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A STUDY OF FLEET SURGICAL TEAMS READINESS POSTURE IN AMPHIBIOUS READINESS GROUPS

by

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March 2000

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ABSTRACT *(maximum 200 words)* This thesis describes and evaluates Fleet Surgical Teams (FSTs). It examines how Navy Medicine adapted FSTs to changing support requirements associated with the Total Health Care Support Readiness Requirement (THCSRR) and its deployability posture in Amphibious Readiness Group (ARG) contingency taskings. The FSTs are dedicated medical and surgical assets assigned to the Fleet Commanders-in-Chief (CINC) to increase efficiencies in meeting mission readiness requirements. The FSTs' medical readiness was evaluated against Status of Resources and Training System (SORTS) criteria that included personnel, training, equipment, supplies, and fleet support operations. The SORTS streamlined resource tracking and reporting to improve FST's capability in delivering continuum of healthcare for the Operating Forces. The analysis showed no glaring deficiencies and determined that FSTs contribute postively to overall ARG medical readiness by increased efficiencies through consolidating and integrating Navy and Marine Corps medical units' support capabilities. The Commander, Amphibious Task Force (CATF) Surgeon must continue to monitor both FST and ARG medical readiness, and pay particular attention to the ship's medical department Authorized Minimal Medical Allowance List (AMMAL) inventory levels.

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A STUDY OF FLEET SURGICAL TEAMS READINESS POSTURE IN AMPHIBIOUS READINESS GROUPS

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ABSTRACT

This thesis describes and evaluates Fleet Surgical Teams (FSTs). It examines how Navy Medicine adapted FSTs to changing support requirements associated with the Total Health Care Support Readiness Requirement (THCSRR) and its deployability posture in Amphibious Readiness Group (ARG) contingency taskings. The FSTs are dedicated medical and surgical assets assigned to the Fleet Commanders-in-Chief (CINC) to increase efficiencies in meeting mission readiness requirements. The FSTs' medical readiness was evaluated against Status of Resources and Training System (SORTS) criteria that included personnel, training, equipment, supplies, and fleet support operations. The SORTS streamlined resource tracking and reporting to improve FST's capability in delivering continuum of healthcare for the Operating Forces. The analysis showed no glaring deficiencies and determined that FSTs contribute postively to overall ARG medical readiness by increased efficiencies through consolidating and integrating Navy and Marine Corps medical units' support capabilities. The Commander, Amphibious Task Force (CATF) Surgeon must continue to monitor both FST and ARG medical readiness, and pay particular attention to the ship's medical department Authorized Minimal Medical Allowance List (AMMAL) inventory levels.

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I. INTRODUCTION

A. BACKGROUND

Navy Medicine's primary mission is to provide health care support for Navy and Marine Corps forces during contingency operations. In order to accomplish this mission, the medical department must be prepared to respond effectively and rapidly to potential Major Theater Wars (MTW) and Military Operations Other Than War (MOOTW). Today's medical department faces a number of challenges. Major changes in post-Cold War strategy have led to changes in force structure, missions, and casualty rates. Lessons learned from past operational missions, Desert Shield/Desert Storm, and Department of Defense (DoD) downsizing initiatives have influenced medical end strength and readiness policies.[1]

Strategic reengineering efforts have changed the way Navy Medicine provides health care in peacetime operations and wartime missions. Peacetime medical staffing levels within the Fleet Marine Forces (FMF), Casualty Receiving and Treatment Ships (CRTS), and overseas Medical Treatment Facilities (MTFs) are maintained below combat operational staffing levels because of the difference between peacetime and wartime medical workload.[2] The medical personnel augmenting these platforms are capable of treating casualties effectively within the special demands for situations ranging from fleet peacetime training operations to wartime missions.

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[1] Palmero, Michael, Navy Capabilities and Mobilization Plan Annex Q – Health Service Support, Thesis, Naval Postgraduate School, Monterey, CA, December 1998.
[2] Bureau of Medicine and Surgery Instruction. 6440.5A, Medical Augmentation Program, 19 April 1994.

The most critical wartime medical skill requirements are oriented toward surgery. Forward Deployed Naval Forces (FDNF) surgical teams provide advance emergency and surgical procedures for casualties severely injured in combat missions. The Fleet Surgical Teams (FSTs), Mobile Medical Augmentation Readiness Teams (MMARTs), and Contingency Response Teams (CRTs) carry out missions immediately supporting the Operating Forces.[3] FSTs are 16-person medical support teams for the Commander-in-Chief, U. S. Pacific Fleet (CINCPACFLT) and Commander-in-Chief, U. S. Atlantic Fleet (CINCLANTFLT). The FSTs provide Echelon II medical care and deploy within Amphibious Readiness Groups (ARG). MMARTs are BUMED-sponsored and augment operating forces with specialty trained medical personnel providing immediate casualty care procedures for short term military operations. CRTs are medical support teams for Commander-in-Chief, U. S. Naval Europe (CINCUSNAVEUR) and provide a rapid interim response to peacetime disasters or mass casualty situations.

B. OBJECTIVE

This thesis will describe and evaluate FSTs. It will examine FSTs readiness posture in ARG contingency tasking. It will review how Navy Medicine has adapted FSTs to changing support requirements associated with Total Health Care Support Readiness Requirement (THCSRR). It will analyze post deployment lessons learned, address commands relationships, policy issues, unit, and personnel readiness during work-up cycles and scheduled

[3] Bureau of Medicine and Surgery Instruction. 6440.6, Mobile Medical Augmentation Readiness Team, 11 May 1993.

deployments. This thesis will support medical planners and Operational Commanders interested in FST's contribution to ARG medical readiness.

C. RESEARCH QUESTIONS

The research questions analyzed and evaluated are:

1. Primary Research Question

- What is the historical evolution and current state of FST in Navy Medicine and Commanders-in-Chief (CINC) readiness doctrine, and how is medical readiness evaluated?

2. Subsidiary Research Questions

- What are the responsibilities and chain of command for FSTs as they pertain to readiness? What policies or guidelines delineate accountability?
- How many FSTs support the Operating Forces? How are specialty-mix and training requirements generated and maintained for operational support?
- What changes in policy and procedures are required to address any identifiable discrepancies?

D. SCOPE

This thesis will describe Navy Medicine readiness missions and processes used to determine peacetime and wartime medical requirements. It will also assess FST's mission readiness, deployability posture, their organizational issues, and their contribution to amphibious shipboard medical departments.

E. METHODOLOGY

This research reviewed and examined Navy doctrines, publications, and directives, General Accounting Office reports, and other resources to gain a historical perspective. Telephone interviews and e-mail

communications were conducted with representatives from Commander, Naval Surface Pacific Fleet Medical planner, Commander, Amphibious Group Three medical planner, Commander, Amphibious Group Two medical planner, and Chief, Bureau of Medicine and Surgery Operations Division (Med–27).

The FSTs' medical readiness was evaluated against five Status of Resource and Training System (SORTS) criteria. The evaluation focused on Pacific FSTs post-deployment lessons learned and limited information from Atlantic FSTs. The data were compiled to identify recurring readiness issues that centered on deployment policy, command relationships, mission readiness, and medical readiness support contribution to shipboard medical departments during work-up cycles and deployments.

F. CHAPTER ORGANIZATION

This chapter covers Navy Medicine's primary mission to the Navy and Marine Corps forces. It also describes FDNF medical and surgical teams that augment various platforms for peacetime and wartime operations.

Chapter II discusses the post-Cold War affects on Navy Medicine's realignment policies, describes the Navy Medical Department readiness missions, and summarizes important concepts in understanding medical wartime and peacetime staffing requirements.

Chapter III provides background information on the FST mission, organizational structure, principal personnel functions, chain of command responsibilities, and readiness reporting procedures.

Chapter IV addresses the research methodology used to gather and analyze medical readiness data during work-up cycles and deployments.

Chapter V contains conclusions.

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II. NAVY MEDICAL DEPARTMENT READINESS OVERVIEW

A. BACKGROUND

Since 1985, DoD medical manpower requirements have been under revision. That same year, the final report of the Blue Ribbon Panel (BRP) on sizing DoD MTFs recommended placing highest priority on medical planning to refine wartime medical requirements and identify the peacetime medical force required to support mobilization.[4] The National Defense Authorization Act (NDAA), passed in fiscal year (FY) 1986, directed the Secretary of Defense to revise the organizational structure of the military health care delivery system. The new structure enhanced medical readiness by standardizing methods used to determine the number of personnel, force structure, and specialty-mix necessary to support goals and objectives delineated in the Defense Planning Guidance (DPG).[5] The DPG mandates DoD to maintain a ready force to fight and win two simultaneous Major Regional Conflicts (MRC). The DPG also serves as the basis for all planning and programming requirements within DoD.

B. BLUE RIBBON PANEL INITIATIVE

In May 1988, the Secretary of the Navy established new BRP for Naval Medicine, chaired by the Vice-Chief of Naval Operations. For five months, the BRP examined health care issues and combat care capabilities in detail to

[4] Jeffs, Steven, The Evolution of Military Health Services System Wartime Manpower Requirement Generation: From the Medical Planning Module to the Medical Analysis Tool, Thesis, Naval Postgraduate School, Monterey, CA, March 1997.
[5] Palmero, Michael, Navy Capabilities and Mobilization Plan Annex Q- Health Services Support: Resource and Endstrength Implications, Thesis, Naval Postgraduate School, Monterey, CA, December 1998.

improve Naval hospitals and clinics in all aspects of health care delivery.[6] One important aspect of the BRP's strategy was to reorganize the Navy Medical Department. This reorganization strengthened the Navy's line involvement and management of Navy's health care support system.[7] This reorganization assigned Navy shore-based MTFs to the Fleet CINC and Commander, Naval Education and Training (CNET), consolidated Medical Department headquarters, reactivated the Bureau of Medicine and Surgery command, and disestablished the Naval Medical command and eight Geographical commands (GEOCOM).[8] Figure 1 displays Navy Medicine's new organization structure.

