

Fleet Medicine Pocket Reference 2001



Surface Warfare Medicine Institute

This booklet is designed to be useful to senior medical officers filling billets for CATF Surgeons and Officers-in-Charge of Fleet Surgical Teams. The information herein is derived from primary sources that are usually identified within the text. Non-referenced information is included in order to tap the experience of previous CATF Surgeons.

Please send all correspondence concerning the content and style of this booklet to CDR Ralph Pene, MC, USN, at the address below. All feedback is useful, and updates are scheduled for release annually. This 2001 edition was updated by CDR Doug Kempf, MC, USNR.

**Surface Warfare Medicine Institute
Building 500, Room 114
50 Rosecrans Street
Naval Submarine Base
San Diego CA 92106-4408
(619) 553-0097
email: lggilleran2@nmcsd.med.navy.mil**

TABLE OF CONTENTS

Acronyms and Abbreviations	5
Bibliography.....	11
Blood Program	14
BUMED-14 Message	23
Casualty Receiving and Treatment Ships	24
CATF Surgeon Tasks.....	30
CLF Surgeon Tasks	32
Communications	33
Crisis Management	36
Echelons of Care.....	37
Fleet Surgical Teams	40
Glossary	45
Liberty & Working Port Visits.....	61
Mass Casualties	63
MEDEVAC	64
Medical Intelligence.....	65
Message Writing	72
MMART	74
M+1 CRTS Wartime Manning	77
Post-deployment Critiques	79
Pre-deployment Checklist (BUMED).....	83
Pre-deployment Checklist (PHIBGRU 3).....	85
Preventive Medicine	89
Quality Assurance/Credentials	94
Ship's Compartment Numbering	97
Shipboard Protocols.....	98
Shipboard Resources Guide	100
Shipboard Terminology	102
Triage	103
Victims & Perpetrators & Alcohol Misuse.....	113
WWW & Telephone List	114

ACKNOWLEDGEMENTS

The following individuals were instrumental in the development of this reference. Their assistance has been invaluable and deeply appreciated.

CAPT John Fahey, MC, USN
CAPT Konrad Hayashi, MC, USN
CAPT Steve Nichols, MC, USN
CAPT T.G. Patel, MC, USN, Ret.
CAPT Terrence Riley, MC, USN
CAPT Adam Robinson, MC, USN
CAPT David Snyder, MC, USN
CAPT Michael Valdez, MC, USN
CAPT Jeffrey M. Young, MC, USNR
CDR Sue Herrold, NC, USN
CDR Doug McMullen, MC, USN
CDR Ken Schor, MC, USN
CDR Dave Taft, MC, USN
LCDR Dennis Moses, MSC, USN, Ret.
LCDR Eric Rasmussen, MC, USN*
LCDR Sally Veasey, MSC, USN
LT Youssef H. Aboul-Enein, MSC, USNR
LT William Hatley, MSC, USN
LT Bruce Thompson, MSC, USN
ENS Claude Long, MSC, USNR

* The originator of the Fleet Medicine Pocket Reference and editor for four years.

ACRONYMS and ABBREVIATIONS

(NWP3, NWP4-02, JCS Pub 1, edited superset)

Composite Warfare Commanders

(Amphibious Ready Groups use an "L" designation instead of the leading "A")

AA Officer in Tactical Command
AB Composite Warfare Commander
AQ Command and Control Warfare Commander
AW Anti-Air Warfare Commander
AS Anti-Surface Warfare Commander
AX Anti-Submarine Warfare Commander
AP Strike Warfare Commander
AR Air Resource Commander

AO area of operation; or Air Officer
AOR area of responsibility
AP armor-piercing
ARG Amphibious Readiness Group
ASBBC Armed Services Blood Bank Center
ASBP Armed Services Blood Program
ASD (HA) Assistant Secretary of Defense (Health Affairs)
ASF aeromedical staging facility
ASMRO Armed Services Medical Regulating Office
ASWBPL Armed Services Whole Blood Processing Laboratory
ATF Amphibious Task Force
ATLS advanced trauma life support
ATO air tasking order

Alphabetical Listing

A
AAA arrival and assembly area
AAAV advanced amphibious assault vehicle
AABB American Association of Blood Banks
ABFC advance base functional components
ACE Air Combat Element
ACLS advanced cardiac life support
ACU Assault Craft Unit
ADAL Authorized Dental Allowance List
AECC aeromedical evacuation coordination center
AELT aeromedical evacuation liaison team
AFMIC Armed Forces Medical Intelligence Center
AJBPO area joint blood program office
ALCC airlift control center
AMMAL Authorized Minimum Medical Allowance List

B
BAS battalion aid station
BB blood bank
BDA battle damage assessment
BES beach evacuation station
BDC blood donor center
BLDRPT blood report
Blood Program acronyms: see Blood Program chapter
BLS basic life support
BPD blood product depot
BSU Blood Supply Unit
BTC blood transshipment center

C
C2 command and control
C2W command and control warfare
C4I command, control, communication, computer & intelligence
CAS close air support
CAT Crisis Action Team

CATF	Commander, Amphibious Task Force	CSSE.....	combat service support element
CBR.....	chemical, biological, and radiological	CTF	Commander, Task Force
CBTZ.....	combat zone		
CCO	Combat Cargo Officer	D	
CE	combat element	DAS	deep air support
CECO.....	Combat Evacuation Control Officer	DASC	Direct Air Support Center
CI.....	counter-intelligence	DET	detachment
CIA	Central Intelligence Agency	DEW	directed energy weapon (usually laser)
CIC	Combat Information Center	DFAS.....	Defense Finance & Accounting Service
CIFS	close-in fire support	DIA	Defense Intelligence Agency
CINC	Commander in Chief	DNBI.....	disease and nonbattle injury
CLF	Commander, Landing Force	DOD	Department of Defense
CLZ	LCAC landing zone	DOS.....	day of supply
CLZA.....	LCAC landing zone support area	DOS.....	Department of State (State Department)
CME	continuing medical education	DOWW	disease occurrence worldwide
CNO	Chief of Naval Operations	DRAW	demonstration, raid, assault, withdrawal (amphib ops)
COC	combat operations center	DTF	Dental Treatment Facility
COMMZ.....	communications zone	DTG.....	date-time group (messages)
CONREP	connected replenishment	DZ.....	drop zone
COMSEC	communications security		
CONUS	continental United States	E	
CP	command post	EAF	expeditionary airfield
CPG	Commander, Amphibious Group (ONE, TWO, or THREE)	EEl.....	essential elements of information
CPR.....	cardiopulmonary resuscitation	ELINT	electronic intelligence
CRRC.....	combat rubber raiding craft	EMB	embarkation
CRTF.....	casualty receiving and treatment facility	EMCON	emission control
CRTS	casualty receiving and treatment ship	EMT.....	emergency medical technician
CSAR	combat search and rescue	EPW	enemy prisoner of war
CSO	Chief Staff Officer (of amphibious squadron – PHIBRON)	EW	electronic warfare
CSS.....	combat service support		
CSSD	Combat Service Support Detachment		

F
 FAC forward air controller
 FCC Federal Coordinating Center
 FCSSA force combat service support area
 FDC fire-direction center
 FEBA forward edge of the battle area
 FEMA Federal Emergency Management Agency
 FFA free-fire area
 FFP fresh frozen plasma
 FIC Fleet Intelligence Center
 FISC Fleet and Industrial Supply Center
 FLTINC Fleet Commander in Chief
 FMF Fleet Marine Force
 FO forward observer
 FOD foreign object damage
 FORSCOM .. Forces Command
 FOS full operating status
 FP frozen platelets; or Family Practice
 FRBC frozen red blood cells
 FSCC Fire-Support Coordination Center
 FSSG Force Service Support Group
 FST Fleet Surgical Team

G
 GCE ground combat element (MAGTF)
 GPMRC Global Patient Movement Requirements Center
 GPS global positioning system
 GQ general quarters
 GYN gynecology

H
 H&S Headquarters and Service Company
 HANDSCO .. Headquarters and Service Company
 HCS Helicopter Coordination Section
 HDC Helicopter Direction Center
 HE high explosive
 HHS health service support

HLSC Helicopter Logistics Support Center
 HNS host-nation support
 HSS helicopter service support
 HST Helicopter Support Team
 HUMINT human intelligence (vs. satellite imagery, radio signal, etc.)

I
 IADS Integrated Air Defense System
 IAW in accordance with
 IDC independent duty hospital corpsman
 IDTC inter-deployment training cycle
 IFF identification, friend or foe
 IMA individual mobilization augmentee
 IP initial point
 IRR Individual Ready Reserve
 ISO International Standardization Organization
 ISIC immediate superior in command
 ITT Interrogator and Translator Team
 IV intravenous

J
 JBPO Joint Blood Program Office
 JCS Joint Chiefs of Staff
 JDS Joint Deployment System
 JIC Joint Intelligence Center
 JMBO Joint Military Blood Office
 JMRO Joint Medical Regulating Office
 JOPES Joint Operations Planning and Execution System
 JORG junior officer requiring guidance (found on collar device)
 JTF Joint Task Force

JULL..... Joint Unified Lessons Learned

K
KIA killed in action

L
LANTFLT..... Atlantic Fleet
LCAC..... landing craft, air cushion (assault hovercraft)
LF..... Landing Force
LFOC..... Landing Force Operations Center
LFSP landing force support party
LOC..... line of communication
LOD..... line of departure
LOI letter of instruction
LZ..... landing zone
LZCP landing zone control party
LZSA landing zone support area

M
MAGTF..... Marine Air-Ground Task Force
MANMED Manual of the Medical Department
MAO master-at-arms
MAO Medical Administrative Officer
MAP medical augmentation program
MARDIV Marine division
MARG Marine Amphibious Readiness Group
MASF Mobile Aeromedical Staging Facility
MCLL..... Marine Corps Lessons Learned
M-Day..... mobilization day
MEDCAPS .. medical capabilities study
MEDEVAC .. medical evacuation
MEF..... Marine Expeditionary Force
MEF (FWD) . Marine Expeditionary Force (forward)
MEPES..... medical planning and execution system
MEU Marine Expeditionary Unit
MIA..... missing in action

