Aeromedical Evacuation Control. This element provides communications facilities and personnel for controlling the air movement of evacuees within the troop carrier force commander's area of responsibilities, and controls the deployment and operations of casualty staging flights and evacuation flights. It establishes and operates the Aeromedical Evacuation Control Center of the troop carrier force headquarters. It also provides aeromedical control-liaison officers (AECO) for attachment to staff and unit level as required by the Army, Navy, and Air Force.

b. Tactical Evacuation Flights.

(1) Evacuation flights comprised of flight nurses and aeromedical technicians provide attendants and equipment for inflight medical care of evacuees in conventional fixed wing transports.

(2) Evacuation flights staffed with only aeromedical technicians provide inflight medical care for evacuees in troop carrier assault type aircraft.

c. Aeromedical Evacuation Regulating-Liaison Flights. These flights are comprised of an Aeromedical Evacuation Control-Liaison Officer (AECO) and communications and administrative airmen. This element is capable of maintaining liaison between the aeromedical evacuation control center and medical regulating agencies as well as using Service medical activities. Control-Liaison personnel of these flights will be attached to Service medical regulating and medical treatment facilities as required.

d. Casualty Staging Flights. These elements provide personnel and facilities to receive evacuees from medical units in the combat

zone, based on airlift capability, and furnish limited medical care for evacuees awaiting airlift. Normally, casualties will not be held at a staging facility awaiting airlift for more than three hours. These facilities normally will be located on or in the vicinity of an air strip. The basic unit consists of a 25-bed casualty staging facility. Two or more flights can be combined to form large casualty staging facilities with addition of a professional augmentation. The basic 25-bed unit may be split into smaller staging teams when required in forward combat areas. These flights, in various combinations, normally will be provided to support Surgical and Evacuation hospital in an Army combat zone. Casualty staging facilities will also be provided at other required locations in the Army combat zone or communications zone.

e. Intransit Aeromedical Evacuation Facilities. Intransit facilities are established at appropriate air terminals and aerial ports to provide limited medical care for evacuees awaiting further air transportation. These facilities vary in capacity from a 250-bed facility that operates in conjunction with an established hospital to a 500-bed facility that operates separately. Separate intransit aeromedical evacuation facilities are not organic to troop carrier forces but are assigned, by the major air command, to the appropriate command that operates the air terminal or aerial port.

53. Aeromedical Evacuation Control and Operation

The organization and operation of oversea area aeromedical evacuation systems conform with the principle of centralized control and decentralized operations. The major air command surgeon normally limits the exercise of technical supervision and control at major air command level to administrative and supervisory control. Detailed aeromedical evacuation operations except as follows are delegated to the troop carrier force. A chief aeromedical evacuation control officer (CAECO) is appointed on the staff of the major air command surgeon to exercise administrative and supervisory control of the oversea area aeromedical evacuation system, and acts as technical adviser on aeromedical evacuation matters to the Joint Military Transportation Board and the Joint Medical Regulating Office. The CAECO, by direct coordination with Service medical regulating officers, controls the movement of evacuees to intransit aeromedical evacuation facilities of air terminals and aerial ports, not controlled by the troop carrier force, for further air transportation.

54. Aeromedical Evacuation Control Center

a. The control element established by the troop carrier force com-

mander to plan and monitor the airlift commitment includes an Aeromedical Evacuation Control Center integrated with the Transport Movement Control Center. Troop Carrier Force Headquarters liaison officers from the Aeromedical Evacuation Control Center function for aeromedical evacuation as the Airlift Liaison Coordinating Officers do for other traffic. The Aeromedical Evacuation Control Center provides the facility through which technical supervision and operational control over all aeromedical evacuation units and personnel is exercised by the Troop Carrier Commander. The control and liaison personnel of this section are obtained from the Aeromedical Evacuation unit. Aeromedical Evacuation Control and Transport Movement Control are continually monitoring the status of airlift flights through the media of regular reports by Troop Carrier units, air terminals, and aeromedical evacuation units. This insures maximum flexibility and efficiency and gears the system to changing requirements with minimum time loss. By studying the continuous display of airlift status information maintained in the control center, the troop carrier force commander is able to view the effectiveness of his operations, identify unnecessary lost motion, and take remedial action to maintain maximum force effectiveness.

b. The Troop Carrier Command Surgeon exercises control over all aeromedical evacuation activities within the troop carrier commander's area of responsibility. He designates a senior medical administrative officer as Aeromedical Evacuation Control Officer. The Aeromedical Evacuation Control Officer, acting for the troop carrier command surgeon, exercises direct supervision over air evacuation activities by—

(1) Establishing an Aeromedical Evacuation Control Center, in conjunction with the Transport Movement Control Center, as a centralized agency to receive and process requests for aeromedical evacuation. Additionally, he assigns aeromedical evacuation missions to appropriate troop carrier aeromedical evacuation elements in the system.

(2) Establishing technical representation and liaison at all appropriate Army, Navy, and Air Force activities and agencies through the attachment of aeromedical evacuation liaison representatives. Specifically, qualified liaison representatives will be located at field army and communications zone Medical Regulating Sections where they may receive and process requests for air movement of patients, advise the Army surgeon of evacuee airlift capabilities, and act as the direct representative of the

troop carrier commander in matters pertaining to aeromedical evacuation.

(3) Maintaining communications between the various liaison representatives assigned in the field, and all patient staging flights through the various communication facilities available, for rapid transmission of air movement requests, and other information relating to aeromedical evacuation.

55. Aeromedical Evacuation Priorities

While it is true that all aeromedical evacuation should be accomplished with a minimum of delay, as a matter of practical necessity some cases are more urgent than others. It thus becomes necessary to classify all aeromedical evacuees according to urgency of the requirement for their air movement. This priority classification is the responsibility of the senior medical officer of the medical facility which made the evacuation request. Normally, three classifications are employed:

URGENT: This classification will be used for emergency cases which must be moved immediately as a lifesaving measure, or when the tactical situation demands the immediate air movement of patients from a specific location. "Urgent" patient air movement requests will be processed and air movement accomplished ahead of other patient air movement.

PRIORITY: This classification applies to evacuees not requiring immediate aeromedical evacuation but who must be evacuated within a short period of time—normally, within three (3) hours.

ROUTINE: This classification will be used for evacuee air movement within twenty-four (24) hours. Evacuees classified "Routine" normally will be transported by preplanned or scheduled troop carrier airlift.