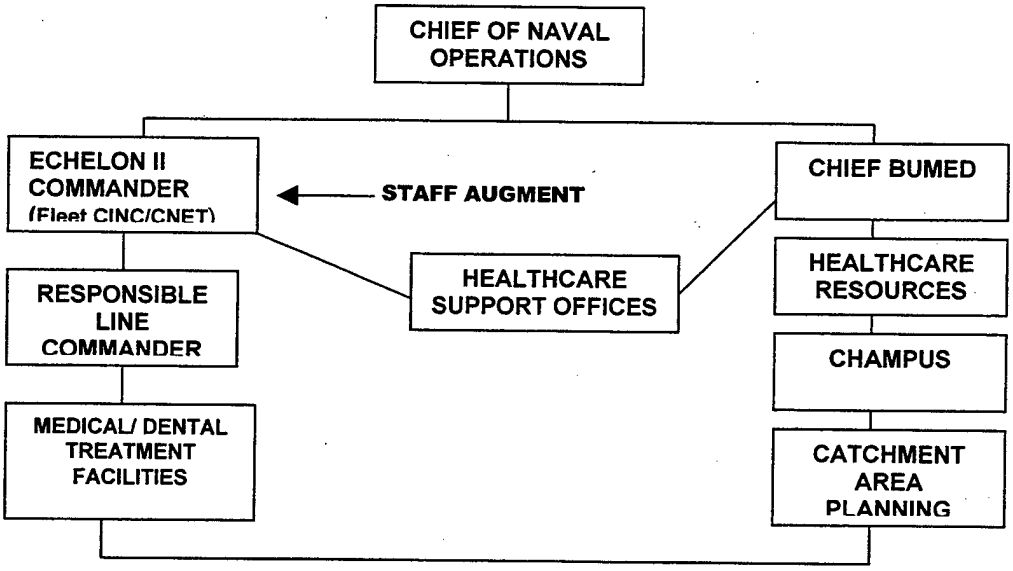

Figure 1. Navy Medical Department Reorganization
Source: Navy Medicine Journal, 1989.

The Chief of Naval Operations (CNO) appointed the Navy Surgeon General as the Chief, BUMED. BUMED provides medical and dental care to

[6] Department of the Navy, Final Report of the Medical Blue Ribbon Panel, Washington, DC, November 1988.
[7] Zimble, James, VADM, Results of the Blue Ribbon Panel, Navy Medicine, November-December 1988.

the fleet, FMF, and shore-based commands. The reorganization gave BUMED authority to perform budget formulation and execution, establish clinical standards of care, and manage manpower, facilities, and material.[9]

After careful study and analysis, the BRP recommended specific changes in Navy Medicine business practices. These changes fell within the following 13 categories:[10]

- Organizational structure
- Graduate medical education
- Management effectiveness
- Compensation for health care professionals
- Personnel utilization
- Contracts
- Medical accession and retention
- Command and control authority
- Medical training system
- Operational efficiencies - (*two fleet surgical teams per coast*)
- Medical equipment
- Billet and end-strength requirements
- Resources

The end of the Cold War and subsequent DoD downsizing initiatives caused the Navy to reassess its wartime medical manpower requirements. In section 733 of the NDAA for FY-93, Congress directed DoD to determine the size and composition of the military health care services needed to support the armed

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[8] Ibid.
[9] Ibid.
[10] Ibid.

forces during a war, or MOOTW.[11] The report from this study theorized that as the number of active duty personnel draws down, the level of medical wartime requirements should decrease. Several debates escalated concerning the medical manpower needed for wartime and day-to-day (DTD) operational missions. Following the 733 study, each service used its own model to determine medical wartime requirements.

C. TOTAL HEALTH CARE SUPPORT READINESS REQUIREMENT

1. Background

The Navy Medicine response to the 733 study tasked the Center for Naval Analysis (CNA) to analyze manpower requirements for (DTD) operational missions not covered in the 733 study. The Navy Surgeon General tasked a Medical Assessment Task Force to develop manpower readiness requirements that combined the wartime portion of the 733 and CNA's study to design the THCSRR model.[12]

The CNA analysis contains Peacetime Operational Force (POF) and CONUS rotational base (RB) requirements for the Navy medicine community to perform its DTD operational missions. The POF requirements are with the Fleet, FMF, OCONUS, and isolated sites within CONUS. The RB requirements are added to DTD operational missions. The medical personnel serving in

[11] General Accounting Office, *Wartime Medical Care: Personnel Requirements Still Not Resolved,* June 1996.
[12] Weber, T. H, The THCSRR Model: Determining Navy Medicine's Readiness Manpower Requirements, Navy Medicine, September-October 1994.

operational assignments are replaced periodically by personnel serving in non-operational assignments.[13]

The THCSRR determines the number of Navy medical personnel needed to meet DTD operational support and wartime mission. The THCSRR includes an Active Component (AC) and Reserve Component (RC).

2. Active Component ($THCSRR_A$)

The Active Component is a union of 733 wartime readiness requirements and DTD operational missions necessary to complete the Medical Operational Support Requirement (MOSR). This union validates the minimum medical endstrength required to support contingency missions.

The sustainment portion allows for a continuous flow of qualified personnel into Operating Forces and OCONUS activities as people leave active service, or progress to higher skill levels. The sustainment element includes loss rates, training billets, mission continuity, and Transients, Patients, Prisoners, and Holding (TPP&H). The sustainment portion calculates the number of training billets required for medical personnel and is added to the MOSR to create the $THCSRR_A$.[14]

3. Reserve Component ($THCSRR_R$)

The Reserve Component begins with wartime workload requirements established in the 733 study. The Reserve Component calculates the medical

[13] Palmero, Michael, Naval Capabilities and Mobilization Plan Annex Q-Health Services Support: Resource and Endstrength Implications, Thesis, Naval Postgraduate School, Monterey, CA, December 1998.

endstrength needed to backfill mission support for Care of Returning Casualties (CORC) which is added to the wartime requirements that produce $THCSRR_R$.[15] Figure 2 illustrates the THCSRR model.

Active Component				
733 Wartime$_A$	**U**	**Day-to-Day Operational$_A$**	**=**	**MOSR$_A$**
MOSR$_A$	**+**	**SUSTAINMENT**	**=**	**THCSRR$_A$**
Reserve Component				
733 Wartime$_R$	**+**	**CORC**	**=**	**THCSRR$_R$**

Figure 2. Total Health Care Support Readiness Requirement Model
Source: Navy Surgeon General (N-931)

The THCSRR model along with changes in warfare doctrine plays a major role in establishing future manpower requirements for Navy Medicine.

D. CONTINGENCY MISSION READINESS

One of the most important missions that Navy Medicine performs is maintaining readiness to provide medical support to Operating Forces during contingency operations. The Navy Medical Department mission is to ensure the health of Navy and Marine Corps personnel so that they are physically and mentally ready to carry out assigned worldwide missions. This involves

[14] Triplett, J. Jr., The Evolution of the Fleet Hospital Program: From the Cold War Era to the Naval Expeditionary Medical Support System, Thesis, Naval Postgraduate School, Monterey, CA, December 1997.
[15] Ibid.

establishing, executing, and managing policies and procedures supporting their operational readiness and sustainability in any environment.[16]

At the onset of war, medical wartime manning levels increase to support the Operating Forces. The DPG establishes and issues potential combat scenarios to generate critical planning factors, i.e., casualty estimates and evacuation flows that determine relevant wartime requirements.[17] All Navy medical department personnel have both a peacetime and wartime assignment. The Navy requires a variety of medical and surgical specialties to augment FMF, CRTS, fleet hospitals, and hospital ships during contingency situations.

E. ECHELONS OF CARE

The medical community models combat intensities using the Medical Planning Module (MPM) to predict medical workload during a conflict.[18] The MPM simulates evacuation flows and computes the required physicians, hospital beds, operating rooms, and medical supplies for combat operations.[19]

The Navy medical assets and capabilities are organized into five echelons of care for combat operations. The casualties are evacuated through the continuum of care system until they arrive at a facility with the capability to begin definitive treatment and bed capacity to retain them.[20] The effectiveness of the system is measured by its ability to save life and limb, reduce diseases or non-

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[16]Department of Navy, Manual of the Medical Department, Chapter 1.
[17]Jeffs, Steven M., The Evolution of MHSS Wartime Manpower Requirements Generation: From the Medical Planning Module to the Medical Analysis Tool, Thesis, Naval Postgraduate School, Monterey, CA, March 1997.
[18] Copenhaven, Kimberly, Department of the Navy: Total Health Care Support Readiness Requirement Model, Thesis, Naval Postgraduate School, Monterey, CA, October 1995.
[19] Ibid.
[20] Naval Warfare Publication: Deployable Health Services Support Platforms, (NWP-4-02.4 Part A), August 1996.

battle injuries, return patients to units quickly, and provide support as far forward in the theater of operations as possible.