MMART Mobile Medical Augmentation Readiness Team
MOPP mission-oriented protective posture
MPF Maritime Pre-Positioning Force
MRCC..... Medical Regulating Control Center
MRCO Medical Regulating Control Officer
MRS medical regulating system
MSC Military Sealift Command; or major subordinate command
MSOC..... Medical Support Operations Center
MSR main supply route
MTF Medical Treatment Facility
MWR Morale, Welfare, and Recreation

N
NATO North Atlantic Treaty Organization
NATOPS..... naval air training and operating procedures
NBC..... nuclear, biological, and chemical
NBG..... naval beach group
NCA..... National Command Authority
NDMS..... National Disaster Medical System
NEO..... non-combatant evacuation operation
NGO non-governmental organization
NOFORN..... not releasable to foreign nationals
NOTAM notice to airmen
NSA National Security Agency
NSN..... national stock number
NWP Naval Warfare Publications

O
O&M operation and maintenance
OAS..... offensive air support
OBJ objective

OCONUS outside continental United States
 OIC..... Officer-In-Charge
 OMFTS..... operational maneuvers from the sea
 OOTW..... operations other than war
 OPCON..... operational control
 OPLAN..... operational plan
 OPNAV..... Office of the Chief of Naval Operations
 OPNAVINST Naval Operations Instruction
 OPLAN..... operations plan
 OPORD..... operations order
 OPSEC..... operations security
 OPSUM..... operational summary (a daily report)
 OPTEMPO.. intensity of operations (e.g., low, high, extreme)
 OSC..... On-Scene Commander
 OTC..... Officer in Tactical Command
 OTH..... over-the-horizon

P
 PACFLT..... Pacific Fleet
 PAHO..... Pan American Health Organization
 PCO..... primary control officer
 PCRTS..... primary casualty receiving and treatment ship
 PCS..... primary control ship
 PIM..... position of intended movement
 PMI..... patient movement item
 POE..... projected operational environment
 POL..... petroleum, oil, and lubricants
 POM..... program objective memorandum
 POM..... pre-overseas movement (as in POM period)
 POMI..... Plans, Operations, and Medical Intelligence Officer

Q
 QR..... quick reaction

R
 RAS..... regimental aid station
 RBC..... red blood cells

RCA..... riot-control agent
 RLT..... Regimental Landing Team
 ROC..... required operational capability
 ROE..... rules of engagement
 ROPU..... reverse osmosis processing unit
 RORO..... roll on - roll off
 ROS..... reduced operating status

S
 SAM..... surface-to-air missile
 SAR..... search-and-rescue
 SATCOM..... satellite communications
 SCM..... ship's cargo manifest
 SEAL..... sea-air-land
 SERE..... survival, evasion, resistance, escape
 SIGINT..... signal intelligence
 SLOC..... sea lines of communication
 SOP..... standard operating procedure
 SORM..... Standard Organization and Regulations Manual of the US Navy (OPNAV 3120.32 series)
 SORTS..... status of readiness and training
 SPLT..... shore party liaison team
 SPECAT..... special category
 STANAG..... standardization agreement
 STP..... Shock-trauma Platoon
 SURGCO..... Surgical Company

T
 T-AH..... hospital ship
 TAML..... theater area (or Army) medical lab
 T/O..... table of organization
 TAC..... Tactical Air Commander
 TACAN..... tactical air navigation system
 TACC..... Tactical Air Control Center
 TACLOG..... Tactical-Logistical Group
 TACRON..... Tactical Air Control Squadron
 TAD..... Tactical Air Director
 TADC..... Tactical Air Direction Center
 TAO..... Tactical Air Observer

TAOC	Tactical Air Operations Center	TRAC2ES	TRANSCOM's regulating command and control evacuation system
TAR	tactical air request (net circuit)	TRANSCOM	Transportation Command
TEWA	threat evaluation and weapons assignment	TRAP	tactical recovery of aircraft and personnel
TF	Task Force	TYCOM	Type Command
TFMRS	task force medical regulating system	U	
TOC	Tactical Operations Center	UDT	Underwater Demolition Team
TOW	tube-launched, optically-tracked, wire-guided (missile)	UNREP	underway replenishment
TPFDD	time-phased force and deployment data	USACOM	United States Atlantic Command
TPMRC	Theater Patient Movement Requirements Center	USAF	United States Air Force
		V	
		VERTREP ...	vertical replenishment
		V/STOL	vertical/short take-off and landing
		W	
		WB	whole blood
		WIA	wounded in action
		WHO	World Health Organization
		WMCCS	worldwide military and command control system

FLEET MEDICINE BIBLIOGRAPHY

The following publications/references are for use in planning and delivery of fleet medical support. Most of these are directly referred to in NWP4.02, Operational Medical and Dental Support. Those with a double asterisk (**) have associated Medical Correspondence Courses available through the Naval School of Health Sciences, Portsmouth (www-nshspts.med.navy.mil/corres/courses.htm)

AFSC PUB 1

The Joint Staff Officer's Guide

BUMED INST 3400.1 Series

Operational Concept for Medical Support and Casualty Management in Chemical and Biological Warfare Environments

BUMED INST 5360.1 Series **

(NAVEDTRA 13154)
Decedent Affairs

BUMED INST 5430.6 Series

BUMED Organization Manual

BUMED INST 6200 Series **

(NAVEDTRA 13112)
General Information on Preventive Medicine

BUMED INST 6300.2 Series

Medical Services and Outpatient Morbidity Reporting System

BUMED INST 6320.1 Series **

(NAVEDTRA 13113)
Medical Regulating To and Within the Continental United States

BUMED INST 6440.5 Series

Medical Augmentation Program

BUMED INST 6470.10

Initial Management of Irradiated or Radioactively Contaminated Personnel

BUMED INST 6700.13 Series

Authorized Medical / Dental Allowance List for U.S. Naval Vessels, Fleet Marine Force, and Other Elements of the Operating Forces

BUMED INST 6700.36 Series

Medical and Dental Equipment Maintenance and Repair Manual

CINCPACFLT/CINCLANTFLTINST

6400.1 Series

Mobile Medical Augmentation Readiness Team (MMART) Supply Block

DA Pamphlet 27-1

Treaties Governing Land Warfare (Geneva Conventions)

Defense Intelligence Agency

Manual (DIA M) 59-1

Users Guide to Intelligence Dissemination / Reference Services

DOD 6420.1 Series

Organizational Functions of the Armed Forces Medical Intelligence Center

DOD 6480.4 Series

DOD Blood Program: Mobilization Planning Factors

FMFM 1-8 / NWP 3-02.1

Ship to Shore Movement

FMFM 4

Combat Service Support

FMFM 4-50

Medical and Dental Support, U.S. Marine Corps

FMFRP 0-14

Marine Corps Supplement to DOD Dictionary of Military and Associated Terms

Joint Pub 1-02

DOD Dictionary of Military and Associated Terms

Joint Pub 3-02

Joint Doctrine for Amphibious Operations

Joint Pub 4-02

Doctrine for HSS in Joint Operations

Joint Pub 4-02.1

JTTP for Health Service Logistics Support in Joint Operations

Joint Pub 4-02.2

JTTP for Patient Evacuation in Joint Operations

JOPES Volume I

Joint Operations Planning and Execution System, Medical Planning and Execution System (MEPES; formerly JOPS)

JOPS Volume I

Joint Operation Planning System, Volume I (Deliberate Planning Procedures)

JOPS Volume III

Joint Operation Planning System, Volume III (ADP Support), Appendix U (Medical Planning Module (MPM))

LFM 01 / NWP 22 / FM 31-11 / AFM 2-53

Doctrine for Amphibious Operations

MCO 6700.2 Series

Medical and Dental (Class VIII) Materiel for Support of the Fleet Marine Force

NAVMAT P-4000-2

Logistic Reference Data

NAVMEP P-117 (Available on**Virtual Naval Hospital (VNH)****website and VNH CD)**

Manual of the Medical Department (MANMED)

NAVMEP P-5010

Preventive Medicine Manual

NAVMEP P-5041

The Treatment of Chemical Agent Casualties and Conventional Military Chemical Injuries

NAVMEP P-5047

Medical Support in Joint Operations (1972)

NAVMEP P-5052

Occupational and Environmental Health Prevention Treatment and Control of Heat Injury

NAVMEP P-5055

The Radiation Health Protection Manual

NAVMEP P-6530

Joint Blood Program Handbook, (ASBPO), January 1998

NAVMEP INST S4812.1 Series

Bureau of Medicine and Surgery

NAVMEP INST 6321.1 Series

Bed Capacity and Licensed Beds

NDP 1 ** (NAVEDTRA 13158)

Naval Warfare

NDP 2 ** (NAVEDTRA 13159)

Naval Intelligence

NDP 4 ** (NAVEDTRA 13158)

Naval Logistics

NWP 5 ** (NAVEDTRA 13160)

Naval Planning

NWP 6 ** (NAVEDTRA 13161)

Naval Command and Control

NWP 1-01

Naval Warfare Publication System

NWP 1-02

Naval Supplement to the DoD Dictionary of Military and Associated Terms

NWP 3-02.1 (Formerly NWP 22-3) /

FMFM 1-8

Ship to Shore Movement

NWP 4-02 ** (NAVEDTRA 13158)

Operational Health Service Support

NWP 4-02.1 ** (NAVEDTRA 13158)

Health Service Support Logistics

NWP 4-02.2

Patient Movement, Part A: Naval Expeditionary Forces Medical Regulating

NWP 4-02.3

Planning, Operations, and Medical Intelligence, Part B: Medical Intelligence

NWP 4-02.3

Planning, Operations, and Medical Intelligence, Part D: Operations Other than War

NWP 4-02.4 ** (NAVEDTRA 13158)

Deployable HSS Platforms, Part A:
Fleet Hospitals

NWP 4-02.4

Deployable HSS Platforms, Part B:
Hospital Ships (T-AH)

NWP 4-02.4

Deployable HSS Platforms, Part C:
Forward Deployable Laboratory

NWP 4-02.6

Clinical Specific HSS, Part C:
Women's HSS in Operational Settings

NWP 4-02.7

Occupational and Environmental
Health Services Support

NWP 11

Naval Operational Planning

NWP 11-3

Characteristics and Capabilities of
U.S. Navy Aircraft

NWP 22-3 (Now NWP 3-02.1)

Ship to Shore Movement (see also
FMFM 1-8)