Section IV. ANCILLARY MEDICAL SERVICES

56. Cellular Units

These medical units, referred to as cellular units, are manned and equipped to provide the more rigidly defined medical facilities with highly skilled specialists on an "as required" basis. These units may be utilized separately or in multiples. The assignment or attachment of these units is normally the responsibility of the surgeon of the major air command or numbered Air Force exer-

cising command of the area concerned. Examples of these services are as follows:

a. Physiological Training. This unit conducts refresher training of Air Force flying personnel in the physiologic aspects of high altitude flying, research studies requiring a low pressure chamber, and is utilized in the physical re-evaluation of duty flying personnel.

b. Veterinary Inspection. Veterinary inspection units are designed to provide a complete service for the inspection of food of animal and non-animal origin, and establishments concerned with their manufacture, preparation, shipment, storage, and serving. They also assist in investigation of epidemics in which there may be evidence of food-borne transmission.

c. Dental cellular units provide general and specialized dental service as required.

d. Diagnostic and Therapeutic. Provides scarce category diagnostic and therapeutic specialists not otherwise authorized.

e. Clinical Dispensary. Provides complete outpatient care and treatment and diagnostic service.

f. Mental Hygiene Unit. Provides personnel for operation of a mental hygiene clinic.

CHAPTER 5
JOINT MEDICAL PLANNING

Section I. GENERAL

57. General

The tactical mission which has been assigned to the combat forces must be the basic consideration of all medical planning. Medical preparations and planning must be initiated early and must be specifically designed to support the tactical operation.

58. Factors

Certain basic factors and premises must be used for sound medical planning. Most important among these are—

a. That a careful medical estimate is of primary consideration in medical planning.

b. That medical and dental staff officers have access to the necessary details of operational planning.

c. That medical and dental staff officers be given full command support for the accomplishment of their tasks.

d. That the medical services of the ground, naval, and air forces be integrated to effect maximum uniformity of effort.

Section II. MEDICAL ESTIMATE

59. General

The same process is followed in the preparation of a medical estimate of the situation as is followed in the preparation of an operational estimate of the situation. The estimate of the situation is an examination of all factors which will affect the accomplishment of the mission. The object is to arrive at a sound decision as to the proper course of action to be adopted. In medical planning the fundamental steps which are taken to arrive at this decision are a consideration of:

a. The medical mission.

b. The medical situation and courses of action, which in this case must include consideration of the medical means available and the medical means required.

c. Analysis of all workable medical plans for the application of these means to the task at hand, in order to select the one plan giving the greatest promise of success.

60. Mission

Broadly speaking, the mission of all medical units is to provide medical service to the forces which they support. In considering the medical mission of any given operation, the planner must visualize the mission to be accomplished by the medical service and its effect upon the accomplishment of the task assigned to the combat force as a whole.

61. The Situation and Courses of Action

a. General Considerations. The wealth of information required before a proper medical estimate can be made renders it essential that the staff surgeon and dental surgeon be thoroughly informed regarding all operations under consideration by the commander and his general staff. The information required constitutes medical intelligence. Some of it will come from higher and adjacent headquarters, but much will have to be secured by the intelligence agencies of the area or force commander. Some of the more important items of information required for the formulation of a medical estimate are outlined in the paragraphs *b* through *d* below.

b. Enemy Capabilities. From the medical planner's viewpoint, these are the enemy's potential powers of inflicting physical damage upon our personnel, and of impeding or prohibiting the evacuation of these patients. Enemy capabilities are proportionate to his strength, combat efficiency, position, weapons, and probable movements. Disease being no respector of sides, poor health among the enemy is also a potential source of patients, and medical service must at times be set aside for the care of prisoners of war and civilian displaced persons. Enemy health conditions are a factor for consideration because enemy health conditions may affect our own forces.

c. Friendly Capabilities. Under friendly capabilities are considered our own strength, combat efficiency, position, weapons, and plan of action. When these factors are considered in relation to the capabilities of the enemy, a preliminary estimate of the patient incidence can be determined.

d. Physical Features.

(1) *Terrain.* The type of terrain over which operations are to be conducted directly affects the incidence of patients. In the problem of patient evacuation, the availability and condition of road nets, landing strips, railroads, harbors, and other geographic features assume an equal importance. Should the operation be amphibious, transfer of

patients from shore to ship may be largely dependent on the condition of the sea.

(2) *Climate.* In addition to the occurrence of such conditions as frostbite, snow blindness, trench foot, sunburn and heat prostration, the staff surgeon is concerned with climate because of its influence on other aspects of the medical service. Excessive precipitation interferes with land and air evacuation and may be a contributory cause in increasing cases of respiratory infection and mental depression. High humidity promotes fungus infections and speeds the deterioration of drugs and medical equipment. These are a few of the many climatic factors which must be considered in medical planning.

(3) *Population, customs, and disease prevalence.* Public health measures to be instituted among civilians in connection with military government are dependent upon a knowledge of the population, its customs, and the diseases which are prevalent. Certain disease control measures among the troops will also be governed by a consideration of these three factors. Medical statistics for the area covering, if possible, a period of several years, are required to make an accurate estimation of the non-battle patients which may be expected. Such statistics should include all information available about types of disease occurring, sources, frequency, severity, and the current results of preventive measures and treatment. Also, the civilian medical and personnel facilities in the objective area must be known, not only for planning public health measures and civilian medical care, but with a view to the assistance which they may furnish to, or require from, our military medical service.

(4) *Insects, animals, and vegetation.* A considerable knowledge of these potential sources of patients is necessary for the establishment of safeguards against them and determination of methods of treatment. Insects, particularly, are important because of their disease carrying capabilities. Detailed information regarding types, numbers, distribution, habits, etc., is essential.

e. Food and Water.

(1) The procurement of food is the function of another service. However, veterinary units of the Medical Service provide complete sanitary supervision of foods from the time of procurement to time of issue to troops. The medi-

cal service is also responsible for sanitation as it pertains to preparation, handling, and serving of food.

(2) The supply of water is likewise a function of another service. However, the sanitary supervision of water supplies from source to consumer is the responsibility of the Medical Service.

62. Preliminary Analysis

The foregoing information permits a preliminary analysis of the situation. From this a preliminary estimate can be made of the probable number of patients, the types of patients, their distribution in time and space, the areas of greatest patient density, and the lines of natural drift of the wounded.

63. Medical Means

From these initial patient estimates a calculation is made of the number and types of medical units, and the amount and kinds of medical supplies which will be required for their care. Then follows a tabulation of the available medical means. These include medical units organic to the combat forces involved; medical units which are available through supporting elements; supply agencies; and the amount of supplies on hand and facilities for their replenishment. Similar estimates based upon the anticipated health situation will be required for preventive medicine personnel units and equipment and supplies for preventive medicine purposes.

64. Courses of Action

The staff surgeon and dental surgeon must then:

a. Determine the various courses of action which are open to him, within the limits of the tactical plan.

b. Determine the probable effect of each enemy capability on the success of each of his own courses of action.

c. Weigh the advantages and disadvantages of each course of action.

d. Decide which course promises to be the most successful in accomplishing the mission.

e. Prepare a recommendation to the commander, of what medical service will be needed, why it will be needed, and where, when, and how it should be employed.

Section III. PLANNING FACTORS

65. General

Basic planning of the medical service of joint oversea operations involves four major considerations: First, plans pertaining ex-

clusively to each of the three medical services; second, plans of each medical service which require coordination with agencies of their respective service; third, plans involving joint action between two or more of the three Services; and fourth, plans involving coordination with other allied forces. All of these plans must be based upon certain basic medical planning factors, which are determined from the medical estimate of the situation and from experience.