Each level of care has distinct training requirements related to specific operational platforms. Table 2.1 displays the echelons of care.

TABLE 2.1. ECHELONS OF CARE

ECHELONS	PLATFORM	TYPE OF CARE
I	Unit Hospital Corpsmen Shipboard Personnel Battalion Aid Station	Buddy Aid Self Aid First Aid
II	Medical Battalion, FST CRTS	Initial Resuscitative
III	Hospital Ships Combat Zone Fleet Hospitals	Definitive Resuscitative
IV	Communications Zone Hospitals OCONUS MTFs	Definitive Therapy
V	CONUS Hospitals (military, veterans, civilian)	Convalescent Restorative Rehabilitative

Source: NWP-4-02.4 (Part A).

1. Echelon I

Echelon I initial care is rendered by self aid, buddy aid, or Hospital Corpsmen assigned to the FMF unit or ship's medical department. It is the most mobile component of the echelon system, but lacks advanced capabilities.

2. Echelon II

Echelon II involves advanced emergency and surgical care performed by physicians supported by medical, surgical, technical, and nursing staff. Echelon

II assets are less mobile but more capable than Echelon I. At this level, shipboard surgeons onboard CRTS coordinate further definitive medical treatment and evacuation.

3. Echelon III

Echelon III provides complicated surgical procedures and acute medical treatment capabilities on hospital ships and in Combat Zone fleet hospitals. This level of care requires clinical capabilities normally found in a MTF located in a lower-level threat enemy environment.

4. Echelon IV

Echelon IV provides definitive therapy for patients in the recovery phase that requires medical treatment in OCONUS MTF or Communications Zone fleet hospitals.

5. Echelon V

Echelon V provides extensive convalescent, restorative, and rehabilitative treatment at military hospitals, Department of Veterans Affairs, and civilian hospitals in CONUS.

The echelons of care are critical to understanding wartime medical procedures. Each level of care provides capabilities equal to the proceeding level, plus additional capabilities, for progressive care.[21] This continuum of healthcare treats patients at the lowest level and returns them to the theater of operations within predetermined timeframes. If patients require definitive treatment they are medical evacuated to a higher echelon.

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[21] Fleet Marine Force Manual, (FMFM 4-50), Health Service Support, September 1990

The echelons of care are spread across various medical support facilities in the Combat Zone (CBTZ), Communications Zone (COMMZ), and CONUS. The CBTZ is the area in which military forces conduct combat operations that include sea, land, and airspace within the Amphibious Operations Area (AOA). Echelons I, II, and III are in this zone. The COMMZ is the rear part of the theater of operations that provide lines of communication and facilities for supply and evacuation to support the field forces. Echelon IV is located in this zone. The CONUS is the area in which military MTF, Veterans' Affairs hospitals, and civilian facilities provide definitive medical treatment. Echelon V, the final level of care, is located in CONUS.[22] Figure 3 outlines the Continuum of Care across principal treatment zones.

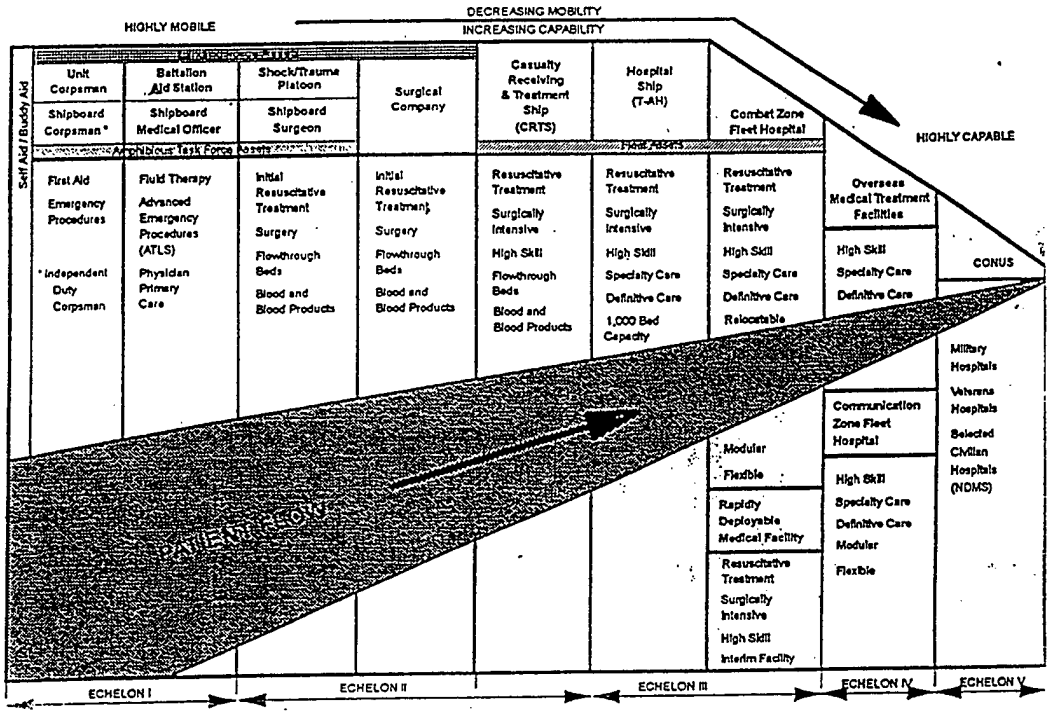

Figure 3. Continuum of Care
Source: FMFM 4-50

[22] Ibid.

F. SUMMARY

This chapter looked at Navy Medicine's response to political pressures that affected its organizational structure, business practices, medical end strength, and readiness policies. BUMED developed the THCSRR model to validate medical requirements to support the Navy's DTD operations and wartime missions. It also covered the echelons of care in combat operations and nonbattle injuries. The next chapter examines FST mission, organization structure, and medical readiness procedures.

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III. FLEET SURGICAL TEAM ORGANIZATION

A. BACKGROUND

In the 1980s, MMARTs provided frequent medical support for the Operating Forces. The extensive deployments and training exercises took healthcare providers and support staff away from beneficiary care rendered at MTFs.[23] The Teams came from designated hospitals to provide medical and surgical support for deployments and contingency missions. The Team was kept on standby for emergencies and performed minimal work at the MTF. In FY-87, operational support accounted for 34,847 mandays and FY-88, accounted for 26, 795 mandays lost to deployments. Eighty-three percent of MMART deployed mandays were in support of ARG.[24]

In response to lost mandays, the Navy Surgeon General created four FST to provide specialty medicine and surgical capabilities for ARG routine deployment requirements. The MMART composition and staff requirements included surgical unit, surgical support unit, ancillary support unit, medical regulating team, preventive medicine team, specialist support team, sprint team, and disaster support team.[25] Some MMART assets were redistributed and stood up as four FSTs. The MMARTs are specialty teams capable of rapid response to various Fleet and FMF peacetime contingencies. The MMART deploys as an individual team or combination of specialty teams at BUMED direction to meet specific operational or disaster missions.

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[23] Department of the Navy, Final Report of the Medical Blue Ribbon Panel, Washington, DC, November 1988.

[24] Ibid.

B. ESTABLISHING FLEET SURGICAL TEAM REQUIREMENTS

In 1989, the Surgeon General of the Navy gave the two Fleet CINC 84 billets to establish four 21-person FSTs. In 1990, the Chief of Naval Operations (CNO) established the FSTs to increase the effectiveness of fleet medical and surgical support by creating fully dedicated medical assets to support peacetime forward presence missions and contingency operations.[26] The FSTs minimized training disruptions associated with medical personnel deployment from MTFs to support fleet operations.

In 1991, Director of Medical Plans, Policy and Operations mandated a zero-based assessment of FST's composition to evaluate the number of personnel and specialty-mix needed to provide medical care to the Operating Forces. [27] The assessment recommended reducing FST billets and adjusting their composition and staffing mix to reflect their surgical function when not augmented to a ship's medical department during peacetime operations. The FST were reduced from 21 billets to 16 billets, and excess billets were used in part to stand up FSTs Five and Six.

The billet restructure deleted a Primary Care Medical Officer, Operating Room Technician, and three General Duty Hospital Corpsmen. The new billet adjustments replaced two General Duty Hospital Corpsmen with an Advanced

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[25] Ibid.
[26] Department of the Navy, Commander Amphibious Group Three, letter 6400 dtd 18 Oct 1991.
[27] Department of the Navy, Director, Medical Plans, Policy, and Operations Division, letter 6440, 14 Feb 1992.

Laboratory Technician and Respiratory Therapy Technician.[28] Table 3.1 summarizes FST billet adjustments.

TABLE 3.1. FLEET SURGICAL TEAM BILLET ADJUSTMENTS

BILLET	DESIGNATOR/ GRADE	NOBC/NEC	FST 1 – 4 (old) BA	FST 5 – 6 (new) BA
CATF Surgeon	2100G	0070	1	1
General Surgeon	2100G	0214	1	1
Family Practitioner	2100I	0108	1	1
Primary Care Medical	2100J	0070	1	0
Nurse Anesthetist	2900I	0952	1	1
Operating Room Nurse	2900I	0932	1	1
Medical Regulator	2300J	0800	1	1
Advanced HM	HMC	0000	1	1 - HM3 (8506)
OR Technician	HM2	8483	1	1
OR Technician	HM3	8483	2	1
Corpsman	HM2	0000	1	1
Corpsman	HM3	0000	4	2
				1- HM2 (8541)
Corpsman	HN	0000	4	2
TOTAL			**21**	**16**

Source: Fleet CINCs Memorandum 6440 14 Feb 1992.