NWP 65-0-1

Characteristics and Capabilities of
U.S. Navy Combatant Ships

OPNAV INST 1000.16 Series

Manual of Navy Total Force
Manpower

OPNAV INST S 3061.1 Series

The Navy Capabilities and
Mobilization Plan

OPNAV INST 3061.2 Series

Total Force Manpower Mobilization
Plan

OPNAV INST 3100.6 Series

Special Incident Reporting (OPREP-3)
Procedures

OPNAV INST 3120.32 Series

Standard Organization and
Regulations of the U.S. Navy

OPNAV INST C 3501.2 Series

Naval Warfare Mission Areas and
Required Operational Capability /
Projected Operational Environment
Statement

OPNAV INST C 3501.161 Series

Projected Operational Environment
(POE) and Required Operational
Capabilities (ROC) for the T-AH 19
Class Hospital Ship

OPNAV INST C 3501.176 Series

Projected Operational Environment
(POE) and Required Operational
Capabilities (ROC) for the Combat
and Communications Zone Fleet
Hospitals and Rapidly Deployable
Medical Facility (RDMF)

OPNAV INST 4630.9 Series

World Wide Aeromedical Evacuation

OPNAV INST 5430.48 Series

Office of the Chief of Naval
Operations (OPNAV) Organization
Manual

OPNAV INST 6000.1 Series

Management of Pregnant
Servicewomen

OPNAV INST 6530.4A

Navy Blood Program

OPNAV PUB 41P3 Series

Table of Advance Base Functional
Components with Abridged Initial
Outfitting Lists

SECNAV INST 1300.13 Series

Navy Personnel Augmentation for the
Fleet Marine Force (FMF)

SECNAV INST 6600.1 Series

Preventive Dentistry Program

STANAG 2879

Principles of Medical Policy in the
Management of a Mass Casualty
Situation

T-AH 19 Class Hospital Ship

General Information Manual

BLOOD PROGRAM

(NAVMED P-6530 (1/98) & NWP4-02, App. K, edited superset)

Frozen Blood Capabilities:

<u>Ship</u>	<u>Deployment</u>	<u>RBCs</u>	<u>FFP</u>	<u>Platelets¹</u>
LHA	Contingency	475	20	50 ²
	Mobilization	950	40	TBD
LHD	Contingency	665	28	50
	Mobilization	1330	56	TBD
LPH	Contingency	0	0	0
	Mobilization	0	0	0
T-AH	Contingency	2375	100	25
	Mobilization	2850	120	TBD
Fleet Hospital	(no frozen blood)	-	-	-

CONCEPT OF OPERATIONS

Fluid and Blood Product Availability:

1. **Echelon I:** Ringers Lactate and human albumin
2. **Echelon II:** Ringers Lactate, human albumin, Group O red blood cells, liquid
3. **Echelon III:** Ringers Lactate, albumin (25 percent), red blood cells (liquid and frozen), fresh frozen plasma, platelet concentrate
4. **Echelon IV:** Ringers Lactate, albumin (25 percent), red blood cells (liquid and frozen), fresh frozen plasma, platelet concentrate
5. **Echelon V:** Full range of resuscitation fluid and blood products

Planning Factors and Issues: (DoD INST 6480.4)

- Four units of red blood cells per initial admission of each WIA and DNBI.
- One technician and two cell washers can deglycerolize 48 units of frozen blood cells in 24 hours. Assign staff for 12-hour shifts and 7-day work weeks.

¹ We are not yet licensed by the FDA for frozen platelets and cannot count on them.

² References to platelets should include "if available" since the five-day shelf life means providing them may be impossible. The ASBPO will probably not meet theater needs until platelets with longer shelf life are available or frozen platelets become licensed.

- There is NO FROZEN BLOOD RESUPPLY TO SHIPS. Once frozen red cells are used by the LHDs, LHAs, and T-AHs, expect no additional frozen blood from the blood product depots (BPDs). Frozen blood is a transition into liquid blood; count on it for the first few days until the liquid blood pipeline is established. Hence, the early establishment of the pipeline of BSUs, BTCs, AJBPO, and JBPO is imperative.
- Walking Blood Bank: This is a tertiary source of blood (i.e., to be used only after liquid and frozen blood sources have been depleted (CNSL/P 6000.1 series). However, walking blood bank response should be checked frequently. Activate the Walking Blood Bank (or parts of it) during mass-casualty drills.
- **EXTREMELY IMPORTANT:** Meet OPNAV 6530.4A requirements: Save the donor card, a frozen plasma sample, and the correct donor / unit numbers. Report transfusions on ships to BUMED (code 273) for subsequent tracking in the future. This is a BIG ISSUE now, especially with HIV, HTLV, and hepatitis C.
- Prior to deployment, acquire all message "go-bys" for bringing blood to the ship if needed (a task for the senior advanced lab tech).

BLOOD PROGRAM ACRONYMS

AABB **American Association of Blood Banks**

AJBPO **Area Joint Program Office** (see JBPO, below),
Component Command level.

ASBBC **Armed Services Blood Bank Center.** An armed service staffed blood bank with a Service assigned as executive agent, responsible for the collection, processing, and storage of blood products. The ASBBC provides blood products for medical treatment elements of two or more of the armed services.

ASBP **Armed Services Blood Program**

ASBPO **Armed Services Blood Program Office**
Tri-service staffed, joint field operating Agency,
with Army as DoD Executive Agent. CONUS

based. The overall DoD manager for blood and BP (class VIII B) during military contingencies and, when directed, for civilian relief efforts.

- ASWBPL.....Armed Services Whole Blood Processing Laboratory.** Tri-service with USAF as Executive Agent. Shipment from CONUS blood banks to Unified Combat Command BTCs or TBTCs.
- BDC.....Blood Donor Center.** Component staffed. Requires FDA license.
- BPBlood Products**
- BSU.....Blood Supply Unit.** Component staffed. Receives BPs from BTCs and/or TBTCs or BPDs; issues those products to MTFs in assigned area.
- BTC.....Blood Transshipment Center.** USAF staffed. Middle man responsible to receiving, storing, re-icing, and shipping blood. See also TBTC (Transportable Blood Transshipment Center)
- BPD.....Blood Product Depot.** Component staffed. Strategic storage of frozen BP in a Unified Combatant Command. DoD Blood Program equivalent to Pre-Positioned Force.
- JBPO.....Joint Blood Program Office.** Tri-service staffed, overall joint BP management for Unified Combatant Commander. (cf: SBPO)
- SBPOService Blood Program Office.** Component staffed, Coordination and management of that **Service's Blood Program.**
- TBTC.....See BTC above.** USAF. Transportable to locations with minimal infrastructure.

BLOOD SUPPORT ACTIVITIES

Blood Resources Management and Support

Joint Blood Program Office - Each unified command has been requested by the Armed Services Blood Program Office to designate a joint health office to implement DoD blood program policies and coordinate the blood programs of the unified command components. The JBPO will be the single interface with the Armed Services Blood Program Office in CONUS. Normally, the JBPO will collocate with the Theater

Patient Movement Requirement Center (TPMRC). The JBPO will redistribute blood among regions in the theater and will request blood supply from CONUS. The JPBO will submit a daily blood situation report to the Armed Services Blood Program Office during the contingency using the appropriate format (Annex A). Information copies will be provided to each AJBPO and other agencies as required.

Area Joint Blood Program Office - Unified commands have been requested by the Armed Services Blood Program Office to establish AJPBOs as required. They will implement the unified command blood program policies, coordinate the blood programs of the unified command components within their area, and manage blood products in the assigned BTC. Normally, the AJPBO will collocate with the Area TPMRC. The AJPBO will redistribute blood among components in the theater or request blood supply from the JBPO. The AJBPO will submit a daily blood situation report to the JPBO using the appropriate format (Annex A). Information copies will be provided to each component blood products depot unit and other agencies as appropriate.

Blood Transshipment Centers - The USAF operates the BTCs. The USAF is planning to staff and equip these centers to store and issue up to 3,000 units each of liquid and frozen blood products on a daily basis. Determining the numbers and locations of the centers is a responsibility of the unified command and will be adequate to support each unified command component's blood requirements on an area basis. Normally, the Navy or Marine Corps will arrange transportation to obtain blood from the BTC for Navy or Marine Corps units. Blood issue to the Navy and Marine Corps will be based on a daily allocation system established by the theater JMBO. The allocations will be modified as required.

Frozen Blood Depots - The Navy operates one frozen blood depot in Sigonella, Sicily, and one in Okinawa, Japan. These depots have the capability to store 40,000 and 10,000 units of frozen blood, respectively. Each depot has one Medical Service Corps officer, Naval Officer Billet Code 0866; one enlisted technician, Navy Enlisted Classification 8506; and four civilian technicians, GS-644-04/05. These depots will provide

frozen blood products to appropriate medical platforms upon direction by the AJPBO. The Army is also planning to establish frozen blood depots to store a total of 75,000 units of frozen blood products. The USAF is planning to store 50,000 units of frozen blood in Armed Services Whole Blood Processing Laboratories in CONUS.

Blood Supply Units - The Navy and Marine Corps will establish BSUs as recommended by the JBPOs. Personnel at these supply points will, upon direction by the AJPBO, arrange or provide transportation for blood products from the BTCs to the BSUs and then coordinate shipment to Navy or Marine Corps field medical units, Fleet Hospitals, and ships. The following units are likely to function as BSUs:

1. Frozen blood depots.
2. USMC units where medical personnel are responsible for coordinating blood and clinical fluids support.
3. FSSG detachments in the theater of operations.
4. Blood donor centers at Naples, Italy; Rota, Spain; and in the United Kingdom.

Medical Field Refrigerator - A lightweight, refrigerated blood box (NSN 410-01-287-7111) operating from direct or alternating current, containing 30 to 50 units of red blood cells. It has been shipped to the field medical supply activities by the Defense Personnel Support Center.

Frozen Blood Container - The USAF developed a shipping and storage container for frozen blood products to transport them without dry ice. It can be ordered through the local medical stock. The stock number is 814013571551 on the Management Data Listing.

Blood Box Management - Whenever possible, blood will be transported from blood supply points in boxes provided by the intended recipient. When the recipient has no box, attempt will be made to return boxes used to ship blood to the blood supply point or to exchange empty for full boxes.

Frozen Blood Management - Assure that Standard Operating Procedure (SOP) is clear on the new USAF frozen blood container and explains the proper handling of the eutectic solutions. To reuse the solutions, they must be COMPLETELY

thawed to room temperature and then refrozen at –65C or lower.