66. Personnel Strength by Type

One of the prerequisites for sound medical planning is an accurate estimate of patients, derived by applying patient rates to personnel strengths. Since patient rates differ for each type of personnel, it is not sufficient to know only the total strength of the forces to be employed. Personnel strength must be broken down into the types for which patient rates have been determined. These different patient rates can then be applied to each group total for estimation of patients. At theater level, for example, it might be satisfactory to group personnel strength under the following types:

- *a.* Troops in the Army combat zone, all Services except air crews.
- *b.* Troops in the Army communications zone, all Services except air crews.
- *c.* Troops afloat, all Services except air crews.
- *d.* Air crews of all Services.

67. Patient Rates

Patient rates are statistical averages derived from previous similar experiences, modified when necessary by expected differences between the past operations and projected operations. The two primary types of patient rates used in a theater of operations are those for battle patients and those for non-battle patients. These patient rates are usually expressed as incidence per day per thousand. Thus a battle patient rate of 2.0 would mean that for every thousand men involved, two would become battle patients each day.

a. The patient rate for battle patients normally is broken down according to the types of personnel involved in the operation. The more detailed the breakdown, the more accurate will be the estimate, provided the number of groupings is not so great as to destroy the validity of the individual average rates. For example, it may be feasible to determine the separate battle casualty rates for:

(1) Combat divisions.
(2) Reserve divisions.

(3) Nondivisional army troops in the Army combat zone.
(4) Ground force service troops in the Army communications zone.
(5) Naval forces afloat.
(6) Naval forces ashore.
(7) Air Force air crews.
(8) Air Force nonflying personnel.
(9) Civilian personnel.
(10) Prisoners of war.

b. It is not usually necessary to make so thorough a breakdown for the estimate of non-battle patients, because the variation in rates between the types of personnel is not so marked. However, when the geographical area involved is extensive, the non-battle patient rates may differ sufficiently in various parts of the area to make a breakdown on this basis advisable.

68. Evacuation Policy

This policy is a command decision which designates the maximum number of days during which patients may be hospitalized within the area of operations. Patients who, in the opinion of responsible medical officers, cannot be returned to a duty status within this prescribed period are returned to the Continental U. S. by the first available and suitable transportation, providing such travel will not aggravate their disabilities. An evacuation policy is normally expressed as a specified number of days, such as 30 days, 60 days, 90 days, 120 days, or 180 days. In order to minimize the loss of trained men to the oversea area a minimum of 120 days is considered desirable. The shorter the evacuation policy, the fewer number of fixed beds are required for hospitalization within the oversea area. Limited type operations, such as occur in landings on hostile shores, necessitate evacuation policies of shorter periods, since the hospital beds are not available until suitable construction has been completed. The evacuation policy from oversea areas to the ConUS is determined by the Joint Chiefs of Staff. They normally adhere to a 120 day policy.

69. Accumulation Factors

These are tables of collected statistics which show the rate at which patients will accumulate in hospitals, depending upon the evacuation policy and the patient rate. Accumulation tables are vital in estimating how many hospital beds will be needed in an area of operations, and to a considerable degree, where they will be needed.

70. Dispersion Factor

In computing hospital bed requirements, a margin of 25 percent must be added, because roughly that quantity of hospital beds will be unavailable at any given time because of the necessary movement of hospitals within the oversea area, and because of the segregation of patients essential to proper medical treatment of certain types of cases. This safety margin is called the dispersion factor.

Section IV. COMMAND PROBLEMS

71. General

Before medical planning can continue, there are certain problems which must be resolved by command decision. These concern the evacuation policy and the control of evacuation transportation.

72. The Evacuation-Replacement Balance

The decision in this instance concerns itself with the establishment of an evacuation policy. Every commander has a natural and understandable desire to retain in the overeas area as many of his seasoned and experienced personnel as possible. Such a practice not only maintains a high experience level among his forces but diminishes the load on the replacement system and decreases the requirements for evacuation. However, these advantages can be achieved only by allocating to the medical service much larger slices of transportation space and troop strength, at a time when these are most critical.

73. Evacuation Transportation

Evacuation plans are greatly influenced by the amount of transportation available to the medical service and the degree of control the medical service will have over this transportation. It is a policy of the Department of Defense that, in both peace and war, the transportation of patients of the Armed Forces shall be accomplished by aircraft when air transportation is available and conditions are suitable for air evacuation. The Armed Services will have a continuing requirement for ambulance trains and hospital ships as supplemental and alternative media for handling medical evacuation. Normally, human, animal, and motor and Army Aircraft transportation are available within the medical service for evacuation purposes. Transportation for patients by ships, rail, or other aircraft must be procured from other than medical services. The amount to be made available for evacuation purposes is determined to a large extent by the geography of the

area, the tactical situation, the expected patient rates, and the evacuation policy.

Section V. MEDICAL PROCEDURES

74. General

The next step in medical planning is a determination, based on the medical estimate, of what medical practices, procedures, and policies are best adapted to the specific area of operations or joint oversea operation. In many instances, existing standing operating procedures can be utilized with little or no modification. In other instances, entirely new procedures will have to be devised. In the paragraphs 75 through 82 are illustrations of the broad scope of this phase of medical planning.

75. Selection

The selective procedures which must be considered deal with the kind and timing of physical and mental examinations and inspections necessary to insure that personnel in an area of operations or entering upon a joint overseas operation will be fit for such duty.

76. Preventive Medicine

Under this heading, there are considered such diverse procedures as—

a. Types and timing of immunizations.
b. Types and uses of protective clothing.
c. Types and location of sanitary installations.
d. Adequacy of troop orientation and morale measures.
e. Water purification measures and the processing of local foods.
f. Medical control of venereal disease.
g. Prevention of malaria, typhus, and other epidemic diseases.
h. Insect and rodent control procedures.
i. Protection against injuries due to climate or geography.
j. Medical aspects of construction of shelter and quarters.
k. Instruction of troops in specific individual or group disease prevention measures applicable to the area concerned.

77. Evacuation

All available forms of transportation must be considered, together with the details of patient handling. The routing and control of evacuation movements must be planned as well as the location of evacuation facilities. Thorough investigation of all the available lines of communication is an essential prerequisite to such planning.

78. Hospitalization

Procedures associated with this aspect of medical service include professional care, the location and employment of the various types of hospitals, the times of their opening and closing, their movement, modifications in personnel and equipment and their administrative control.

79. Medical Supply

Here the medical planner determines such matters as types of medical supplies needed, supply procedures, stock levels, and medical supply installations. These, like all other medical procedures, must be determined on the basis of the medical estimate of the situation.

80. Records and Reports

No practice, procedure, or policy can be effective unless adequate control is exercised. Control necessitates records and reports. The medical planner must determine the amount of information essential to the controlling agencies and make provisions to secure this information through the use of a minimum number of medical records and reports.