In 1995, FST Seven was stood up in Okinawa/Sasebo, Japan. By 1996, FST Eight and Nine were added to the Pacific and Atlantic Fleets. Each FST deployed for approximately six months with an ARG. As one FST stood-down and rotated into the MTF, the second FST rotated into ARG work-up cycles, and the third FST deployed. Each FST trains to support Marine Expeditionary Unit Special Operation Capability (MEU SOC) missions.

C. MISSION

The FST mission is to provide forward medical and surgical capabilities to designated operating forces of the Atlantic and Pacific Fleets during Fleet and FMF exercises and routine ARG deployments.

[28]Ibid.

D. ORGANIZATION STRUCTURE

The nine Teams are Echelon II activities that report to respective Fleet CINC via the Amphibious Group and Type Commander (TYCOM). The operational chain of command is Pacific and Atlantic CINC, Commander, Amphibious Groups (COMPHIBGRUs), and Commander, Amphibious Squadrons (COMPHIBRONs). The COMPHIBGRUs assign FSTs to specific COMPHIBRONs. The FST OIC reports directly to their respective PHIBGRU and PHIBRON for operational control (OPCON). [29] Figure 4 displays Pacific FST operational organization.

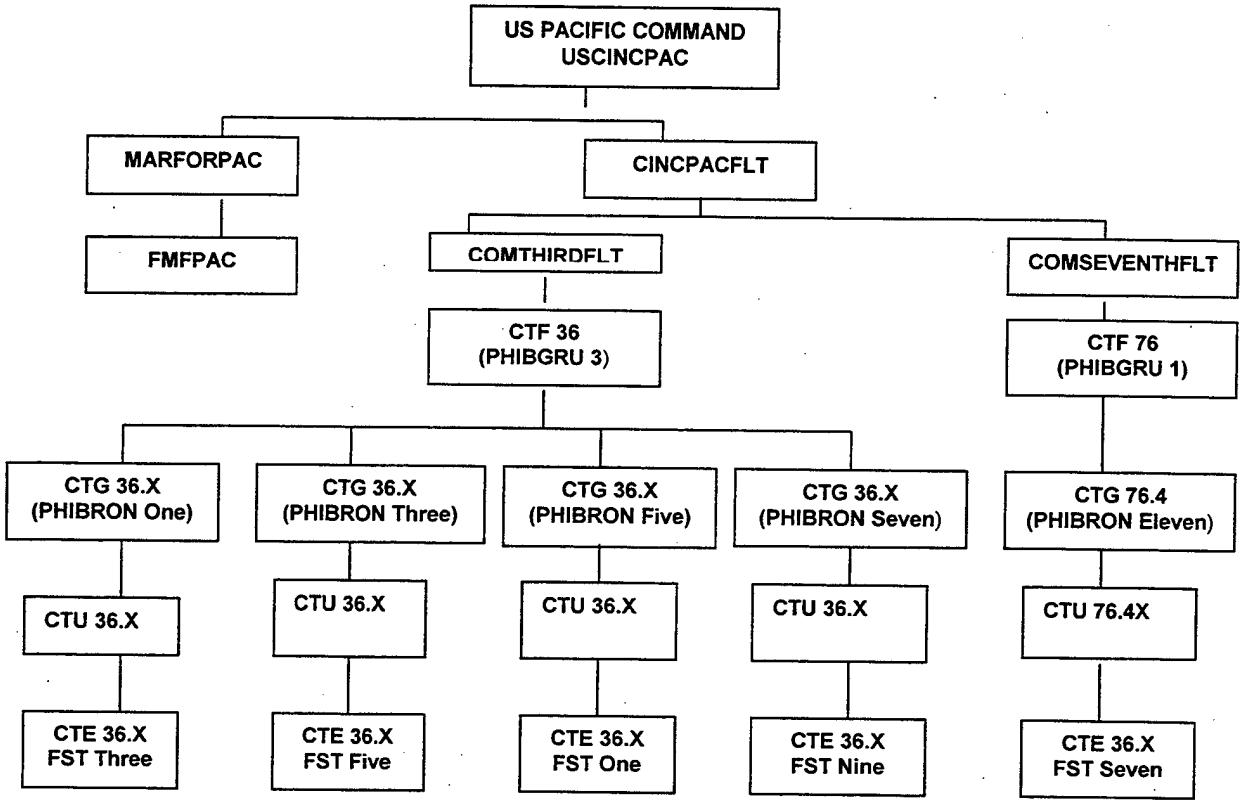

Figure 4. Pacific Fleet Surgical Teams Operational Organization
Source: Navy Expeditionary Warfare Manual

1. Type Commander (TYCOM)

The COMNAVSURFPAC and COMNAVSURFLANT provide medical administrative support to respective COMPHIBRON for FST operations. The COMNAVSURPAC is the medical credentialing and privileging authority for Pacific FST (One, Three, Five, Seven, and Nine). The COMNAVSURFLANT is the medical credentialing and privileging authority for Atlantic FST (Two, Four, Six, and Eight).

2. Fleet Surgical Team Description

Each FST is assigned within the COMPHIBGRU's Fleet Manning Document (FMD) that summarizes its current manpower quantity and quality. The FSTs provide surgical capabilities and operating room preparation; laboratory expertise, respiratory, intensive care ward; and medical evacuations of patients to MTFs for further treatment.

The FST Officer in Charge (OIC) is designated the Commander, Amphibious Task Force (CATF) Surgeon and assigned to the CATF staff. The primary duties are medical advisor to CATF and Senior Medical Authority Afloat over all medical units in the ARG. Additional responsibility includes:[30]

- Develop and execute a medical Plan of Action and Milestones (POA&M) to assess medical capabilities, schedule pre-deployment briefs, and monitor medical material capability to support operation requirements.

- Coordinate medical planning with the Commander Landing Force (CLF) Surgeon to publish the medical Concept of Operations (CONOPS) and evacuation procedures for Navy and Marine Corps personnel within the ARG.

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[29] Commander, Amphibious Group 3 Instruction, Fleet Surgical Team Manual, June 1997.

The FST Division Officer is designated the CATF Medical Regulating Control Officer (MRCO) and assigned to the CATF staff. The primary duties are to establish a medical regulating net and assist Team members with readiness preparation for peacetime training and deployments.

The FST Senior Enlisted Leader (SEL) is assigned to the ship's medical department. The primary duties include integrating Team members into the shipboard environment and providing leadership and training to junior Hospital Corpsmen.

The Team members, except for CATF Surgeon and MRCO, are assigned Temporary Additional Duty (TAD) to the ship's medical department. The ship's Senior Medical Officer (SMO) is in charge of the medical department and responsible for all health care delivery on the platform. When team members are not deployed, they are in Additional Duty (ADDU) status at Naval Hospital San Diego or Naval Hospital Portsmouth to maintain their professional skills.

E. CASUALTY RECEIVING AND TREATMENT SHIP

The CRTS provides Echelon II medical support for Marine Landing Force missions. The amphibious assault ships (LHD/LHA) are designated Primary (PCRTS) or Secondary (SCRTS) depending on the size and capability of medical spaces, casualty capabilities, number of augmenting medical personnel, and medical supplies within the Amphibious Task Force (ATF).[31]

[30] Ibid.

[31] Bureau of Medicine and Surgery Instruction 6440.6, Mobile Medical Augmentation Readiness Team, 11 May 1993.

LHDs are the most versatile and have the largest medical capability. The capabilities include six operating rooms, 26 intensive care unit beds, 46 general ward beds, four quiet room beds, 528 overflow beds, three dental operatories, and ancillary capabilities for laboratories, radiology, and a blood bank. The LHDs require augmentation by 342 medical personnel to achieve casualty treatment capability.[32]

Wartime requirements link directly with platforms and units through the Required Operational Capability (ROC) and Projected Operational Environment (POE).[33] The ROC/POE establish required operational capabilities under a particular environment for the platform to operate. Given these required capabilities and environment, manpower requirements are established for specified conditions and readiness. The ROC elements support specified primary and seconday mission areas which are reported under SORTS. A FST's capability to carry out its assigned mission is reported under Fleet Support Operations (FSO).[34] It outlines a unit's mission statement and manning requirement capability as full or limited, and specifies whether special teams or augmented personnel are required. The ROC symbols specify the desired level of readiness for a particular readiness condition. Table 3.2 summarizes External Personnel Resource modifiers.

[32] Bureau of Medicine and Surgery and Medicine (MED-27), Contingency Fact Book.
[33]Copenhaven, Kimberly, Department of the Navy: Total Health Care Support Readiness Requirement Model, Thesis, Naval Postgraduate School, Monterey, CA, October 1995.
[34]OPNAVINST C3501.310, Required Operational Capabilities for LHD-1 Class, July 1994.

TABLE 3.2 EXTERNAL PERSONNEL RESOURCE MODIFIERS

MODIFIER	FULL (F)	LIMITED (L)
None	Indefinitely manned to design capability	Indefinitely manned less than design capability
Augmentation (A)	Temporarily manned to design capacity using off-watch personnel	Temporarily manned less than design capacity using off-watch personnel
Special Team (E)	Temporarily manned to design capacity using a special team	Temporarily manned less than design capacity using a special team

Source: OPNAVINST C3501.310

The POE specifies varying degrees of condition readiness in which the ship is to operate. The ship must be capable of performing all assigned primary mission areas simultaneously while maintaining either readiness condition I, II, III (wartime/forward deployment cruising readiness), IV (peacetime training underway operations), or V (inport training and maintenance).[35] Table 3.3 summarizes the ship's readiness conditions.