Communications - All blood reports and blood shipment reports are sent using standard Armed Services Blood Program Office voice, message, and/or computer-generated blood report formats. The US Message Text Format is the basis for voice and message blood reports. The Armed Services Blood Program Office plans to have the Defense Systems Support Command automate the ASBP blood banks by developing the Defense Blood Standard System. The Theater Army Medical Management Information System has been designated to automate Army activities in the theater and modernized to support the Navy Fleet Hospitals as the Fleet Hospital blood bank module. Any computer systems purchased for CONUS blood collection stations will be compatible with the Defense Blood Standard System, and computer systems purchased for OCONUS MTFs shall be compatible with the Theater Army Medical Management Information System. The Armed Services Blood Program Office requires that the Theater Army Medical Management Information System and the Defense Blood Standard System also be compatible.

Walking Blood Bank - SOP will be clear that blood from walking donors is collected properly. OPNAV instruction require completion of donor cards, saving of frozen blood samples, and correct donor / unit numbers to identify the donor card, donor frozen sample, and unit number. This allows the donated units to be tested and "look-back" for HIV, HCV, etc., to be accurately accomplished.

Pre-qualifying walking donors in CONUS military blood banks just prior to deployment is a method used by some deploying units. However, regardless of pre-qualification, SOP must be followed for each donated unit.

BLOOD ISSUES ASHORE — LANDING FORCE
Echelon I, Unit Corpsman and Battalion Aid Station

Resuscitation fluids: Ringers Lactate, human albumin.

Blood / blood products: None.

Echelon II, Shock-trauma Platoons

Resuscitation fluids: Ringers Lactate, human albumin.
Blood / blood products: Frozen blood, Group O liquid blood

Echelon II, Surgical Company

Resuscitation fluids: Ringers Lactate, human albumin .
Blood / blood products: Liquid / frozen blood, fresh frozen plasma, platelet concentrate.

Operational Aspects - The CATF Surgeon or CLF Surgeon will assess blood resources / requirements daily and report to the AJBPO. The CATF Surgeon will coordinate blood and fluid support for the medical battalion from the CRTS, using medical field refrigerators and standard blood boxes. When the CRTSs leave the amphibious ops area, the medical battalion must rely on the medical logistics company or the AJBPO for blood. If no liquid blood is available, blood may be harvested from LF personnel or from the ship's crew (before leaving the amphibious ops area).

Shock-Trauma Platoon - Each STP can draw 240 units of blood and can process and crossmatch 1,000 units. Each STP can store 120 units in field refrigerators. Occasionally, a STP may be augmented with a surgical support platoon, which has a blood bank capacity equivalent to that of a STP.

Amphibious Assault - Personnel responsible for management of clinical fluids and blood products will report to the CATF Surgeon or LF Surgeon daily. Consider locating a clinical fluids squad with the Surgical company and a clinical fluids platoon with the Medical Logistics Company. These squads can thaw and wash frozen blood and receive and distribute liquid blood. Submit daily blood reports to the AJBPO. The CRTS will supply thawed and washed using standard blood boxes and medical field refrigerators. Frozen blood will be transported in the new shipping and storage containers for frozen blood. Prior to the CRTS leaving the amphibious ops area, or the blood supply aboard the CRTS being depleted, the CLF Surgeon will request more blood / blood products from the AJBPO.

Surgical Company - If liquid or frozen blood is unavailable or unobtainable, each Surgical Company has the capability to

draw 720 units and process and cross-match 3,000 units. Storage capability in current field refrigerators is 360 units.

Organizational Aspects - Resuscitation fluids and blood products transported ashore will be handled by the STP, the evacuation platoon at the Beach Evacuation Station, the helicopter support team evacuation station, and medical personnel charged with coordinating blood / clinical fluids for the Surgical or Medical Logistics Company. The CLF Surgeon or representative will manage blood resources and requirements. If frozen blood is needed on the beachhead, deglycerolize it on the LHA / LHD, then ship it ashore.

Transportation - Resuscitation fluids and blood products will be transported ashore primarily by helicopters dispatched to evacuate casualties. A secondary means is ground vehicle landing craft or amphibious landing craft. Transport of resuscitation fluids forward to regimental and BASs will be by any means available, depending heavily on vehicles used for medical evacuation. Additional delivery methods - Navy emergency air cargo delivery systems, low-altitude parachute extraction systems, and high-speed low-altitude - have been successfully tested and may be available. Blood products requested from and assigned by the AJBPO can be picked up or delivered by helicopter from the nearest BSU or BTC assigned by the AJBPO.

BLOOD ISSUES AFLOAT

Echelon II

Resuscitation Fluids: Ringers Lactate, human albumin
Blood / Blood products: Frozen / Liquid

Operational Aspects

Larger ships and CRTSs will possess the capability to process frozen blood products stored aboard those and other ships within the Task Force. For resupply, ships will contact the TF medical officer who will subsequently contact the AJBPO as needed. It is very important to identify blood resupply points during this communication. Smaller ships will rely on the larger ships and CRTS for blood support. Use the walking blood bank as a tertiary blood source when neither liquid red blood cells nor thawed and washed cells are available. Liquid blood will be transported to other ships in standard blood boxes with 14 lbs. of wet glistening ice or in medical field refrigerators. Frozen blood will be transported in the new shipping / storage container.

One technician with two cell washers can deglycerolize 48 units of frozen red blood cells in 24 hours, staffing based on 12-hour / 7-day work week. Blood aboard ship will be managed by embarked medical personnel and transported by supply and logistics personnel. The Task Force medical officer will manage blood resources and requirements.

Transportation

Blood can be transported between ships by helicopter or high-line. Resupply of frozen or liquid blood from nearby blood supply points can be transported by helicopter. If distances are prohibitive, blood can be delivered by Navy emergency air cargo delivery system.

THE BUMED-14 MESSAGE

(Do Not Leave Homeport Without It)

LT Youssef H. Aboul-Enein, MSC, USNR

Mr. Jeffrey Stiech, BUMED 14

Every fiscal year BUMED-14 issues a message, Subj: FYXX CENTRALLY MANAGED ALLOTMENTS. This message contains accounting data that can be used for foreign hospitalizations, ambulance services, ancillary and non-medical attendant fees FOR ACTIVE DUTY ONLY. Use this message to pay all your foreign medical bills. The only requirement is that upon the completion of care you forward all copies of paperwork, medical records, and invoices to BUMED-14 (MED 14L, DSN 762-3577). This is important as it facilitates payment when the bill reaches DFAS (Defense Finance Accounting Service) and avoids embarrassment for your command.

DO NOT DEPLOY WITHOUT THIS MESSAGE.

CASUALTY RECEIVING & TREATMENT SHIPS

(NWP4-02, Section 5, edited subset)

Amphibious Task Force CRTSs

After troops debark for ship-to-shore movement, specific ships of the ATF are designated as primary CRTSs to provide Echelon II HSS to the landing force during amphibious operations. Primary CRTSs have laboratory (including blood) and radiology capability to support surgical suites. During amphibious ops, primary CRTSs are staffed as necessary to provide extensive trauma support. The ships normally designated as the primary CRTSs are the LHA, and LHD class amphibious assault ships.

The CATF may designate amphibious ships as secondary CRTSs. These may include any class ship with the capability to receive and treat casualties, if appropriate medical materiel and personnel are available to provide resuscitative care. Ships normally designated as secondary CRTSs include LPD, LSD, LKA, LST, and LCC class ships.

LHA [Amphibious Assault Ship (General Purpose)]

The LHA can transport approximately 1,900 troops along with the helicopters, boats, and amphibious vehicles required for landing them. LHAs are capable of receiving casualties from helicopter and waterborne craft and are designed to function as primary CRTSs in amphibious operations.

LHA MEDICAL FACILITIES

Operating Rooms	
Major	2
Minor	1
Intensive Care Unit Beds ...	17
Ward Beds	48
Overflow Beds	0
Ancillary:	
Lab / Xray	yes
Blood Bank	yes

LHA MEDICAL MANNING

Medical Corps	1
Dental Corps	1
Nurse Corps	0
Anesthesia Provider	0
Medical Service Corps	1
Hospital Corpsmen	16
Dental Technicians	3
Dental Operations	3

LHD [Amphibious Assault Ship (Multi-Purpose)]

The LHD is the newest, largest, and most versatile amphibious assault ship. Externally, it resembles an aircraft carrier. The LHD is capable of transporting approximately 1,800 troops along with the helicopters, boats, and amphibious vehicles required for landing them. LHDs have the largest medical capability of any amphibious ship currently in use. LHDs are capable of receiving casualties from helicopter and waterborne craft and are designed to function as primary CRTSs in amphibious operations.

LHD MEDICAL FACILITIES

Operating Rooms	6
ICU Beds	17
Ward Beds	47
Overflow beds	60
Ancillary:	
Lab	yes
X-ray.....	yes
Blood Bank.....	yes

LHD MEDICAL MANNING

Medical Corps	2
Dental Corps	1
Nurse Corps	0
Anesthesia Provider	0
Medical Service Corps	1
Hospital Corpsmen	18
Dental Technicians	4
Dental Operations	0

LPD (Amphibious Transport Dock)

LPDs are used to embark, transport, and off-load components of a LF using landing craft and amphibious vehicles. LPDs have limited helicopter lift capability and carry 900 to 1,000 troops. They could be used as emergency or overflow CRTSs if augmented with medical personnel and supplies.

LPD MEDICAL FACILITIES

OR (Minor Surgery)	1
ICU Beds	0
Ward Beds	13
Quiet / Isolation Beds	4
Overflow Beds:	0
Ancillary Capabilities:	
Lab	yes
X-ray.....	yes

LPD MEDICAL MANNING

Medical Corps	1
Dental Corps	0
Nurse Corps	0
Anesthesia Provider.....	0
Medical Service Corps	0
Hospital Corpsmen	6
Dental Technicians	0
Dental Operations	0

LSD (Dock Landing Ship)

Although called a 'landing ship,' the LSD does not beach. These ships are similar to LPDs with larger well decks and more limited troop and cargo carrying capacities. The main function of a LSD is to serve as a mother ship for transporting, repairing, and maintaining landing craft and amphibious vehicles. The older LSDs are not suitable to be CRTSS. LSDs 41 and newer offer limited use as CRTSS if augmented with medical personnel and supplies. Only the newer LSDs have a physician aboard.