81. Research

Since there is never a shortage of unsolved medical problems, medical planning must include provisions for as much research as the tactical situation will permit.

82. Training

The decision as to what procedures are necessary for adequate medical service in an area of operations also involves a determination as to the amount and kind of training required for both medical and nonmedical troops before these medical procedures can be put into effective practice. The limiting factors of time and facilities available are important influences on this aspect of medical planning.

Section VI. DEVELOPMENT OF THE MEDICAL PLAN

83. Medical Requirements

Medical requirements may be grouped under the four general headings of personnel, installations, supplies, and transportation. To compute these requirements, statistical factors determined from previous similar experiences and modified in the light of the estimate of the situation, are applied to a specific strength of per-

sonnel or to a specified geographical situation. For example, to compute hospital bed requirements, the formula would be:

> "Expected patient rates × troop strength in thousands × accumulation factor + dispersion factor = beds required"

or to compute quantity of some item of medical supply, the formula would be:

> "Consumption rate × strength of personnel × time = quantity of supply."

84. Allocation of Responsibility

The medical planning has now reached the stage where it has been decided what the job is (the medical estimate of the situation), what techniques will accomplish the job (the medical procedures), and what tools will be necessary (the medical requirements). The final step is the fixing of responsibility as to who will do the job. Ater considering the medical personnel and facilities available to each component of the area of operations or the joint oversea task force, and the various tasks to be accomplished, an allocation of these tasks is made to the individual agency best suited to do the job. This specific fixing of responsibility is the generally accepted form in which a medical plan is presented.

85. The Medical Plan

There are a number of ways in which a medical plan may be formally written. If brief, it may be incorporated as a paragraph in an operations, administrative, or logistical plan; or it may appear as an annex to any one of these three. If extensive, as would be the case in a large amphibious or airborne operation, it may be broken down into separate plans such as a medical mounting plan and a medical service plan.

CHAPTER 6

MEDICAL SERVICE IN AIRBORNE OPERATIONS

86. General

The same principles that govern operations of the combat medical service of forces engaged in normal ground operations also apply to the combat medical service of forces engaged in airborne operations. Airborne medical units must have mobility equal to that of the unit supported. They must accompany the supported troops at all times, and they must provide prompt and efficient medical care and evacuation despite the inherent difficulties in the situation.

a. Careful sorting of patients in all airborne medical installations is essential to prevent the overloading of a medical service that may have to operate for a limited period dependent solely on evacuation by air.

b. After a link-up has been made between the elements of the airborne division and the troops making the main ground effort, the medical service of the airborne division does not differ from that of the infantry division in a normal ground operation. Likewise, upon the establishment of evacuation by air from the airhead, the medical service becomes normal in its function.

c. (1) An airhead being roughly circular with the service elements concentrated in the center; lines of evacuation normally are short. As a result, requirements for ground transportation during the early stages of airborne operations are considerably reduced. However, as the airhead expands and lines of evacuation increase in distance, requirements for ground transportation increase, although such requirements remain somewhat less than for forces of comparable size engaged in normal ground operations. Organic vehicles of the medical service can be delivered to the airhead during the early stages of the assault either by heavy drop methods or in assault aircraft, or by a combination of both.

(2) Depending on the availability of aircraft and landing areas in the airhead, patients may be evacuated by air directly from regimental or division medical installations. Such a plan, coupled with a short term evacuation policy in the airhead, can greatly reduce the require-

ments for medical transportation and service in the airhead.

d. Patients will build up within the airhead until ground link-up is made or evacuation by air begins. If aircraft are available, evacuation by air will begin within a short time after the initial assault. Evacuation from the airhead will be slow during initial stages of the operation, and patients will accumulate. As a result of accumulation of patients during the initial stages of the operation, it may be necessary for airborne medical units to provide more extensive treatment to nontransportable cases, although this is not their normal function.

87. Special Problems

Since joint airborne operations naturally divide themselves into certain chronological phases, it would seem advisable to consider, in turn, the special problems of each phase.

a. Early Decisions. The two interrelated problems arising during this phase of airborne operations are: the amount and type of augmentation with specialist teams which the division medical service will require; and the amount and type of medical support which will be required above the division level. If the airborne force is to be employed for a relatively short period, the patients occurring can readily be held in division medical installations, provided such installations are properly augmented with the necessary medical personnel and equipment. If the airborne force is to be employed for a period of time sufficiently protracted to warrant the employment of mobile surgical hospitals, evacuation hospitals, and other medical units not organic to the division, then the need for augmentation of the division medical service is proportionately decreased. This choice—between augmentation and support—is one that must be made very early in the planning stages of airborne operations.

b. Prior to Takeoff. Assault units are given necessary medical service by communications zone personnel in the marshalling area to permit organic medical elements to prepare for combat. While in marshalling areas, medical service, including dispensary care and evacuation to hospitals especially designated for the reception of sealed-in personnel, will be provided by the responsible military commander.

c. Loading. Because of the strict economy on weight and bulk which must be exercised in connection with all airborne equipment, considerable deletion from the standard allowances of medical equipment usually is necessary in the case of medical units not

organic to the division. Such deletions should aim at the maximum reduction compatible with the efficient professional functioning of the unit involved. The actual loading of medical units in airborne operations will depend on planned employment of the combat forces. Generally speaking, the medical units should be loaded in the same serial with the combat force they are supporting.

d. In-Flight. In the past, little or no medical care has been required or provided for airborne forces while in flight to the airhead. If, in the future, the movement of airborne forces involves long ranges, great speed, and high altitudes, many aeromedical problems will arise in connection with this phase of airborne operations. In addition to the obvious difficulties related to lack of oxygen, temperature changes, and pressure differentials, there will be the additional problem of in-flight feeding, motion sickness, acceleration effects, and most of those physiological stresses formerly limited to air crew members.

88. Planning

a. Responsibilities. As in any other type of joint operation, certain medical responsibilities are unilateral, while others must inevitably be joint. A clear delineation of these responsibilities should be incorporated in the medical plan accompanying the theater directive for the airborne operation. Normal division of responsibilities are—

(1) The Army will provide:
  (*a*) Medical Service to Army personnel in mounting areas prior to enplaning.
  (*b*) Evacuation of patients within the airhead.
  (*c*) Medical service to all personnel landed in the target area until the condition in (3) (*c*) below is fulfilled and of all Army troops thereafter.
  (*d*) Medical service assistance as indicated in paragraph 15*a* (4).

(2) The Navy will provide:
  (*a*) Assistance in the medical aspects of air-sea rescue service in airborne operations over sea.
  (*b*) Aeromedical evacuation as provided in paragraph 13*b* (3) and (4).

(3) The Air Force will provide:
  (*a*) Medical service to Air Force personnel in mounting areas.
  (*b*) Medical care to all troops and evacuees while airborne.
  (*c*) Medical care for Air Force troops in the airhead as soon as an operational airstrip is established.

(*d*) Evacuation of patients by assault and other aircraft from landing strips or landing zones in the airhead back to the mounting areas as soon as operationally feasible until ground link-up is attained.