TABLE 3.3. POE CONDITION READINESS

CONDITION	READINESS POSTURE
I	Fully battle ready
II	Modified battle ready
III	Wartime/forward deployment cruising
IV	Peacetime training operations
V	Inport training

Resource: OPNAVINST C3501.310

[35] OPNAVINST C3501.311A, Projected Operational Environment, DDG-51, 30 June 1997.

The LHD/LHA Class amphibious assault ship functions as a PCRTS and amphibious squadron flagship for a MEU evolution. The ROC/POE outlines the medical capability requirements for Navy and Marine Corps units' readiness operations.[36] Because of the conditions in which FST may deploy, the Teams maintain a high level of readiness. Appendix A summarizes an LHD-1, WASP Class amphibious assault ship's medical department ROC/POE.[37]

F. STATUS OF RESOURCE AND TRAINING SYSTEM

The SORTS provides operational Commanders a daily snapshot of the unit's readiness to execute its primary mission. Readiness is the ability of forces, units, or equipment to perform within their primary and secondary mission areas. The combat and support commands report overall SORTS and training readiness, which reflect the status of the unit's personnel, equipment, and training, measured against resources required for their wartime mission.

The FST operational readiness is reported to the Fleet CINC in the same manner as combat force units. However, a shortage in a specific specialty (such as anesthesiology or surgery) can render an entire medical unit incapable of performing its wartime mission.[38] Medical readiness is not specifically tracked through SORTS, since medical capabilities are not assigned as a primary mission for amphibious assault ships. The TYCOM conducts an administrative Medical Readiness Assessment (MRA) survey of the ship medical department's ability to perform its mission requirements.[39] The LHD/LHA

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[36] Ibid.
[37] Ibid.
[38] Ibid.
[39] CINCPAC/LANTINST 6000.1G, Shipboard Medical Department.

medical capabilities are taken into account when assessing operational readiness.

COMPHIBGRU developed medical SORTS to evaluate the FST's level of readiness for peacetime training and operational missions. The modified SORTS are useful in measuring medical readiness in the mission and resource readiness areas. The "C" status tracks capability shortfalls, reflects readiness status, and detects mission readiness trends. The category levels range from "C-1", fully capable ready, to "C-4", not deployable. Table 3.4 outlines the medical SORTS specific criteria.

TABLE 3.4 PACIFIC FLEET SURGICAL TEAMS MEDICAL SORTS

CROVL	
C1	No mission degrading elements, Fully capable in performing mission.
C2	Deployable with minimal deficits
C3	Not deployable, minor deficits
C4	Not deployable, major defects
CREQP	
C1	All equipment onboard
C2	Deployable, minor items on order
C3	Not deployable, minor items on order will not arrive within 30 days
C4	Not deployable, major items on order will arrive within 30 days.
CRPERS	
C1	All personnel aboard
C2	Deployable, minor gaps in non essential billets
C3	Not deployable, mission essential billets gapped with replacement named
C4	Not deployable, mission essential billets gapped with no replacement
CRSUP	
C1	All supplies onboard
C2	Deployable, only minor supplies on order
C3	Not deployable, significant deficits in supplies, on order
C4	Not deployable, significant deficits in supplies, not on order
CRTRNG	
C1	All personnel current in training
C2	Deployable, mission essential training -(BLS, DC, FF,MRN) completed & healthcare providers privileged
C3	Not deployable, training not completed, healthcare providers not privileged courses scheduled
C4	Not deployable, training not completed, healthcare providers not privileged courses not scheduled
FSO	
C1	Fully Capable of performing all missions -ARG surgical support -Medical planning (CATF Surgeon, MRCO)
C2	Deployable, minor deficiencies in mission capability
C3	Not Deployable, major deficiencies, corrections underway
C4	Not Deployable, major deficiencies, corrections not underway

Source: Commander, Amphibious Group Three

G. SUMMARY

This chapter explained how FST requirements were originated. It discussed the operational chain of command and duties associated with FST support for ARG deployments. The ROC/POE described the medical capabilities required for varying conditions of readiness when medical personnel augment the CRTS. Although medical readiness is not a primary mission of the amphibious ship, the medical capabilities are measured through ship medical department MRAs and FST medical SORTS.

Chapter 4 explains the approach used to gather data and evaluate medical readiness data during work-up cycles and deployments. It also examines the effectiveness of FSTs in preparing for ARG training exercises and missions.

IV. MEDICAL READINESS EVALUATION OVERVIEW

A. DATA COLLECTION

The data collection focused on post-deployment lessons learned on Pacific FSTs and limited information from Atlantic FSTs. The FSTs' medical readiness was evaluated against the five SORTS criteria discussed in Chapter Three. The analysis centered on deployment policy, command relationships, mission readiness, and medical readiness assessment during work-up cycles and deployments. Policy addressed guidance and operating procedures used by the FSTs and shipboard medical departments. Command relationships identified working relationships and interaction between the FSTs, Marine Corps medical units, and the ARGs medical departments. Mission readiness looked at personnel turnover, training, medical regulating, material and equipment issues. Medical readiness assessed workload summary and overall contribution to ARG readiness in support of operational requirements.

B. THEME DEVELOPMENT

The data were compiled to identify recurring medical readiness issues related to FST's deployment experiences and segregated into prominent areas to evaluate FST's effectiveness of mission readiness capabilities within the ARGs.

1. Policy

The Operational Plan (OPLAN) provides guidance for all aspects of an operation to accomplish the stated objectives. Based on the latest OPLAN, a deployment Operational Order (OPORD) is prepared for a ship or unit.[40] The

[40] Commander, Naval Surface Force, Pacific Fleet Instruction 6000.1G, Shipboard Medical Department Manual, Chapter 6.

OPLAN and OPORD include medical appendices that contain information and guidance to provide medical support during a Navy training exercise or operation.[41] The medical CONOPS outline various aspects of the operation:

- Medical scenario, personnel strength, length of exercise, or operation, and casualty estimates.
- Medical facilities available, both U. S. military and host nation support.
- Assignment of responsibilities to the ATF command echelons and LF command echelons, with special attention to medical chain of command and specific CATF Surgeon and CLF Surgeon responsibilities.
- Designation of CRTS and arrangements for MMART, FST, or FMF medical unit augmentation personnel.
- Details for casualty handling and routing (medical regulating), (i.e. MEDEVAC and patient distribution control frequencies), and Beach Evacuation Station (BES) locations and details for the appropriate triage of casualties.
- Evacuation policy.
- Blood program.
- Medical logistics, specifically medical supply and resupply system, and redistribution of casualty evacuation material.
- Training requirements for first aid and mass casualty handling.[42]

Embarked medical personnel are integrated as part of the ship's medical department. The LF medical units used medical spaces and supplies when assigned to conduct sick call for their troops; however, the Senior Medical Officer (SMO) is in charge of afloat medical support. The ARG medical assets include the CRTS medical personnel, FST personnel, MEU Command Element (CE) medical personnel, Medical Support Services Group (MSSG) personnel, Battalion Landing Team (BLT) medical personnel, and Aviation Command Element (ACE) medical personnel.

The FST members, except CATF Surgeon and MRCO, are assigned TAD to

[41] Ibid.
[42] Ibid.

the ship's medical department. During deployment, the ship's Commanding Officer (CO) assumes line authority over team members assigned to the medical department.

2. Command Relationships

The command relationships involve leadership, integration, orientation, and assignment of responsibilities for medical units augmenting CRTS during work-up cycles and deployment.

In the past, when FSTs embarked on the CRTS, there have been differing levels of cooperation between shipboard medical and FST personnel. Each medical unit viewed their role as distinct when providing healthcare to Navy and Marine Corps units. Some Teams were more successful at integrating into the shipboard medical departments than others. For example, FSTs One, Three, Eight, and Nine aligned their Teams within the prescribed chain of command, stressed team building, and supported an environment focused on patient care. In contrast, FSTs Six and Seven experienced lack of communication and difficulty over leadership expertise within the shipboard medical department.

Both the CATF and CLF Surgeons have specific medical support planning responsibilities that the CATF requires for casualty medical treatment and evacuation procedures in training exercises and operational missions. The CATF Surgeons, for FSTs One, Three, Eight, and Nine, held meetings with ARG/MEU medical assets to identify equipment and logistics issues, consolidate medical information, and explain various disease threats. The medical

CONOPS were published to identify the medical guardship, watchbills, points of contact, and designated civilian MTFs for emergencies at each port visit.

3. Mission Readiness

Mission readiness is evaluated based upon existing medical support capabilities, available resource and personnel, and preparedness to participate in work up-cycles and deployments. It is essential that FSTs maintain the appropriate specialty-mix, and that Corpsmen are accounted for to sustain medical support readiness.

a. Personnel Readiness

Personnel turnover preparations were hindered in several instances, as pointed out by the Teams.