LSD MEDICAL FACILITIES

Operating Rooms 0
Intensive Care Unit Beds 0
Ward Beds: 9 [LSD-41] 8
Quiet / Isolation Beds 2
Overflow Beds 100
Ancillary Capabilities:
 Lab and X-ray yes

LSD MEDICAL MANNING

Medical Corps0
 [LSD 41 has 1]
Dental Corps0
Nurse Corps0
Anesthesia Provider0
Medical Service Corps0
Hospital Corpsmen5
Dental Technicians0

LST (Tank Landing Ship)

The mission of LSTs is to unload vehicles and supplies directly onto the beach. Medical capabilities of LSTs are limited; they have no dental capability. The large tank deck (designed for vehicle stowage) may be used as a casualty treatment space if an appropriate shelter is installed. The advantage of establishing casualty care facilities on an LST lies in its ability to reach the beach, evacuate casualties, and move away. Elements of a fleet surgical team provide personnel and equipment for this potential use.

LST MEDICAL FACILITIES

Operating Rooms 0
Intensive Care Unit Beds 0
Ward Beds 4
Overflow Beds 50
Quiet / Isolation Beds 0
Ancillary Capabilities
 Basic Lab yes

LST MEDICAL MANNING

Medical Corps0
Dental Corps0
Nurse Corps0
Anesthesia Provider0
Medical Service Corps0
Hospital Corpsmen3
Dental Technicians0

LCC (Amphibious Command Ship)

LCCs serve as command centers for amphibious operations. These ships are equipped with sophisticated electronic and communications equipment and normally serve as the flagship of both the CATF and CLF. LCCs have adequate medical facilities to care for embarked personnel but their limitations preclude use as CRTSs.

LCC MEDICAL FACILITIES

OR (minor surgery)..... 1
ICU Beds 0
Ward Beds 20
Overflow Beds 0
Quiet / Isolation Beds 4
Ancillary
Lab and X-ray.....yes

LCC MEDICAL MANNING

Medical Corps 1
Dental Corps 0
Nurse Corps 0
Anesthesia Provider 0
Medical Service Corps 0
Hospital Corpsmen 12
Dental Technicians 0

CVN and CV (Aircraft Carriers)

The aircraft carrier's primary mission is to provide a forward-deployed offense. It accomplishes this by supporting a composite airwing of some 70-plus multimission-capable aircraft. Combat capabilities include surveillance, antisubmarine warfare, antisurface ship warfare, air-to-air combat, strike warfare, and electronic countermeasures warfare. Supportive missions, including medical support of the crew members aboard, are facilitated by a self-sufficient carrier hospital, which is a 65-bed, level "2-plus" facility with the following attributes:

- three dedicated ICU beds with coinciding equipment
- one operating room
- X-ray capability (less ultrasound, CAT scan, and most dye imaging)
- pharmaceutical service
- orthopedic cast room
- physical exam service, including refractions/audio tests
- spectacle fabricating facility
- full-service lab (may have HIV screening);
- preventive medicine support
- dental support, including oral surgery and prosthetics

Carrier manning includes:

- a flight surgeon serving as the senior medical officer
- a general surgeon
- a nurse anesthetist / anesthesiologist
- a general medical officer and usually two flight surgeons attached to the Airwing
- a physician's assistant
- a health care administrator
- a nurse
- 40 to 45 hospital corpsmen (including those assigned to the Wing) with a variety of NECs.

The carrier's medical department also serves as a consultative and primary MEDEVAC facility for the other vessels within the battle group, which could consist of another six ships and some 2,000 crewmembers.

T-AH (Hospital Ships)

T-AHs are afloat surgical hospitals designed for extensive Echelon III HSS of combat operations at sea and ashore. Functioning under the provisions set forth in the Geneva Convention, they have capabilities equivalent to a CONUS general hospital.

The primary mission of the T-AHs, as prescribed in the ROC and POE, is to provide mobile, flexible, rapidly responsive afloat medical capability, along with acute medical and surgical care in support of ATFs, Marine Corps, Army and Air Force elements, forward-deployed elements of the fleet, and fleet activities in areas where hostilities may be imminent. In support of the primary mission, the T-AH will:

1. Receive patients who are suffering from wounds and DNBI primarily by helicopter, but also by boat, while anchored or underway.
2. Provide surgical and other HSS to patients until they can be returned to duty or evacuated to other acute care facilities or to CONUS for further treatment.
3. Provide a safe, stable, mobile platform, out of imminent danger, for carrying out the assigned mission.

4. Provide all the necessary personnel services and facilities required for support of the medical command.
5. Operate the full medical facility while at sea.
6. Provide 12 operating rooms, 1,000 beds, and associated medical support while in its highest readiness condition (Condition I: Battle Readiness). This includes 80 beds for intensive care, 20 beds for recovery, 400 beds for intermediate care, and 500 beds for minimal care.
7. Carry out extended operations off a hostile beachhead and provide an aviation facility with minimal helicopter support capabilities, for both day and night operations. Helicopter operations will be conducted for both delivery and evacuation of patients to other facilities.
8. Deploy within 5 days from receipt of mobilization orders.
9. Refuel at sea from other ships.
10. Receive and deliver dry cargo (supplies, provisions) by VERTREP, CONREP, or small boat.
11. Remain in a continuous condition of Readiness III (Wartime and Deployed Cruising). Operational systems are manned and operating to conform with prescribed ROCs, while also accomplishing normal underway maintenance, support, and administrative functions.

The T-AHs secondary mission is to provide a full hospital service asset available for use by other Government agencies involved in support of disaster relief operations and humanitarian assistance missions worldwide. Additional information on T-AH platforms may be found in the "T-AH 19 Class Hospital Ship General Information Manual" and in NWP 4-02.4, Part B.

CATF SURGEON TASKS

NWP4-02, Appendix E

DUTIES AND RESPONSIBILITIES

The amphibious task force is a task organization formed to conduct an amphibious operation. It always includes Navy forces and a landing force, with their organic aviation. The specific duties and responsibilities of the CATF Surgeon are:

1. Advise the CATF and staff, amphibious task force units, and the numbered fleet surgeon on HSS matters.
2. Optimize HSS readiness of all amphibious task force units.
3. Coordinate with the CLF Surgeon in preparing medical sections of OPLANs and OPORDs.
4. Ensure that HSS personnel of the LF augment the amphibious task force medical and dental departments of their assigned units.
5. Ensure appropriate HSS to all embarked personnel, using the amphibious task force medical and dental departments and medical supplies, reserving the LF HSS supplies for ultimate use ashore.
6. Monitor and coordinate amphibious task force quality assurance, risk management, and credentials and privileging issues.
7. Ensure optimal use of all embarked HSS personnel and materiel throughout the amphibious task force.
8. Implement and manage amphibious task force medical regulating.
9. Implement preventive medicine measures throughout the amphibious task force.
10. Submit post-deployment lessons learned reports via the appropriate chain of command.

11. Establish and maintain medical liaison with US and foreign medical facilities ashore. (This effort needs to be coordinated with the State Department or Office of Military Cooperation).
12. Advise the CATF in designating CRTSs and request required HSS augmentation.
13. Implement, coordinate, and oversee medical exercises, training, and education, throughout the amphibious task force (to include afloat CME and CEU documentation, and Personnel Qualification Standard training).
14. In coordination with the CLF Surgeon and other staff officers, plan for transporting casualties (including mass casualties) to the CRTS.
15. Request and disseminate medical intelligence.
16. Maintain liaison with other CATF staff officers on all issues and actions related to the health care of the amphibious task force.
17. Plan and provide for medical support of noncombatant evacuation operations as directed.
18. Coordinate communications support as required to complete the HSS mission.
19. Manage the blood program.
20. Provide projected HSS supply and resupply needs to cognizant supply system planners.
21. Represent the amphibious task force in all matters pertaining to required HSS for an operational mission.
22. Advise as to the status and capabilities of HSS elements supporting the mission.

COMMANDER, LANDING FORCE, (CLF) SURGEON TASKS

NWP4-02, Appendix F

DUTIES AND RESPONSIBILITIES

The LF includes troop units, aviation and ground, assigned to an amphibious assault. The specific duties and responsibilities of the CLF Surgeon are:

1. Ensure HSS provision for the LF before embarkation.
2. Assist the ship's medical and dental departments in providing HSS for embarked LF personnel.
3. Support the evacuation of casualties from the LF area to beach evacuation facilities during and after the assault phase.
4. Provide HSS for personnel ashore in the objective area.
5. Make recommendations to the CATF concerning the evacuation policy for the operation.
6. Identify and request external HSS to fulfill requirements beyond the capability of LF HSS elements.
7. Determine requirements for HSS supply and resupply for LF HSS units.
8. Establish emergency surgical treatment facilities ashore.
9. After control passes to the CLF, ensure continuity and interoperability of the TF Medical Regulating Net to coordinate the movement of casualties to appropriate treatment facilities ashore or afloat.

COMMUNICATION

LCDR Dennis Moses, MSC, USN, Ret.
LT Youssef H. Aboul-Enein, MSC, USNR

Establish good relations with the N6s (PHIBRON Comm Officer), the Ship's Comm Officer, and the S6 (MEU) Comm Officer. These key people will assist in setting up the MedReg Net and help solve complex message drafting problems. In a pinch, they will find creative solutions to help Medical get in touch with the outside world.

Radio nets are either controlled or open. Stations must get permission from the net control station (NCS) before communicating with other stations on the net. Transmissions on a controlled net may take place according to predetermined schedules. Permission is not required for flash messages, which are sent directly. An open net is referred to as a free net. The NCS authorizes member stations to transmit traffic to other stations on the net without obtaining prior permission. Free net operation requires the control station to maintain circuit discipline.

A net is not private. Everyone from the Commodore to the sailor or marine on watch is listening. When conducting consultation or patient transfers on the radio, KEEP PATIENT PRIVACY IN MIND.

Nets used for normal deployment on a day to day basis:

SATHICOM: The SATellite HIgh-level COMmunication circuit is used to pass essential information to and from an echelon commander (e.g. CINCPACFLT, CINCLANTFLT, and NMCC). The net has direct interface with the servicing naval computer telecommunications area master station (NCTAMS). SATHICOM is also used for troubleshooting circuits and can interface with units worldwide. SATHICOM is guarded by all underway units and shore stations and is one of the most essential and reliable of voice circuits.