(*e*) Patient staging facilities at airstrips in the airhead as soon as aeromedical evacuation therefrom is utilized.

(*f*) Medical aspects of air rescue service.

(*g*) Patient staging facilities on air bases in the mounting areas for processing patients returning by air from the airhead.

b. Procedures. The general techniques involved in medical planning for joint airborne operations are the same as those given in chapters 4 and 5. However, the nature of the transportation involved introduces certain complications in planning which require special consideration. The four principal aspects of the medical service in airborne operations which offer particular difficulties are: assembly and loading, aeromedical problems in flight, air evacuation from the airhead, and medical resupply.

(1) *Assembly and loading.* To lift a single airborne division in one day requires several departure airfields. Such wide dispersion of the personnel of an airborne division prior to enplaning makes it difficult to attempt any continuation of the normal division medical service during this period. In order to keep the division medical personnel with those combat elements which they are to serve, it is necessary to split medical battalions and companies into many small detachments. The amount of such splitting will, of course, depend upon the loading plan of the airborne force as a whole, which in turn is influenced by the tactical plan; the number, size, and location of available airfields; the strength and disposition of the enemy; etc. In planning the dispersion of the medical units, care should be taken to avoid the two extremes: one of dividing the medical units so thoroughly that their reassembly in the airhead becomes virtually impossible, and the other of concentrating all medical personnel and equipment in a single serial. Arrangements must be made for providing medical service to the airborne force during this period just prior to enplaning. Obviously, the shorter this dispersion period, the less elaborate are these provisions. Usually communications zones or base medical installations will be directed by the unified command to provide medical service during this period; more rarely, the Air Force medical service may have the necessary facilities.

Since the actual loading of aircraft must conform strictly to the loading plan and air movement tables, the medical planner should make his recommendations for the loading of medical personnel and equipment early enough to be considered in the formulation of these tables. Medical units, being relatively defenseless, should not, as a general rule, be brought into drop zones or landing zones until the zones have been cleared of small arms fire.

(2) *Aeromedical problems in flight.* It will not be feasible or possible to supply medical technicians trained in aviation medicine, aboard each air carrier in airborne operations. If the duration, speed, and altitude of the flight warrant the use of aeromedical preventive measures, it is best to indoctrinate the airborne personnel only in the specific measures required for their particular flight. Such indoctrination can usually be accomplished during the briefing. However, if the techniques are complicated or numerious, it may be necessary to incorporate them in the schedule of training and rehearsals for the specific operation. Whichever method is employed, the instruction should be supervised by the Air Force medical service.

(3) *Aeromedical evacuation.* Detailed coordinated planning is required between the airborne force and the troop carrier force for effective utilization of return airlift from the objective area for the evacuation of patients. The troop carrier force normally will establish a patient staging facility at the forward airstrip in the objective area for the reception of patients to be evacuated by air. The Air Force normally will provide property exchange between the patient staging facility and the airborne medical facilities in the objective area based upon pre-established requirements for priority automatic air shipment of replacement items into the objective area.

89. Training

In no other type of operation is the success of the medical service so dependent upon the development of initiative in individual medical personnel and in medical units than in airborne operations. Such initiative can only be had if all personnel concerned are thoroughly trained in both the theory and the practice of airborne medical service. In addition, for each new projected operation, individual, unit, and joint rehearsals must be held until smooth functioning under all circumstances is assured. While the need for rehearsals shortens the time available for preparation of the

initial medical plan, rehearsals compensate for this delay by exposing any minor flaws that may exist in the plan. To be of value, rehearsals must be as realistic as possible, including the use of simulated patients. Airborne troops of all ranks should be thoroughly indoctrinated in first aid during the rehearsal period. Particular emphasis should be placed upon rendering first aid to patients requiring splints and tourniquets. As a rule, each individual is furnished an additional first aid kit containing a large bandage suitable for a sling or a head bandage. This kit is tied to the helmet or to the suspenders. Rehearsals are particularly important for medical replacements and medical support units who will probably lack airborne experience. Normally, such nondivisional units will be moved into the airhead by assault or transport type aircraft; hence they must be trained in the expeditious loading and unloading of personnel and equipment from these carriers. They must be trained also in assembly after landing and in quickly making contact with the division medical unit they are supporting.

90. Medical Service of the Airborne Regiment

a. General. The medical service of the airborne infantry regiment is organized and conducted in a manner similar to that of the infantry regiment. Only those aspects which are different will be discussed herein. These include aspects concerned primarily with medical service during the assault phase of an airborne attack prior to the establishment of the regimental collecting station. The medical company of the airborne infantry regiment is an airborne unit, and all of its personnel, except food service personnel and the supply NCO, must be parachutists.

b. Loading of Personnel. Key personnel are divided into several planes in order that the loss of one or several planes will not paralyze the medical service. Company aidmen are loaded in the planes with platoons to which they are attached and jump with their platoons. Other personnel of the battalion medical platoon are divided among the planes transporting the battalion. Personnel of the collecting platoon and of the company headquarters are loaded among the planes carrying the other elements of the regiment. Selected personnel are designated to accompany the transportation of the medical company to be brought to the airhead a few hours following the assault.

c. Medical Service During the Initial Phase. During the initial phases of the attack, the situation is confused and the medical service must be fluid. In addition to possible patients caused by

enemy fire, there will be jump injuries to be treated immediately in the drop zone.

(1) Company aidmen treat patients in their zone and move out with their platoons. Any or all of the other personnel of the medical company may be called upon to act as aidmen and treat patients as they occur in the vicinity. The wounded must be well marked and, if possible, assembled in small groups at collecting points or along axis of advance so as to facilitate later evacuation.

(2) Litter bearers assist in assembling the patients at collecting points and, where possible, evacuate them to the aid station or to the collecting station, whichever may be closer.

(3) Battalion aid stations initially are located in the assembly areas with their battalions. The aid station moves out of the assembly area with the battalion when the movement to the battalion initial objective begins. If the initial objective is in the vicinity of the drop zone, the aid station may remain in the assembly area.

(4) The regimental collecting station initially is located in an assembly area. It is routinely placed in the vicinity of the regimental command post, and it moves out when the command post moves out. The collecting station, in addition to taking the patients from the aid stations, acts as an aid station for patients occurring in the vicinity of the command post.

(5) The ability of the units to assemble patients in battalion aid stations and evacuate them to regimental collecting stations in the initial stages of the airborne assault depends on the time of arrival of vehicles to be used for transportation of patients. These vehicles may be delivered either by heavy drop methods with or, more normally, following the parachute echelon, or, if assault aircraft echelon which will follow the parachute echelon in a short period of time, or by a combination of both methods.