FST One:

> New members continue to report aboard through work up cycles and during deployment. Starting at Deployment (D) -150 through D-90 mark for getting under way, approximately 71 percent of the officers, along with 75 percent of the advanced technicians, and 25 percent of the General Duty Corpsmen reported to the Team. The extensive turnover rate during the work-up cycle hampered training and preparation of FST for deployment and inhibited procurement of preferred medical supplies before deployment.[43]

FST Three:

> Internist billet gapped towards end of predeployment work ups. A TAD replacement reported onboard first half of the deployment, then the assigned Internist reported 30 August 1999. The assigned General Surgeon had Permanent Change of Station orders releasing him the first few weeks of the deployment. His replacement gapped for a month and turned around to return to CONUS to take board exam necessitating a relief to be flown out to the ship. The final solution was TAD a General Surgeon from another Team with three days notice before departure. The result

[43] OIC, Fleet Surgical Team One, Post Deployment Critique, WESTPAC - 98-2, February 1999.

was deploying without the benefit of predeployment work up and experience, as well as increased expenditure of TAD funds.[44]

FST Six:

> The unit embarkation aboard USS KEARSARGE was fragmented. Most of the Team members embarked for work up cycle, several reported just before deployment. The lack of a standardizing system to be oriented to the medical department and to their newly activated department presented gaps in their knowledge base.[45]

FST Seven:

> This unit is FDNF and does not operate under the standard 180 days work up cycle. The Team had 5 to 10 weeks of sea period with inport period at times, only five weeks. Three essential individuals reported within 180 days of getting underway for SOC exercises. The CATF Surgeon, MRCO, and Independent Duty Corpsman (IDC) all reported approximately 45 days before Belleau Wood ARG left Sasebo. The standard 180 days Pre-overseas Movement (POM) checklist was accelerated and resulted in shortcomings, for correction in future ARG deployments.[46]

FST Nine:

> Only the MRCO was involved in deployment preparation at D-180 mark. By D-90 mark, 63 percent of the personnel had checked aboard including the CATF Surgeon. By D-30 mark, 94 percent were aboard with required training completed in route in many cases. Ideally, all FST members should be present for the intense work-up cycles. FST Nine had no difficulty setting up the surgical suite and integrating into ship's medical department. However, the majority of the personnel had never deployed or worked together as a FST.[47]

b. Training Readiness Skills

It is imperative that FSTs receive appropriate readiness skills training to complete training exercises and operational missions of the Operating Forces. The Teams require training to ensure proficiency in contingency

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[44] OIC, Fleet Surgical Team Three, Post Deployment Critique for WESPAC-99, January 2000.
[45] OIC, Fleet Surgical Team Six, Lessons Learned Report, MARG 2-99, September 1999.
[46] CATF Surgeon, Fleet Surgical Team Seven, Post Deployment, April 1998.

missions and medical skills that include initial emergency procedures for combat injuries, mass casualties evacuations, and shipboard injuries that occur from safety mishaps or training exercises. The operational readiness training efficiency varied among the Teams.

FST Six:

> Training for Team officers within the medical department was severely lacking. Such basic issues as medical emergencies, mass casualty drills, and supplies were barely discussed and input from FST members, with extensive operational experience, ignored.[48]

FST Seven:

> This unit needed training early for exercises, specific information on medical assets and capabilities aboard the ARG ships, and names of ships activated for the deployment.[49]

However, FSTs One, Three, and Nine ensured that CATF Surgeons and MRCOs attended the Amphibious Indoctrination course, a two week ARG/MEU -SOC Staff Planning workshop, and the Landing Force Medical Staff Planning course. The MRCOs and General Duty Corpsmen attended the Task Force Medical Regulating course. As a unit, the Teams participated in Water Survival, Shipboard Fire Fighting, Damage Control, and Chemical, Biological, and Radiological courses. The shipboard orientation included abandon ship, man overboard, general quarters, and mass casualty drills. Additionally, the Teams are certified Basic Life Support and Advance Trauma Life Saving providers.

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[47] OIC, Fleet Surgical Team Nine, Post Deployment Critique for WESPAC 97, June 1998.
[48] OIC, Fleet Surgical Team Six, Lessons Learned Report, MARG 2-99, September 1999.
[49] CATF Surgeon, Fleet Surgical Seven, Post Deployment/Major Exercise Critique, April 1998

FSTs One, Three, and Nine established and identified Medical Regulating Net (MRN) and frequencies during work up cycles. However, the Teams had difficulty bringing up the MRN and used it with limited success. Alternate communications were available to facilitate mass casualties drills, MRN drills, and patient evacuations from the ARG ships to shore-based MTFs.

c. Equipment and Supply Readiness

FSTs Three, Six, and Eight experienced a shortage of essential items before deployment. FST Six augmented the ship for work up cycle and did not received a medical inventory list. When the Team identified critical shortfalls, the ship's medical department did not have the funds to purchase the items. On occasions, the required supplies arrived after the deployment.

4. Medical Readiness Assessment

The medical readiness assessed mission capabilities in workload and overall contribution to ARG readiness in support of operational requirements.

a. Medical Workload Summary

The medical workload summary reviews the ARG/MEU medical units' ability to provide medical and surgical support during training exercises and missions. FST Seven's comments regarding medical support to Operating Forces summed up the Pacific FSTs readiness capability:

> A number of benefits are gained from performing at sea surgery. First, the surgical teams had the opportunity to work together and use equipment. This is reflected in the decision process regarding equipment repairs, personnel training, and supply issues. Medical readiness is positively affected. Second, the ships' received the benefit of avoiding the TAD burden of sending crewmembers and embarked personnel to Naval Hospital Okinawa or Naval Hospital Yokosuka. Third, patients realized the benefit of being assessed,

treated, and followed up by the same surgeon who performed the surgery. Continuity of care is maintained while the patient is allowed to return to duty. Finally, and not to be underestimated, the *espirit de corps* built by allowing the surgical team to perform its primary role is exceptionally beneficial to all involved.[50]

b. ARG/MEU Medical Units Contribution

The ARG/MEU medical units overall contribution to ARG medical readiness during deployments was summarized as follows:

FST One:

> The deployment was an overall success. Any issues and concerns were handled appropriately and in the most efficient manner possible. The Navy and Marine medical units worked together to accomplish a shared goal: to provide the best medical care possible to the sick and injured.[51]

FST Three:

> A very successful deployment characterized by a high level of medical readiness. The Navy and Marine medical components formed a cohesive well-trained team. The available technology was innovatively used to provide a high level of medical care to the Sailors and Marines of the Peleliu ARG.[52]

FST Seven:

> A high level of medical readiness was difficult to achieve throughout the deployment for the following reasons. First, the deployment was longer than usual. Second, supplies became outdated, discarded, and resupply was difficult. The problems encountered with inoperative and non-maintenance equipment and lack of critical supplies are being satisfactorily addressed. The Navy and Marine medical units formed a cohesive team. The problems due to relatively late arrivals of FST leadership were overcome. The standard of medical care delivered to the ARG was excellent. The Belleau Wood medical department acted quickly and decisively in the assessment, treatment, and, when necessary, medical evacuation of patients to ensure a high standard of medical care.[53]

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[50] Ibid.
[51] OIC, Fleet Surgical Team One, Post Deployment Critique for WESPAC 98-2, February 1999.
[52] OIC, Fleet Surgical Team Three, Post Deployment Critique, February 1998.
[53] CATF Surgeon, Fleet Surgical Team Seven, Post Deployment, April 1998.

FST Eight:

> Thankfully, the deployment was lacking any serious emergencies. It would be a good idea to study the projected quantity of medical supplies needed for embarked troops and ships company during Mediterranean deployments. If the ship is expected to provide all medical supplies to the embarked troops while onboard, then the ship's OPTAR should be appropriately augmented. Thankfully with an experienced medical department, the medical personnel anticipated the demand and had adequate essential supplies.[54]

FST Nine:

> The collective efforts of the Navy and Marine medical units during WESTPAC deployment have been acclaimed tremendously successful. On an average day the professional actions of our Corpsmen, nurses, medical regulators, and doctors directly changed a sick or injured into a healthy, competent soldier. Success was measured as: completing medical support of all exercises and missions, maintaining high level of medical readiness for all units, continuing medical training, providing accessibility to quality medical/dental care, transporting casualty patients expeditiously and safely to PCRTS, developing medical CONOPS for all ports and exercises, and 100 percent accountability of all medical evacuated patients until a definitive disposition was determined.[55]

C. SUMMARY

This chapter illustrated that a significant difference exists among the FSTs deployment experiences. The CINCs' policy requires FSTs to attain C-1 status to perform operational readiness requirements for ARG exercises and missions. The FSTs most important role is providing trained medical personnel to support Navy and Marine Corps units. The FSTs' approach to medical readiness requirements differs because the chain of command allows latitude on how to maintain readiness and deployment posture. Readiness can not be

[54] OIC, Fleet Surgical Team Eight, Post Deployment Report, MARG 1-99, May 1999.
[55] OIC, Fleet Surgical Team Nine, Post Deployment Critique for WESPAC 97, Jun 1998.

compromised without directly reducing the ARG/MEU medical units' ability to accomplish their mission.

Chapter V summarizes and draws conclusion about FST's readiness posture in the ARGs.

V. CONCLUSIONS

A. INTRODUCTION

This chapter provides a conclusion about FST's readiness posture in the ARGs. This section answers the primary and subsidiary research questions addressed in the thesis.

B. RESEARCH QUESTIONS

Primary Research Question. *What is the historical evolution and* current state of the Fleet Surgical Teams in Navy Medicine and CINCs readiness doctrine, and how is readiness evaluated?

Lessons learned from past operational missions, Desert Shield/Desert Storm, and DoD downsizing initiatives have influenced medical endstrength and readiness policies. Strategic reengineering efforts haved changed the way Navy Medicine provides health care in peacetime operations and wartime missions. The most critical wartime medical skill requirements needed are oriented toward surgery.