NAVY RED: a UHF net, using line-of-sight voice, used for short range (within 60 miles) communication. Navy Red is a high-priority circuit for ships traveling in close range to pass

specific information such as operational maneuvers, exercises, and emergencies. All ships must guard this circuit while underway. This is the most frequently used net while deployed. Most of the medical emergencies from other ships will be heard on this net.

ARG Command Net: a satellite voice circuit for long-range communications for ships traveling within a specific group (ARG). Only ships in the ARG assigned satellite access will maintain a guard for this circuit. The ARG command net is similar to SATHICOM, although guarded by fewer units. This circuit allows ships in the ARG to separate and still maintain reliable communications.

ARG Cellular: for close line of sight communications. Voice communication via the ship's phone system.

Nets used for wartime or contingency purposes:

Medical Regulating Net Afloat (HF): MED-REG-NET provides communication between the amphibious task force medical regulating control officer (ATFMRCO) in the medical regulating center (MRC) and the medical regulating teams (MRT) afloat and ashore regarding current information on the capabilities of the different medical facilities. Priorities of patient evacuation and patient tracking occur in this net. The quality of the Med Reg Net has been a difficult recurrent issue for the ARG medical department. This net does not just happen. Close attention by the CATF Surgeon and negotiation with the TF and Ship's CommOs are necessary.

Marine Air-Ground Task Force (MAGTF) Alert / Broadcast Net (HF): for alert warnings or general traffic pertaining to all units assigned to the net. It is also used for passing Nuclear-Biological-Chemical (NBC) warnings.

Color Beach Administrative Net (HF): The CBAN is for passing administrative information, requesting supplies and equipment, coordinating supply and equipment deliveries to specific beaches, and evacuating casualties from landing beaches. This net is monitored in the flagship's landing force operation center (LFOC).

Tactical Air Request - Helicopter Request [TAR-HRI, (HF, VHF): for forward ground combat units to request immediate air support from the tactical air control center (TACC) or the direct air support center (DASC). Intermediate ground combat echelons monitor this net and may modify, disapprove, or approve a specific request. The TACC / DASC uses this net to brief the requesting unit on the details of the mission and may pass along target damage assessments and emergency helicopter requests. In the initial stages of an amphibious operation or any Marine Expeditionary Force (Special Operations Capable) [MEU(SOC)] operation, this may be the only net the unit can use. This net is monitored in the LFOC on the flagship.

Helicopter Direction Net [HDI, (UHF, VHF, HF): used by the Helicopter Direction Center (HDC) for positive control of inbound helicopters in the amphibious objective area (AOA). The radar controller in the HDC uses this net to direct flight course and altitude of helicopters, holdings, let downs and climb outs, when required. This is where inbound casualty details can be found; it is monitored in the flagship HDC.

Miscellaneous: Increasingly sophisticated computer networks [Medical Department local area network (LAN), Ship's LAN, wide area networks (WANs), World Wide Web, NIPRNET, SIPRNET]. Discuss access availability to the SIPRNET (for Navy Message traffic, etc.) with the N2.

Also, be aware of the following:

- a. Saltgrams: In a pinch, the Supply Officer (SuppO) can assist with a SALTGRAM (a supply email network that transmits and receives on a regular schedule).
- b. OPREP-5 Feeder: Each ship's daily message, with a medical section covering the previous day's medical events. Check the accuracy of the medical information frequently.

CRISIS MANAGEMENT BASICS

WHAT HAS HAPPENED?

WHAT IS HAPPENING?

WHAT IS LIKELY TO HAPPEN NEXT?

WHAT IS THE WORST THAT COULD HAPPEN NEXT?

WHO IS IN CHARGE?

AND WHAT IS THE CHAIN OF COMMAND?

WHAT HAS BEEN DONE?

WHAT IS BEING DONE?

WHAT SHOULD BE DONE NEXT?

WHAT SHOULD NOT BE DONE?

WHO HAS BEEN INFORMED?

WHO SHOULD BE INFORMED?

WHO SHOULD NOT BE INFORMED?

INTERNAL

EXTERNAL

WHAT DO WE NEED?

WHO ARE THEY?

WHAT ARE THEY?

WHERE ARE THEY?

ECHELONS OF MEDICAL CARE

PLEASE NOTE - The "echelons of care" model is expected to be replaced by a "levels of care" model incorporating levels more reflective of the tasks to be performed. The new model is expected to include new, more descriptive terms (still to be determined). Current thoughts are:

1. First Provider – First Responder
2. Field Surgical Units – Forward Surgery
3. Flow-through hospitals – Theater Hospitals (mobile breakout hospitals & core hospitals)
4. En-route care
5. CONUS

NWP4-02, Section 1.5

There are five echelons of medical care. Echelons I and II are provided by the operating forces as part of their table of organization and manning documents. Echelons III and IV are provided from service component resources in support of casualties generated by combat. Echelon V is CONUS.

Evacuation to Echelons I, II, and III is the responsibility of the component commander. Evacuation from Echelon III to Echelon IV is the responsibility of the unified command. Evacuation from Echelon IV to Echelon V is coordinated through the GPMRC. Patients are evacuated to the echelon that will provide the level of care required to expedite their return to duty.

A patient who will not return to duty within the stated theater evacuation policy will be evacuated through the echelons to the most appropriate MTF. Tactical evacuation is a responsibility of the theater commander. Strategic evacuation is a responsibility of USTRANSCOM.

The concept of care at each echelon of the HSS system is constricted by the following four interacting factors:

1. Urgency of the patient's needs.
2. Requirements for mobility of medical personnel and facilities.
3. Capabilities, equipment, and supplies of HSS personnel.

4. The workload at each echelon of care, relative to its treatment capacity.

Casualties are evacuated through the HSS system until they reach a facility capable of beginning decisive intervention, with sufficient time to perform necessary procedures and the bed capacity to retain the patient. This MTF or echelon of care is defined as the site of principal treatment.

ECHELON I: FIRST AID / EMERGENCY MEDICAL CARE

Echelon I will provide basic first aid (self or buddy). Self-aid and buddy aid training are required for all Navy and Marine Corps personnel. Emergency medical care is provided by HSS personnel: e.g., a hospital corpsman trained in emergency medical techniques, an IDC, or a medical department officer.

In the fleet, trained hospital corpsmen staff medical departments on small ships and provide emergency care independent of a medical officer. On ships with medical officers, more advanced resuscitative care is possible. In the FMF, hospital corpsmen represent the portal of entry where sick, injured, or wounded Marines receive medical care. The corpsman provides examination and evaluation followed by emergency or lifesaving measures such as maintaining airway, controlling bleeding, and preventing / controlling shock and other injury. The medical officer treats at the BAS, providing initial resuscitation and routine health care

ECHELON II: INITIAL RESUSCITATIVE CARE

Echelon II provides initial resuscitative care in the form of surgical and medical resuscitation. This care saves life and/or limb and stabilizes patients for evacuation to Echelon III. Blood and blood products are available at Echelon II. General surgeons and anesthesiologists or nurse anesthetists man the facilities. Other specialties may be represented. The ancillary support provided, particularly lab and radiology, is minimal.

This level of care is available on the aircraft carriers in the carrier battle groups and by the CRTS of an amphibious battle groups. In the FMF, the Medical Battalion consisting of three Surgical Companies and eight STPs provide Echelon II care.

This phase of treatment provides emergency surgical procedures for resuscitation, without which death or serious loss of limb / body function is likely to occur. Surface or air evacuation arrangements for patients requiring more comprehensive treatment are directed toward the higher echelon facility that can provide the required treatment.

ECHELON III: RESUSCITATIVE CARE

Echelon III provides a higher level of surgical and medical resuscitative capability. In addition to general surgeons and orthopedists, other surgical specialists will be present. The HSS provided by these facilities - for example, the T-AH and CBTZ fleet hospital - will have greater capabilities, particularly in laboratory and radiology support. The scope of treatment requires clinical capabilities normally found only in a hospital properly staffed, equipped, and located in an environment with a low level of threat from enemy action. This level of care constitutes the definitive treatment that is needed to return many patients to full duty.

ECHELON IV: DEFINITIVE CARE

In addition to the surgical capability provided in Echelon III, Echelon IV provides further definitive therapy for recovering patients who may then return to duty within the theater evacuation policy. A COMMZ fleet hospital or an OCONUS MTF normally provides definitive care. This level of care is adapted to the precise condition of the patient; it is normally provided by a fully staffed hospital delivering the care necessary to complete the patient's recovery.

ECHELON V: CONVALESCENT, RESTORATIVE, AND REHABILITATIVE CARE

Usually CONUS, this care is necessary for the patient's long-term return to health, not necessarily to duty.

FLEET SURGICAL TEAMS

CDR Ken Schor, MC, USN

A Fleet Surgical Team (FST) is a distinct, freestanding, non-Claimancy-18 unit attached to operating forces of the Atlantic and Pacific Fleets. It has its own UIC, a permanent OIC-coded billet, a TYCOM-managed OPTAR and TADTAR budget, and 16 permanently assigned members. The ADCON ISIC is COMPHIBGRU TWO or THREE. The OPCON ISIC is typically COMPHIBRON, the ATF Commodore.

Billet Structure

	Title	Rank	NOBC / NEC
Officers (7)	OIC	05 / 6	21XX
	FP / IM / ER / PED	N/A	21XX
	General Surgeon	N/A	21XX
	Anesthesia	N/A	21XX or 29XX
	Charge / CCRN	N/A	29XX
	Perioperative RN	N/A	29XX
	MRCO / MAO	N/A	23XX
Enlisted (9)	LPO	E6	0000/8404
	General Duty (4)	N/A	0000/8404
	O.R. Tech (2)	N/A	8483
	Adv Lab Tech	N/A	8506
	Respiratory Tech	N/A	8541

Members attached to FSTs

Embarked/Afloat: CRTS

Ashore: ADDU to regional MTFs / Admin cell at PHIBGRU

Chain of Command

<u>Ashore/Administrative</u>	<u>Embarked/Operational</u>
FST	FST
PHIBGRU	PHIBRON / TASK FORCE
CNSL/P	NUMBERED FLEET (C2F/C6F)
CLF/CPF	CINCUSNAVEUR (PAC)
CNO	REGIONAL
CINC(CINCEUR/PAC)	
NCA VIA CJCS	NCA VIA CJCS

Equipment / Supplies: Organic to FST: Minimal to nil, must seek smallest logistical footprint - e.g. computers, files, limited training aids, reference materials

Platform (CRTS): Ship's CO owns all the equipment. Ship's Medical Department Head is the "landlord". FST "rents" the space, equipment, and consumables.