(6) Since the regiment may move a considerable distance to reach the initial objective, the battalion aid stations and the collecting station may also be required to move. Patients in the station must be left with an attendant when the stations move on.

d. Medical Service During the Later Phases. With the arrival of the vehicles and additional equipment by drop, assault aircraft, or by ground link-up, evacuation of the battalion aid stations should

proceed promptly. Vehicles are used to collect patients accessible to vehicles either from collecting points previously established or from wherever they may lie. Patients will then accumulate in the collecting station until evacuation by the medical battalion begins. Normally, this will occur within a few hours after the initial assault and well within the first 24 hours. From this point on, the medical service of the regiment is similar to that of any normal ground operation.

e. Contact and Communications. The regimental surgeon must insure that the collecting platoon makes early contact with the battalion aid stations. This is an important factor in advanced planning and must be included in the briefing of all personnel in the plan for operation of the medical service. Since the battalion aid stations are in the vicinity of the battalion command post, their location can be determined from the regimental command post. The regimental radio nets may be utilized by the medical service for important communications. Contact with the medical company is the responsibility of the medical battalion. Liaison personnel of the battalion jump with the medical company to assist in establishing and maintaining contact. The regimental surgeon, however, must do all in his power to insure that this contact is made and maintained so that he may be relieved of his patients at the earliest possible moment.

91. Medical Service of the Airborne Division

The organization and operation of the medical service of an airborne division is similar to that of an infantry division. For an airborne division, however, certain differences exist.

a. The battalion cannot function properly without transportation and heavy equipment. Therefore, the battalion normally enters combat by assault aircraft. Exceptions are: the liaison agents who parachute with the medical companies of the airborne infantry regiments, and the advance party of the battalion which parachutes prior to the arrival of the main body. In order to save space in aircraft, it may on some occasions be necessary to jump other personnel of the battalion. In special missions involving only one airborne combat team it may be necessary to jump elements of the medical battalion to reinforce the airborne medical company. The need for the medical battalion in an airborne assault is urgent. Until the battalion arrives in the airhead and starts operating, the regiments must retain and treat their own patients. This is a function for which they are not properly equipped or staffed. Plans for the operation must call for the early arrival of the battalion.

b. Detailed advanced plans for the loading of the battalion should be prepared during the training phase. These plans should be extensively rehearsed. Such plans are modified, as necessary, to meet the requirements of a particular situation. Elements of the battalion are divided into several aircraft serials so that disaster to one serial will not cause the loss of all key personnel and equipment. The transportation of the ambulance company is loaded to capacity with equipment of the clearing company. These loads are left at the site selected for the clearing station before the ambulances are dispatched to evacuate the collecting stations.

c. Contact between the medical battalion and the regimental medical companies is a responsibility of the medical battalion. Prior planning and briefing of all parties concerned before the airborne operation begins is essential to the establishment of early contact. Liaison agents from the medical battalion jump with each regimental medical company, normally two agents per company. These two men should be in different planes so that the loss of one plane will not prevent the accomplishment of their mission. One of the agents jumps with the regimental surgeon.

d. Early in the operation, shortly after the first wave of parachutists, the advance party from the medical battalion jumps. The party consists of at least two officers and two enlisted men. It is divided into two sections and rides in two different planes. The mission of the advance party is to facilitate, in every way possible, the development of the battalion when it arrives. To accomplish this mission, the advance party necessarily will reconnoiter the sites selected for the clearing station; will reconnoiter routes from the landing zones to the sites selected for all elements of the battalion; and will ascertain and keep abreast of the tactical situation. Insofar as possible, they must determine the medical situation to include the planned location of the collecting stations, possible routes to be used for evacuating the collecting stations, and the priority to be given each station before evacuation. They must meet the battalion aircraft when they arrive on the landing zones and guide the elements of the battalion to their destination on the ground. They must also brief the key officers of the battalion on the general situation and present recommended solutions to those problems which require immediate action.

e. The need for ambulance service in the early phases of an airborne operation is great. Because of the roughly circular airhead, however, the lines of evacuation in most operations are relatively short; therefore, fewer ambulances are required than for a normal ground operation. A factor which must be considered in planning is the probable losses of ambulances in the landings. The type of

vehicles that are used for ambulances will depend upon the types and numbers of aircraft available. Trucks, ¼-ton, are highly satisfactory for the purpose and can be air-landed or dropped. In some operations it may be necessary to substitute these lighter vehicles for the ambulances provided for in the tables of organization and equipment. If vehicles other than standard ambulances are to be used, they must be equipped with litter racks. For operations in cold weather, provisions must be made to enclose those vehicles for the protection of the patients.

f. The division clearing station normally is located centrally in the airhead. An important consideration in locating the division clearing station is the location of airfields, airstrips, or landing areas to be used for air evacuation of patients. Elements of the clearing company should arrive at the same time as elements of the ambulance companies so as to be prepared to receive patients brought in by the ambulances. The fact that the ambulances are loaded with the clearing station equipment facilitates coordination of the two functions. Only essential equipment is carried.

g. Within 24 hours after the initial assault, the medical service of the airborne division should be operating in a smooth manner, with a flow of patients through the battalion aid stations and collecting stations to the clearing station. Evacuation of the division clearing station may be accomplished by any one or any combination of the following methods:

(1) Aeromedical evacuation from the airhead.

(2) Evacuation through normal channels after ground link-up.

(3) Establishment of field army medical units in the airhead to hold patients for further evacuation.

h. Early evacuation of the clearing station upon establishment of the ground link-up and ambulances to be used for this evacuation are given high priority. If ground link-up is not to be made early and air evacuation of patients in desired quantities is not possible, field army medical units are given high priority for air transport to the airhead in order that they may relieve the division of its patients. Attachment of additional clearing or hospital elements to the division is mandatory if it appears there will be need for them.

i. Mass air evacuation by assault or transport aircraft may be possible in airborne operations. Aircraft delivering personnel, supplies, and equipment to the airhead may evacuate patients on the return flight. However, there may be situations in which assault aircraft are not available or cannot be employed, or in which

the airhead seized by a single airborne division is not sufficiently large to provide adequate protection for the operation of air-landed facilities. Patients, therefore, will accumulate in the division clearing station. Since several hundred patients may be received daily, the limit of capabilities of the personnel and equipment of the clearing company is reached early. In order to save life, many nontransportable patients will require immediate major surgery, which is carried out, normally, only in a hospital unit; therefore, it is essential that the problem of accumulation of patients in the clearing station be considered during the planning phase prior to the operation and that provisions be made for surgical treatment on a large scale in the clearing station. This may be accomplished by the attachment of qualified surgical teams and the provision of appropriate equipment to the division.

j. In a large airborne operation of corps or army size, the seizure and operation of airfields are normal operating procedures. In such an operation, field army medical units are air-landed early in the operation. Division patients may be evacuated to hospitals established by such units and later evacuated by air in the conventional manner, or may be evacuated by the division direct from division medical installations to nearby airfields or landing areas and evacuated by air from the airhead. With the advent of regular evacuation of the division clearing station, the division medical service would become identical to that of any normal ground operation.