The FDNF surgical teams in Navy Medicine evolved from historically fragmented MMARTs to dedicated medical and surgical assets assigned to the Fleet CINCs to increase efficiencies in meeting mission requirements. The 16 person FSTs provide Echelon II care and deploy with scheduled and unscheduled ARG operations. The FSTs minimized training disruptions associated with medical personnel deployment from MTFs to the Operating Forces. Chapter II and Chapter III described circumstances and consolidated efforts employed by the CNO and Navy Surgeon General to improve the continuum of health care for Navy and Marine Corps forces.

The FSTs are required to maintain a high level of operational readiness to deploy in any environment. The FST's readiness level is evaluated based on five SORTS criteria mandated by PHIBGRU to deploy without any mission and resource degrading elements. The five mission readiness criteria are CRPERS (personnel), CRTRNG (training), CREQP (equipment), CRSUP (supplies), and FSO (fleet support operations). The Teams report C-readiness categories to the CINCs in the same manner as combat units. If mission essential billets are gapped, a Team is considered not able to perform its wartime mission. The FSTs must achieve an CROVL (overall) 'C-1' rating, fully capable to perform all missions, as illustrated in Chapter III.

Subsidiary Q1. *What are the responsibilities and chain of command for FSTs as they pertain to readiness? What polices or guidelines delineate accountability?*

Chapter III discussed FSTs operational chain of command and administrative support for credentialing and priviledging authority. The Team members, except CATF Surgeon and MRCO, are assigned TAD to the ship's medical department when deployed. During the deployment, the ship's CO assumes line authority over team members assigned to the medical department. The Fleet CINCs' policy requires that the CATF Surgeon and MRCO be assigned to the PHIBRON for medical planning and casualty evacuation procedures.

The OPLAN and OPORD include medical appendices that contain information and guidance to provide medical support during a Navy training exercise or operation. Additionally, the CATF operational task (OPTASK)

identifies health services support planning and capabilities for amphibious operations. The CATF Surgeon is designated the Senior Medical Authority Afloat to advise the CATF on all medical assets, capabilities, supplies and equipment procedures, medical regulating and evacuation procedures, and readiness status of the ARG medical units.

Subsidiary Q2. *How many FSTs are required? How are the specialty-mix and training requirements generated and maintained for operational support?*

The FSTs specialty-mix billets were generated from MMART units that included surgical unit, surgical support unit, ancillary unit, and medical regulating. Initially, the medical assets were redistributed to establish four FSTs. Currently, there are nine FSTs assigned to their respective Fleet CINC. The FSTs are permanently assigned to the Fleet CINC to increase effectiveness of specialty medical and surgical support for the Operating Forces.

The TYCOM and PHIBGRU review the medical plans to budget and obtain all medical resources that include personnel, equipment and supplies. Additionally, they ensure that FSTs are appropriately trained and credential for peacetime and wartime missions.

Medical readiness skills training requirements are maintained for professional proficiency, certification, and fleet orientation to perform assigned training exercises and deployments. When not deployed, the Team members are in ADDU status to Naval Medical Center, San Diego or Naval Hospital Portsmouth to maintain professional readiness skills training.

Subsidiary Q3. *What change in policy and procedures are required to address discrepancies?*

Chapter IV noted several discrepancies in mission readiness throughout the work-up cycles and deployments, as determined from the post deployment lessons learned. The lessons learned contained no glaring deficiencies and determined that FSTs contribute positively to overall ARG medical readiness. However, the FSTs should continue to improve SORTS reporting and monitoring procedures. The SORTS streamlines resource tracking and reporting to improve FST's capability in delivering continuum of healthcare for the Operating Forces.

The CATF Surgeon advises the CATF on medical capabilities, planning, and readiness status of ARG medical assets. The CATF Surgeon must continue to monitor both FST and ARG medical readiness, and pay particular attention to the ship's medical department Authorized Minimal Medical Allowance List (AMMAL) inventory levels to support embarked Marine medical units and unforeseen humanitarian missions.

Eliminating the medical supplies and equipment deficiencies are preemptive measures, if identified and tracked before scheduled deployments. The POM checklist is essential at D - 240 mark of getting underway for MEU-SOC training exercises. The CATF Surgeon can task the Team physicians, nurses, and Corpsmen to assess the shipboard medical department for mission and resources areas to comply with administrative MRAs survey and SORTS readiness criteria. This would give sufficient time to inventory, discard, update, and order all essential materials and supplies for the surgical suite, operating

rooms, intensive care ward, laboratory, and blood bank to support the ARG operational requirements.

Additionally, the Fleet CINC medical readiness reporting procedures require a viable program or method to standardize the mission requirements for the nine FSTs. BUMED has published a MMART directive and Medical Augmentation Program that outlines the readiness required for medical augmentation personnel and platforms. The program tracks training and personnel readiness status monthly, quarterly, and annually to maintain overall readiness. The FSTs Division Officers and SELs should incorporate the readiness program guidelines into the Team's orientation procedures.

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LIST OF REFERENCES

1. Bureau of Medicine and Surgery and Medicine (MED-27), *Contingency Fact Book*, 1996.

2. Bureau of Medicine and Surgery Instruction. 6440.5A, *Medical Augmentation Program*, April 1994.

3. Bureau of Medicine and Surgery Instruction. 6440.6, *Mobile Medical Augmentation Readiness Team,* May 1993.

4. CATF Surgeon, Fleet Surgical Seven, *Post Deployment/Major Exercise Critique,* April 1998.

5. Commander, Naval Surface Force, Pacific Fleet Instruction 6000.1G, *Shipboard Medical Department Manual*, Chapter 6.

6. Copenhaven, Kimberly, *Department of the Navy: Total Health Care Support Readiness Requirement Model,* Thesis, Naval Postgraduate School, Monterey, CA, October 1995.

7. Commander Amphibious Group Three Instruction 6440.1B, *Fleet Surgical Team Manual*, June 1997.

8. Department of the Navy, *Final Report of the Medical Blue Ribbon Panel*, Washington, DC, November 1988.

9. Department of the Navy, Director, Medical Plans, Policy, and Operations Division, letter 6440, *Fleet Surgical Teams Compositions,* February 1992.

10. Department of the Navy, Commander Amphibious Group Three, letter 6400, *Fleet Surgical Teams Compositions*, October 1991.

11. Department of Navy, Manual of the Medical Department, Chapter 1.

12. General Accounting Office, *Wartime Medical Care: Personnel Requirements Still Not Resolved,* June 1996.

13. Jeffs, Steven, *The Evolution of Military Health Services System Wartime Manpower Requirement Generation: From the Medical Planning Module to the Medical Analysis Tool,* Thesis, Naval Postgraduate School, Monterey, CA, March 1997.

14. *Matching Fleet Medical Readiness to the New Naval Strategy*, NWC Review, Winter 1997.

15. Naval Warfare Publication: *Deployable Health Services Support Platforms*, (NWP-4-02.4 Part A), August 1996.

16. OIC, Fleet Surgical Team Eight, *Post Deployment Report, MARG 1-99*, May 1999.

17. OIC, Fleet Surgical Team Nine, *Post Deployment Critique, WESPAC 97*, June 1998.

18. OIC, Fleet Surgical Team One, *Post Deployment Critique, WESTPAC 98-2*, February 1999.

19. OIC, Fleet Surgical Team Six, *Lessons Learned Post Deployment Report, MARG 2-99*, September 1999.

20. OIC, Fleet Surgical Team Three, *Post Deployment Critique, WESPAC 97-98*, February 1998.

21. OIC, Fleet Surgical Team Three, *Post Deployment Critique, WESPAC – 99*, January 2000.

22. OPNAVINST 3501.310, *Required Operational Capabilities, LHD-1 (WASP) Class,* July 1994.

23. OPNAVINST 3501.311A, *Projected Operational Environment, DDG-51,* June 1997.

24. Palmero, Michael, *Navy Capabilities and Mobilization Plan Annex Q – Health Service Support*, Thesis, Naval Postgraduate School, Monterey, CA, December 1998.

25. Fleet Marine Force, (FMFM- 4-50) Health Services Support, 1990.

26. Triplett, J. Jr., *The Evolution of the Fleet Hospital Program: From the Cold War Era to the Naval Expeditionary Medical Support System*, Thesis, Naval Postgraduate School, Monterey, CA, December 1997.

27. Weber, T. H, The *THCSRR Model: Determining Navy Medicine's Readiness Manpower Requirements*, Navy Medicine, September-October 1994.