AMMALS (three flavors):

- Platform class specific (LHD v. LHA v. LPH)
- Contingency resupply (currently aboard CRTS)
- Cross-decked Ortho blocks (switched at outchop)

Some of the basic differences between an MMART and an FST (refer to BUMEDINST 6440.6) include:

<u>MMART</u>	<u>FST</u>
Task organized/customized	Fixed billets, plus augments
Deploy to ships and land	Limited to ship (usually a CRTS)
Can split configure	
Detachment OIC	Maintain unit integrity
Parent MTF "leash"	Standing OIC
Admin often inexperienced	No leash
	Experienced admin cell

Other FST issues:

<u>Capabilities</u>	<u>Constraints</u>
Unit integrity/identity/team	Fixed billet structure
Integrated OR, ICU, Ward	Blue-Green relationship may be rough
Medically support OMFTS	
Connections	Sustainment limits
High readiness	Split-ARG operations (medical support)
Focused clinical & operational training	No CPO billet
Integrate with & augment CRTS	

SELECTED KEY REFERENCES (Useful to the FST)

General Information

1. BUPERS CD-ROM (includes Uniform Manual)
2. FITREP / Eval Instruction: BUPERSINST 1610.10 dtd 6 AUG 95 and the software

3. Awards Manual: SECNAVINST 6150.1F
4. Consolidated Subject Index, OPNAVNOTICE 5215 (Updated semiannually)
5. AMMAL / ADAL LISTS: Naval Surface Force Authorized Minimal Medical Allowance List (Updated Annually in December)
6. Commanders Handbook (for legal-type questions)
7. Naval Warfare Publication (NWP) 4-02, "Operational Health Service Support"
8. NWP 4-02.2, "Part A: Naval Expeditionary Forces Medical Regulating"

FST Instructions

9. CINCLANTFLTINST 5450.5A, dtd 19 NOV 92, "Fleet Surgical Teams"
10. COMPHIBGRUTWOINST 6440.1B, dtd 25 MAY 95, "Fleet Surgical Teams, Mobile Medical Augmentation Readiness Teams, and Medical Augmentation Program"
11. CINCLANTFLTINST/CINCPACFLTINST 5450.5B. dtd 15 FEB 00

OIC REFERENCE BOOK

Creating an "OIC REFERENCE BOOK" may be convenient, and can be organized according to the N-code system with a few customized sections.

N1: ADMIN

- "Change of Charge" letter for OIC
- Exceptional Family Member Program info
- Excerpt from CNSL 6000.1 series "Shipboard Medical Guide" for CATF Surgeons
- SORM of the US Navy
- Info on enlisted frocking
- NAVADMIN dtg 161949Z JUL 93 "Frocking Personnel to Paygrade E-4"
- BUPERSINST 1430.16D, para 805 ff.
- Regulations covering Emergency Leave: NAVMILPERSMAN 3020280 (off CD-ROM)
- Rules covering Special Liberty: NAVADMIN dtg 031627Z NOV 95 "Special Liberty"

- Information and Instructions on Awards, e.g., COMPHIGRU TWO dtg 301645Z JAN 96 "Single Page Certificate / Citation for Navy & Marine Corps Commendation & Achievement Medals"
- Selected references on management of pregnant service members: E.g., NAVADMIN dtg 151726Z APR 94 "Management of Pregnant Servicewomen"; NAVADMIN 044/95 dtg 012323Z MAR 95 "DoN Policy on Pregnancy"
- OPNAVINST 1412.8 series "Surface Warfare Medical Department Officer Qualification and Designation"
- NAVADMIN 242/95 dtg 061808Z OCT 95 "Accrued Leave in Excess of 60 Days"

N2: INTEL

N3: OPS

COMPHIBGRUTWOINST 3500.4B dtd 22 May 95 "Amphibious Ready Group (ARG) / Special Operations Capable (SOC) Evaluations"

N4: LOGISTICS

COMPHIBGRU TWO ltr Ser 00/0780 dtd 13 Jun 95 "Mobile Medical Augmentation Readiness Team (MMART) Supply Blocks Program"

N5: TACRON

How to read an OPTASK Air Schedule in COMPHIBRON TWO msg dtg 161755Z OCT 95 "GUAM ARG OPTASK Air Helo Supplement 001 (U)"

N6: COMMUNICATIONS

ALCOM 026/96 dtg 220920Z APR 96 "CMS for COs & OICs" How to format a Medical Joining Report in "Task Force Medical Regulation Guide", NAVMED P-5133, Appendix D.

N7: NAVAL SPECIAL WARFARE

N8: COMBAT CARGO

N9: CATF SURGEON

- Latest guidance & policy on immunizations. (NEPMUs, CINC's)

- CNSL/P's (or designated command's) requirements or guidance on thrombolytic therapy, IV conscious sedation, patient restraint issues.
- CNSL/P instruction on "Shipboard Operating Room (OR) Certification"
- CNSL/P instruction on "Health Care Quality Improvement (QI) Program"
- BUMED July 95 "CRTS Medical Capabilities Study Results" (copy of briefing slides) and Naval Expeditionary Force Working Group Subcommittee 20 Oct 94 "CRTS Medical Capabilities Study Results" (copy of briefing slides), for additional info on OR certification
- CNSL/P INST 6000.1series
- Copy of prior Post-Deployment Report from other FSTs
- Combat Medical Branch Doctrine Division MCCDC "Health Service Support from the Sea" to provide info on evolving USMC medical support doctrine.

OPTASK MEDICAL REFERENCE NOTEBOOK

Another custom binder, often-titled "MARG X-XX OPTASK MEDICAL" is helpful on deployment. It should contain all the pertinent references for Fleet medical operations, including "Welcome to the XXX Ocean" messages, along with complete copies of all cited references noted in these messages. Consider adding a telephone book organized along the lines of the operational and administrative chains of command. Also add Alpha rosters on the FST members and PHIBRON.

References

- a) CINCLANTFLTINST 5450.5A dtd 19 NOV 92, "Fleet Surgical Teams"
- b) COMPHIBGRUTWOINST 6440.1B dtd 25 MAY 95, "Fleet Surgical Teams, Mobile Medical Augmentation Readiness Teams, and Medical Augmentation Program"
- c) Personal Conversation, LT Hatley, CNSL Medical Administrative Officer, 7 AUG 96
- d) Personal Conversation, Mr. Anderson, OPNAV 931, 11 SEP 96
- e) BUMEDINST 6440.6 dtd 11 MAY 93, "Mobile Medical Augmentation Team (MMART) Manual"

GLOSSARY

(NWP4-02, edited subset)

A

Aeromedical Evacuation Liaison Team (AELT). A USTRANSCOM unit that coordinates aircraft availability with the AECC and the movement of the casualties with the MRCC to effect evacuation out of the AOA.

Aeromedical evacuation system. A system that provides control of patient movement by air transport; specialized medical attendants and equipment for in-flight medical care; facilities on or in the vicinity of air strips and air bases for the limited medical care of in-transit patients entering, en route, via, or leaving the system; and communication with originating, destination, and en route medical facilities concerning patient transportation (Joint Pub 1-02).

Airlift Control Center (ALCC). An ops center for detailed planning, coordinating, and tasking for tactical airlift operations; the focal point for communications and source of control and direction for tactical airlift forces (Joint Pub 1-02). Also the agency contacted by the AECC to arrange airframe and times of casualty lifts.

American Association of Blood Banks (AABB). A civilian blood banking association that establishes policies and standards for US blood banks. The AABB publishes "Standards for Blood Banks" and "Transfusion Services and Technical Manual;" both have been adopted for peacetime use by the military services as official publications.

Amphibious Operation Area (AOA). A geographic area, delineated in the initiating directive, for purposes of command and control containing the objective(s) to be secured by the ATF. This area must be large enough to conduct necessary sea, air, and land ops (Joint Pub 1-02).

Amphibious Task Force (ATF). The task organization formed to conduct an amphibious operation. The ATF always includes Navy forces and a landing force, with their organic aviation, and may include Military Sealift Command (MSC) ships and Air Force forces (NWP 1-02).

Area of Operation (AO). That portion of an area of war necessary for military operation (Joint Pub 1-02).

Armed Services Blood Bank Center (ASBBC). An armed service staffed blood bank with a Service as executive agent, responsible for collecting, processing, & storing blood products. The ASBBC provides blood products for medical treatment elements of two or more of the armed services.

Armed Services Blood Program (ASBP). The combined military blood programs of the individual services and unified and specified commands in an integrated blood product support system for peace, contingency, and war.

Armed Services Blood Program Office (ASBPO). Coordinates operation of Armed Services Blood Program. Executive agent is the Army. Offices located with the Army Surgeon General. Tri-service, consisting of Director and two Deputy Directors (Ops and Modernization). Director's position rotates between services. (OPNAVINST 6530.4A)

Armed Services Whole Blood Processing Laboratory (ASWBPL). An armed service staffed organization, with the Air Force as executive agent, responsible for central receipt and reprocessing of blood products from CONUS blood banks, and shipment of those products to designated unified command BTCs or TBTCs.

Authorized Minimal Medical (or Dental) Allowance List (AMMAL and ADAL). Compendium of supplies & equipment, developed / designed to provide necessary items presterilized & packaged, to permit medical and dental personnel to perform certain activities and procedures for defined missions or specific casualty estimates.

B

Battle casualty. Any casualty incurred in action. "In action" means the direct result of hostile action, sustained in combat, or relating thereto, or sustained going to or returning from a combat mission, provided that the occurrence was directly related to hostile action. Included are persons killed or wounded mistakenly or accidentally by friendly fire directed at a hostile force. However, not included are those injured because of the elements, self-inflicted wounds, and, except in

unusual cases, wounds or death inflicted by a friendly force while the individual is AWOL, dropped from rolls, or voluntarily absent from a place of duty. See also "died of wounds received in action," "nonbattle casualty," and "wounded" (Joint Pub 1-02; NAVMEDCOMINST 6320.1).

Bed capacity. The number of beds a hospital can accommodate, referring only to space (excluding equipment and staff). Former ward or room space that has been altered and cannot readily be reconverted is not included. Space for beds used only for examinations or brief treatment periods, such as in exam rooms or physical therapy, is not included. Nursery space is accounted separately based on the number of bassinets the nursery can accommodate.