CHAPTER 7

MEDICAL SERVICE IN JOINT AMPHIBIOUS OPERATIONS

92. General

While amphibious warfare is not a recent innovation, its frequent employment in World War II has led to the development of certain new techniques peculiar to this method of combat. The medical service has likewise evolved new procedures to parallel these combat developments. Prior to embarkation of the amphibious force, the medical services of Army, Navy, and Air Force function in the prescribed manner. As outlined in chapters 3, 4, and 5, a return to these normal procedures is effected as rapidly as the landing force elements are re-established ashore. Hence, the three phases which modify medical service in amphibious warfare are: the mounting, the water movement, and the landing. Most of the problems in amphibious operations arise in effecting the transition from a unilateral medical service to a joint medical service in the mounting, water movement, and landing phases and return to unilateral service subsequent to the landing.

93. Special Problems

The general principles of medical service in joint oversea operations have been discussed in paragraphs 14 through 17. The application of these principles to medical service in joint amphibious operations requires a knowledge of those special problems encountered in such operations.

a. Mounting. The problems associated with mounting a joint amphibious operation arise from two conflicting requirements. To preserve tactical flexibility, it is desirable that vessels be so loaded that, upon reaching the beachhead, any type of unit, piece of equipment, or group of supplies, is readily available for landing to meet battlefield developments. Also limitations of shipping require that the available capacity of vessels be utilized as economically as possible. The medical service, like other units of the amphibious force, must so plan its mounting that these two requirements are reconciled as far as possible. Therefore, the medical problems in mounting a joint amphibious operation involve detailed logistic planning based on the predicted requirements of the landing.

b. Care of Troops Afloat. Once embarked, the Army and the Air Force medical services are in unfamiliar surroundings. The marked

congestion aboard troop-carrying vessels and the restricted space for medical installations introduce medical problems not encountered ashore. The naval medical service is faced with the responsibility of supplying medical care to numbers of personnel far in excess of its own medical capabilities and must plan how best to incorporate Army and Air Force medical personnel and equipment into the established naval medical system. During the water movement, sanitation and preventive medicine will be major concerns of all medical personnel.

c. Landing. The assault phase of an amphibious operation poses one of the greatest problems in casualty handling found in any military operation. It is during this phase that the greatest concentration of casualties occur, and the facilities of the landing force medical department are least prepared to handle them. The burden of casualty care in this phase, therefore, falls almost entirely on the forces afloat. The success or failure in adequate casualty care in this phase depends primarily on two factors. First, adequate planning must assure that sufficient facilities are available afloat. This requires the presence of sufficient hospital ships, and reenforcement of ships' medical departments by surgical teams, various specialists, and medical personnel of the landing force who are not to be committed ashore during this phase. Second, there must be equitable distribution of casualties to the vessels off shore to insure that certain facilities do not become overwhelmed while others are not fully utilized. Such distribution cannot be accomplished by any activity acting on a hotly contested beach, but must be done by employing a casualty control vessel. The LST, reenforced by surgical teams and then designated an LST(H), is best suited for this distribution function. There should be one such vessel employed not more than one thousand yards off each regimental beach. In addition to its distribution function, such a vessel can provide immediate care of nonevacuables and also provide medical care to all casualties during the hours when further evacuation to larger ships is impossible. In operations where enemy action does not prohibit, these vessels may actually beach and provide early medical support.

(1) *Land-based medical services.* The sooner the land-based medical services are established ashore, the sooner each medical service can resume its normal functioning. However, this return to normal procedure is entirely dependent upon the speed with which the enemy is pushed back from the beaches. Since the amphibious assault is essentially a phased commitment of forces, the establishment of medical service ashore must likewise be phased.

The phasing of medical personnel, supplies, and equipment in landing must conform to the phasing of the combat elements and to the needs for medical care ashore. The greatest complication during the assault phase is that all of this landing and evacuation must be accomplished over fairly wide stretches of open water in small boats.

(2) *Medical supply.* The two main problems of medical supply in the assault phase of an amphibious landing lie in the requirement that most medical supplies, particularly in the early phases, must be hand-carried, and that such supplies must be in waterproof containers. While the additional problems of assembling and distributing supplies ashore must be solved, they are not special problems of amphibious operations. The plan of combat loading of unit vehicles increases the amount of initial medical supplies landed with forward supporting units thereby increasing its capabilities.

94. Patient Rates

As in any other type of operation, patient rates in amphibious operations are estimated on the basis of previous experiences in similar operations, modified in accordance with expected differences. Nonbattle injuries incident to the landing, while not so numerous as those in airborne operations, will occur in joint amphibious operations and must be considered; they will be influenced by the degree of training of the troops, the roughness of the sea; and the meteorologic and hydrographic situation at the time of the landing. Such injuries can be minimized by adequate training and rehearsals. Battle injuries in amphibious operations will, in the early phases, usually run much higher than those for overland assualts of those patients occurring in the first few days, roughly 90 percent will require evacuation from the target area. Of those occurring during the first three weeks, approximately two-thirds will have to be evacuated from the combat zone.

95. Planning

Because of the multitiude and complexity of details which must be specified in connection with the landing of a joint force, it has become the practice to publish the "mounting plan" separately from the operations plan. However, the two plans are so closely interdependent that their preparation should be accomplished by a single group of planners. The same applies to the medical paragraphs or annexes of each of these plans.

a. Responsibilities. Normally, in joint amphibious operations, the Commander of the unified command will designate the number and type of medical units and equipment which each service will furnish to the amphibious force. The commander of the unified command will also direct the appropriate base or communications zone section to furnish evacuation, hospitalization, and medical supply facilities to the mounting area or areas. To receive patients from the beachhead, certain bed-credits in base and general hospitals in the rear areas must be established for the joint force by the commander of the unified command. Determination of these quantities and location of routine reserve and emergency medical supplies, including whole blood, must be included in the operation medical plan. The normal division of responsibilities is as follows:

(1) The Army will provide:
   (*a*) Medical service to Army personnel prior to embarking.
   (*b*) Assistance to Naval medical personnel for medical service to Army personnel while embarked.
   (*c*) Evacuation of all Army patients from the front lines to designated collecting points in the beachhead area prior to establishment of hospitalization in the area.
   (*d*) Medical service to all personnel ashore during the assault phase, except as provided in (2) (b) below.

(2) The Navy will provide:
   (*a*) Medical service to all embarked personnel while afloat.
   (*b*) Assistance in the medical service in the immediate beachhead area.
   (*c*) Seaward evacuation and hospitalization afloat until such time as aeromedical evacuation is established.
   (*d*) Aeromedical evacuation when distributed by proper authority.

(3) The Air Force will provide:
   (*a*) Medical service to Air Force personnel prior to embarkation.
   (*b*) Assistance to Naval medical personnel for medical service to Air Force personnel while afloat.
   (*c*) Aeromedical evacuation from the target area by assault or other transport aircraft to designated rearward ground medical facilities in accordance with established evacuation plans, or as directed by appropriate authority.
   (*d*) Emergency air transportable medical facilities for medical service of Air Force and other designated personnel as soon as an air strip is established in the target area.