28. Zimble, James, VADM, MC, USN, *Results of the Blue Ribbon Panel*, Navy Medicine, November-December 1988.

APPENDIX A: LHD-1,WASP CLASS AMPHIBIOUS ASSAULT SHIP ROC/POE

FSO 9	(U) PROVIDE MEDICAL CARE TO ASSIGNED AND EMBARKED PERSONNEL		I	IA	FQ	III	IV	V
	FSO 9.1	(U) Conduct sick call.				F	F	F
	FSO 9.2	(U) Conduct physical examinations				F	F	F
	FSO 9.3	(U) Conduct lab diagnostic services requiring: (2) Laboratory technicians *I, IA (L)-Battle casualty support.*	L	L		F	F	F
	FSO 9.4	(U) Conduct basic ward care. *IV, V (L) – Ward care limited to patients not requiring nursing skills or monitoring.* *Note: Full ward care available when MMART aboard.*	F/E	F/E		F/E	L	L
	FSO 9.5	(U) Conduct sanitation and safety inspections and provide preventive medicine instruction.				F	F	F
	FSO 9.7	(U) Conduct physiotherapy services.				F	F	F
	FSO 9.8	(U) Conduct pharmacy services.	F	F		F	F	F
	FSO 9.9	(U) Conduct medical administrative programs.				F	F	F
	FSO 9.10	(U) Conduct on-site emergency medical treatment during hazardous evolutions including flight quarters, underway Replenishment/refueling and amphibious assault boat operations			F	F	F	F
	FSO 9.12	(U) Conduct x-ray diagnostic services	F	F		F	F	L
FSO 10	**(U) PROVIDE FIRST AID ASSISTANCE**							
	FSO 10.1	(U) Identify, equip, and maintain appropriate first aid spaces	F	F		F	F	F
	FSO 10.2	(U) Trained assigned personnel in first aid, self, and buddy aid procedures.				F	F	F
	FSO 10.3	(U) Train stretcher-bearers.				F	F	F

		I	IA	FQ	III	IV	V
FSO 11	**(U) PROVIDE TRIAGE**						
FSO 11.1	(U) Identify, equip, and maintain appropriate first aid spaces.	F	F		F	F	F
FSO 11.2	(U) Train assigned medical/dental personnel in triage care.				F	F	F
FSO 11.3	(U) Provide for augmentation by specialized personnel and equipment.	F	F		F	F	F
FSO 12	**(U) PROVIDE RESUSCITATION**						
FSO 12.1	(U) Identify, equip, and maintain suitable triage spaces.	F	F		F	F	F
FSO 12.2	(U) Train assigned medical/dental personnel in resuscitation.				F	F	F
FSO 12.3	(U) Provide for augmentation by specialized personnel and equipment.	F	F		F	F	F
FSO 13	**(U) PROVIDE DEFINITIVE CARE**						
	Note: Ship must be capable of providing treatment and care for up to 600 combat casualties when a MMART is embarked.						
FSO 13.1	(U) Providing emergency minor surgery by Hospitalman. Identify, equip, and maintain suitable operating spaces, utilizing local anesthesia, appropriate sterilize, laundry, supply and medical instrument support spaces.	F	F		F	F	F
FSO 13.2	(U) Provide for intensive care wards.	F	F		F	F	F
FSO 13.3	(U) Provide for recovery beds.	F	F		F	F	F
FSO 13.4	(U) Provide for augmentation by specialized personnel and equipment.	F	F		F	F	F
FSO 13.5	(U) Provide a blood bank.	F	F		F	F	F
FSO 13.6	(U) Provide suitable care of the dead.	F	F		F	F	F

			I	IA	FQ	III	IV	V
FSO 13	**(U) PROVIDE DEFINITIVE CARE.**							
	FSO 13.7	(U) Provide surgery by Medical Officer (MO), identify, equip, and maintain suitable operating rooms(s) utilizing local, regional, or spinal anesthesia with appropriate sterilize, laundry, supply, and medical instrument support spaces.	F	F		F	F	F
	FSO 13.8	(U) Provide surgery by general surgeon, identify, equip, and maintain suitable operating rooms(s) utilizing local and general general anesthesia with appropriate sterilizes, laundry, supply, and medical instrument support spaces. *Note: Augmentation of ship's Medical Department by Surgical Team and Surgical Support Team required to achieve full capability.* *IV, V (L) – Plan and train.*	F/E	F/E		F/E	L	L
	FSO 13.9	(U) Provide surgery by surgical specialists and Subspecialists; identify equip and maintain suitable operating room(s) utilizing local and general anesthesia with appropriate sterilizers, laundry, supply, and medical instrument support spaces.	F/E	F/E		F/E	L	L
FSO 14	**(U) PROVIDE MEDICAL REGULATION OF CASUALTIES**							
	FSO 14.1	(U) Identify, equip, and maintain suitable spaces.	F	F		F	F	F
	FSO 14.2	(U) Train assigned medical personnel in medical regulation.				F	F	F
	FSO 14.3	(U) Provide for augmentation by specialized personnel and equipment.	F	F		F	F	F
	FSO 14.4	(U) Provide for transfer/evacuation of patients. *Note: Augmentation of ship's medical department by Surgical Team and Surgical Support Team required to achieve full capability.* *IV, V (L) – Plan and train.*						

		I	IA	FQ	III	IV	V
FSO 15	**(U) PROVIDE SUITABLE CONVALESCENT WARD SPACE.**						
FSO 15.1	(U) Provide suitable convalescent ward service. *IV, V(L) – Ward care limited to patients not requiring special nursing skills or monitoring.* *Note: Full ward care available when Surgical team and Surgical Support team embarked.*	F/E	F/E		F/E	L	L
FSO 15.2	(U) Provide for augmentation by specialized personnel and equipment.	F	F		F	F	F
FSO 15.3	(U) Provide associated administrative service.	F	F		F	F	F
FSO 17	**(U) PROVIDE DEFINITIVE DENTAL CARE**						
FSO 17.1	(U) Provide restorative treatment and minor oral surgery including tooth extractions. *IV, V (L) – Battle casualties.*	L	L		F	F	F
FSO 17.2	(U) Provide periodontal treatment including periodontal surgery. *III, IV, V(L) – Emergency treatment only*				L	L	L
FSO 17.3	(U) Provide endodontic treatment. *III, IV, V (L) – Emergency treatment only.*				L	L	L
FSO 17.4	(U) Provide dental prosthesis fabrication and repair. *III, IV, V(L) –Minor or temporary fabrication and repairs.*				L	L	L
FSO 18	**(U) PROVIDE ORAL SURGERY MAXILLOFACIAL**						
FSO 18.1	(U) Identify, equip, and maintain suitable operating room.	F	F		F	F	F
FSO 18.2	(U) Provide for augmentation by specialized personnel and equipment.	F	F		F	F	F

FSO 19	(U) PROVIDE AVIATION MEDICINE SERVICES.	I	IA	FQ	III	IV	V
FSO 19.1	(U) Conduct physical and psychological examinations of candidate and designated aircrewmen as appropriate. *III, IV, V(L) – Flight Surgeon provided by embarked squadron.*				L/E	L/E	L/E
FSO 19.5	(U) Provide aeromedical expertise in aircraft mishap investigations and aviation specific Administrative matters. *III, IV, V(L) – Flight surgeon provided by embarked squadron.*				L/E	L/E	L/E
FSO 19.6	(U) Provide aeromedical expertise in aeromedical evacuation of patients. *III, IV, V(L) – Flight Surgeon provided by embarked squadron.*				L/E	L/E	L/E
FSO 19.7	(U) Provide aeromedical consultation to embarked commanders. *III, IV, V(L)-Flight Surgeon provided by embarked squadron.*				L/E	L/E	L/E

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APPENDIX B. LIST OF ACRONYMS

AC	Active Component
ADCON	Administrative Control
ADDU	Additional Duty
AOA	Amphibious Operation Area
AOR	Area of Responsibility
ARG	Amphibious Readiness Group
ATF	Amphibious Task Force
BES	Beach Evacuation Station
BRP	Blue Ribbon Panel
BUMED	Bureau of Medicine and Surgery
CATF	Commander Amphibious Task Force
CBTZ	Combat Zone
CINC	Commander-In-Chief
CINCLANTFLT	Commander-In-Chief Atlantic Fleet
CINCPACFLT	Commander-In-Chief Pacific Fleet
CINCUSNAVEUR	Commander-In-Chief, U.S. Navy Europe
CLF	Commander Landing Force
CNA	Center for Naval Analysis
CNO	Chief of Naval Operations
CNET	Commander Naval Education and Training
COMNAVSURFLANT	Commander Naval Surface Atlantic
COMNAVSURFPAC	Commander Naval Surface Pacific
COMPHIBGRU	Commander Amphibious Group
COMPHIBRON	Commander Amphibious Squadron
COMMZ	Communications Zone
CONOPS	Concept of Operations
CONUS	Continental United States
CORC	Care Of Returning Casualties
CRT	Contingency Response Team
CRTS	Casualty Receiving and Treatment Ship
DOD	Department Of Defense
DPG	Defense Planning Guidance
FMD	Fleet Manning Document

FMF	Fleet Marine Force
FST	Fleet Surgical Team
LF	Landing Force
LHA	Landing Helicopter Assault
LHD	Landing Helicopter Dock
MEDEVAC	Medical Evacuation
MEU	Marine Expeditionary Unit
MMART	Mobile Medical Augmentation Team
MOSR	Medical Operational Support Requirement
MOOTW	Military Operations Other Than War
MPM	Medical Planning Module
MRA	Medical Readiness Assessment
MRCO	Medical Regulating Control Officer
MRN	Medical Regulating Net
MTF	Medical Treatment Facilities
MTW	Major Theater War
OCONUS	Outside Continental United States
OIC	Officer-In-Charge
OPCON	Operational Control
OPLAN	Operational Plan
OPORD	Operational Order
OPTAR	Operating Target
POE	Project Operational Environment
RC	Reserve Component
ROC	Required Operational Capabilities
SEL	Senior Enlisted Advisor
SMO	Senior Medical Officer
SOC	Special Operations Capability
SORTS	Status of Resource and Training System
TADTAR	Temporary Additional Duty Target
THCSRR	Total Healthcare Support Readiness Requirement

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