(*e*) Medical aspects of air rescue service.

(4) In amphibious operations the assault beaches are areas of joint medical operations and it is essential that joint medical plans be prepared in each instance to delineate detailed responsibilities of each Service. Further, it is again stressed that such plans be approved by the appropriate commander and be disseminated in a timely manner through command channels to insure the provision of necessary logistic support.

b. Mounting Phase. Since the medical service is not responsible for the actual loading of vessels involved in mounting an amphibious operation, it is necessary to consider here only those procedures concerning planning by the medical service for mounting. There are two main steps in such planning: first, compute accurately the medical supplies, equipment, and personnel which will be required and the amount and location of vessel space needed to transport them; second, request the allocation of space required in vessels of the force with sufficient justification to insure that such space will be available. The medical planner must be intimately familiar with medical logistics and with the cargo capacity and loading characteristics of the vessels involved. In addition, this space must be located in such a manner that supplies will be available when required. The second step is contingent upon the successful completion of the first.

c. Landing Phase.

(1) During the landing phase of an amphibious operation, the assault beachhead is organized in accordance with three successive periods of the operation: the battalion landing team period, with its shore party team; the regimental combat team period, with its shore party group; and the division period, with its division shore party. Each of these shore parties has a medical section. As each of these medical sections comes ashore, it takes over for its respective commander the supervision of medical service in the beach area under his control. Thus, the shore party medical section, constitutes the link between the medical service ashore and medical services afloat.

(2) The classification and sorting of patients in accordance with their need for further evacuation is particularly difficult to accomplish on an assault beachhead. Yet, because of the distribution of medical and surgical specialists among the attack transports and other patient-carrying ships of the amphibious task force, it is essential that such sorting be accomplished prior to de-

livery of the patients to these ships. Therefore, "patient evacuation control ships" are designated, normally, one for each combat team landing beach. This control ship sorts patients in landing craft returning from the beach, directs the landing craft to specific ships having appropriate medical services, and when circumstances require, removes patients from landing craft for the performance of emergency life-saving surgery.

(3) The necessity for moving patients from shore to ship by small boats, landing craft, or amphibious vehicles presents a considerable problem in patient handling. Unlike the land ambulance, none of these means of transportation is constructed specifically for the carrying of patients, which complicates both their loading and unloading when so employed. The LCVP and the DUKW are the first choice for means of transporting patients from shore to ship.

(4) To solve the problem of medical supply ashore during the early phases of the landing, medical resupply units in waterproofed containers are carried ashore by the early assault waves and dropped on the beach. They are subsequently collected by the shore party team medical section, when it comes ashore, to establish the initial medical supply dump ashore.

96. Training

Because of the complex nature of joint amphibious operations, it is essential that intensive training of all personnel precede any actual operations. The medical services are concerned particularly with the training of three groups of personnel for joint amphibious operations: all participating personnel must receive first aid training, with particular emphasis on resuscitation of the apparently drowned; selected personnel, such as the crews of landing craft and amphibious vehicles, must have special training in the handling of patients which they may be called upon to transport from shore to ship; and all medical personnel must be trained in their specific duties for the contemplated operation. All of this training must culminate in joint patient exercises conducted in conjunction with other joint training and rehearsals. Because each of the three medical services is operating to some degree out of its normal element in joint amphibious operations, intensive, realistic, and specific medical training is indispensable to successful operations.

97. Chain of Evacuation

Because the landing in joint amphibious operations is a phased commitment of forces, the chain of evacuation must be adapted to suit each successive period. In discussing the chain of evacuation by periods, it must be clearly understood that the transition from one period to the next is a gradual but continuous process, governed by tactical developments.

a. The Battalion Landing Team Period. During this period of the amphibious assault phase, the first medical personnel ashore are the company aid men of the battalion medical platoons who land with their respective companies and perform their normal functions. They are followed very shortly by a part of the battalion aid station (of the battalion medical platoon in case of the Army) who normally land in two echelons and establish the battalion aid station. In addition to its normal functions, the battalion aid station holds patients until a shore evacuation station is established by the shore party medical section. The shore party medical section consists primarily of landing force personnel plus liaison personnel (Navy) from the transport squadron. It establishes a shore evacuation station which receives patients from battalion aid stations and loads them on the boats and craft which will carry them to the evacuation control ship. At the evacuation control ship the patients are treated when required, sorted, and evacuated to the patient-carrying ship designated to receive that particular type of patient. The last medical personnel to come ashore during the battalion phase are personnel from the collecting platoon of the medical company, who land in two echelons and perform the evacuation from battalion aid stations to shore evacuation stations. The chain of evacuation at the end of the battalion landing team period thus is from the battlefield to battalion aid station to shore evacuation station to evacuation control ship via landing craft or amphibious vehicles, to appropriate patient-carrying ship via small boats.

b. The Regimental Combat Team Period.

(1) During this period, the medical detachments of the other components of the combat team, e. g., artillery, come ashore with their respective units. In addition, a clearing platoon from the division medical battalion establishes a clearing station, usually between the collecting stations and the shore evacuation station. At this time one platoon of the division ambulance company (Army) is also landed to provide evacuation facilities; in case Marine

Division ambulances are organic to medical companies, they come ashore with elements of those units.

(2) At the end of the regimental combat team phase, the chain of evacuation is: battlefield to battalion aid station to collecting station to clearing station to shore evacuation station to patient evacuation control ship to patient-carrying ship.

(3) Shore exacuation stations may be consolidated at this time if practicable.

c. The Division Period. The remaining elements of the division medical battalion and the mobile surgical hospital (hospital companies of division medical battalion in case of Fleet Marine Force Divisions) come ashore and assume their usual functions and shore party evacuation stations are further consolidated as practicable.

d. The Corps or Army Period. Nondivisional supporting medical units, such as evacuation hospitals, are established ashore during this period. With the establishment of hospitals ashore, the normal chain of medical evacuation is established.

e. The Shore Evacuation Station. The chief link between medical service ashore and medical service afloat during all phases of the assault is the shore evacuation station. The principal function of the shore evacuation station in all periods of the amphibious assault is to receive patients from the next inland medical establishment and move them across the beach to the boats and craft which will take them to the evacuation control ship or ships. During the battalion landing team period, the patients are received from the battalion aid stations; during the regimental combat team period, the patients come from the collecting stations and clearing stations; and, during the division stage, the patients come from the clearing stations. In addition, the shore evacuation station has the functions of providing emergency medical treatment for all patients occurring in the beach area proper, supervision of the sanitation in the beach area, maintenance of liaison with advance and collateral medical installtions, and the keeping of the necessary medical records.

f. Medical Supplies. The initial medical supplies taken ashore with landing force medical personnel are prescribed by their respective surgeons. The supplies taken ashore for medical service in the beach area are furnished by the landing force. Automatic resupply of litters, blankets, and splints is the responsibility of the ships receiving patients.

[AG 700 (27 Jan 55)]

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For explanation of abbreviations used, see SR 320–50–1.

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