1. **normal bed capacity.** The number of beds that can be used in an area, with approximately 100 to 200 square feet of space per bed. For cantonment-type hospitals still in use, bed capacity may be measured in the number of beds spaced on 8-foot centers.
2. **expanded bed capacity.** The number of beds that can be used in wards or rooms designed for patients' beds, spaced on 6-foot centers (about 72 square feet/bed).
3. **mobilization and contingency bed capacity.** The expanded bed capacity plus the beds that can be set up in areas not originally designed for patient care, such as troop billets, hotels, motels, and schools, and in former patient care areas that can be reconverted within the time of the hospital's mobilization and contingency mission.
4. **licensed beds.** The number of beds that a hospital is licensed, certified, or otherwise authorized and has the ability to operate; space, equipment, medical materiel, and ancillary and support services have been provided, but the required staff is not necessarily available. Licensed beds equal staffed beds plus set-up beds. Since licensed beds include equipment, they need not equal normal bed capacity but cannot exceed it.
5. **staffed bed.** Accommodation in a functioning medical treatment facility currently set up and ready for the care of a patient in all respects. Analogous to operating beds, including normal support space, equipment, medical materiel, ancillary / support services, and staff.

6. **set-up bed.** A bed ready in all respects except staffing for patient care; that is, space, equipment, medical materiel, and ancillary and support services have been provided, but the bed is not staffed to operate under normal circumstances. (NAVMEDCOMINST 6321.1)

Blood Donor Center (BDC). Component staffed; tasked to collect and process blood products. May be co-located with BB; may serve as BSU in a unified command.

Blood products (BP). A generic name for blood and blood components; e.g. red blood cells (liquid and/or frozen), fresh frozen plasma, and frozen platelets.

Blood Product Depot (BPD). Component staffed; tasked with unified command's strategic storage of frozen blood products. Frozen blood products are provided to each unified command component based on JBPO instructions.

Blood product-planning factors. Factors used in computing mobilization requirements for blood products (i.e., red blood cells, fresh frozen plasma, and platelets).

Blood Supply Unit (BSU). A component-staffed unit tasked to receive / store blood products (liquid / frozen) from BTCs, TBTCs, or BPD, and to issue those products to medical treatment elements in an assigned area per AJBPO.

Blood transfusion service / blood bank (BB). Component staffed to receive blood products from a BSU or BDC and process / prepare them for transfusion into patients in MTFs.

C

Casualty. Any person lost to the organization by having been declared dead, wounded, injured, diseased, interned, captured, retained, missing, missing in action, beleaguered, besieged, or detained. See also "battle casualty," "nonbattle casualty," and "wounded" (Joint Pub 1-02).

Casualty Receiving and Treatment Ship (CRTS). Any task force ship with the required operational capability and resources designated by the task force commander to provide medical treatment and evacuation of casualties.

Combat area. A restricted area (air, land, or sea) established to prevent or minimize mutual interference between friendly forces engaged in combat operations. (Joint Pub 1-02)

Combat Service Support (CSS). The assistance provided to operating forces primarily in the fields of administrative services, chaplain services, civil affairs, finance, legal service, health services, military police, supply, maintenance, transportation, construction, troop construction, acquisition and disposal of real property, facilities engineering functions, food service, graves registration, laundry, dry cleaning, bath, property disposal, and other logistics services.

Combat Service Support Area (CSSA). A designated area from which combat service support elements provide logistic support to the ground combat element (FMFRP 0-14).

Combat zone (CBTZ). Area required by combat forces to conduct operations, plus territory forward of the Army rear area boundary. See "communications zone" (Joint Pub 1-02).

Communications zone (COMMZ). The rear of the theater of operations (behind but contiguous to the combat zone) that contains the lines of communication, establishments for supply and evacuation, and other agencies required for the immediate support and maintenance of the field forces. See also "combat zone" and "rear area" (Joint Pub 1-02).

Course of action (COA). Any sequence of activities that an individual or unit may follow. A possible plan open to an individual or commander that would accomplish, or is related to the accomplishment of, his mission. The scheme adopted to accomplish a job or mission (FMFRP 0-14).

D

Defense Blood Standard System (DBSS). A computer system designed to assist armed services blood program activities worldwide, providing automated capabilities for contingency and wartime operations as well as daily peacetime operations and regulatory requirements.

Defense Health Program. Prior to October 1991, all resources supporting the missions of Navy Medicine were held in the appropriations of the US Navy. In 10/91, the Deputy Secretary of Defense gave the ASD (HA) enhanced authority over DOD's medical missions, creating the Defense Health Program (DHP) Appropriation and transferring all "peacetime" health-care O&M funds from the services to the DHP for initial

funding. Since 12/91, the ASD (HA) has responsibility for programming and budgeting resources to support the daily operations of the MTFs delivering the health benefit mission.

Definitive care. The definitive phase of treatment provides a level of care adapted to the precise condition of a patient. Definitive care is normally provided by a fully staffed hospital, and embraces those endeavors necessary to complete the patient's recovery. Treatment constitutes all that is needed to return the patient to full and useful duty (FMFM 4-50).

Disease and nonbattle injury (DNBI). A person who is not a battle casualty but who is lost to the organization by reason of disease or injury. See also "nonbattle casualty."

Disaster relief. Disaster relief operations are carried out in the US and may include refugee assistance, food programs, HSS & supplies, medical evacuation, recovery of victims & forensic identification, damage control, security, & restoration of vital utilities. Properly orchestrated, US military participation in disaster relief can have significant positive effects.

The Stafford Act, 42 USC 5121, et seq, as amended, is the statutory authority for federal domestic disaster assistance. It empowers the President to establish a program for disaster preparedness and response, which the President has delegated to FEMA. The Stafford Act provides procedures for declaring an emergency or major disaster, as well as the type and amount of federal assistance available. The Act authorizes the President to provide DOD assets for relief once he formally declares an emergency or a major disaster. He may also provide DOD assets for emergency work on a limited basis prior to the declaration. DOD policy for providing domestic disaster assistance is contained in DOD Directive 3025.1, "Military Support to Civil Authorities" (FM 100-19).

E

Echelon. A subdivision of a headquarters; i.e., forward echelon, rear echelon. A separate level of command. As compared to a regiment, a division is a higher echelon and a battalion is a lower echelon. A fraction of a command in the direction of depth, to which a principal combat mission is

assigned; i.e., attack, support, or reserve echelon. A formation with subdivisions placed one behind another, with lateral and even spacing to the same side (Joint Pub 1-02).

Echelons of care. The U.S. Navy's Health Care Delivery System is designed to sustain the fleet and Fleet Marine Force in combat operations. The system consists of a single, integrated, worldwide network of MTFs. Medical support in the naval services exists in four geographic areas (CBTZ, COMMZ, Theater, and CONUS). Within these areas, HSS is provided in five **echelons**. Wartime casualties are evacuated through the HSS system until arriving at a facility capable of decisive intervention and which has both the time to perform the necessary procedures and the bed capacity to retain the patient, which becomes the site of principal treatment. The medical capability of each echelon is task-organized for the tactical requirements of the supported units to provide progressive and time-phased treatment, hospitalization, and evacuation of sick, injured, and wounded personnel. Each separate echelon can provide the same levels of treatment as the echelons it supports, plus a greater level of capability that differentiates it from the next forward echelon (FMFM 4-50).

Evacuation. The process of moving any person wounded, injured, or ill to and/or between MTFs (Joint Pub 1-02).

Evacuation policy. Command decision on the maximum number of days of noneffectiveness that patients may be held for treatment. Patients who, in the opinion of responsible medical officers, cannot return to duty within this period are evacuated by the first available means, provided travel will not aggravate their disabilities (Joint Pub 1-02).

F

Fixed Medical Treatment Facility. An MTF that is designated to operate during an extended period of time at a specific site (Joint Pub 1-02).

Force Service Support Group (FSSG). A permanently organized command charged with providing all major combat service support for a MEF in a deployed or garrison environment. If supporting a force of greater size, it requires augmentation. Permanently structured with eight functional

battalions; task organizations from those battalions would normally support MEF operations over a wide area.

G

Global Patient Movement Requirements Center (GPMRC).

A USTRANSCOM agency responsible for coordinating aeromedical evacuation worldwide.

H

Health Service Support (HSS):

1. An element in combat whose mission is providing medical / dental care to maintain, preserve, and restore the combat power of the force. Inherently, this requires returning personnel to duty as expeditiously as possible and minimizing morbidity and mortality in those who cannot return to duty expeditiously (FMFM 4-50)).
2. Services performed, provided, or arranged by the services to promote, improve, conserve, or preserve the mental or physical well being of personnel. These services include, but are not limited to, the management of health services resources, such as manpower, monies, and facilities; preventive and creative health measures; evacuation of the sick, injured, and wounded; selection of the medically fit and disposition of the medically unfit; blood management; medical supply, equipment and maintenance thereof; combat stress control; and medical, dental, veterinary, laboratory, optometric, medical food, and medical intelligence services (Joint Pub 1-02).

Helicopter Direction Center (HDC). In amphibious operations, the primary direct control agency for the helicopter group/unit commander operating under the overall control of the tactical air control center (Joint Pub 1-02). The HDC is positioned afloat, within the Navy tactical air control system. It is not a Marine air command and control system agency but interacts closely with the direct air support center in controlling helicopter operations between ship and shore (FMFRP0-14).

Humanitarian assistance. Programs conducted to relieve or reduce the results of natural or manmade disasters or other endemic conditions such as human pain, disease, hunger, or privation presenting a serious threat to life or great damage or

loss of property. As provided by US forces, it is limited in scope and duration. It is designed to supplement or complement the efforts of the host nation civil authorities or agencies having the primary responsibility for providing humanitarian assistance (Joint Pub 1-02).

I

Initial resuscitative care. This is Echelon II level of care. A STP, SURG CO, or CRTS characterizes this level of care, with a medical team including staff, equipment, and supplies, along with whole blood and blood products. Initial resuscitative care is distinguished by the application of clinical judgment and skill by a team of physicians and nurses, supported by medical technicians. It includes surgical capability, basic lab, pharmacy and ward facilities. At this level, necessary examinations and observations can be done in a deliberate manner. The objective is to perform those emergency surgical procedures that constitute resuscitation, without which death or serious loss of limb or body function is likely to occur. For patients requiring more comprehensive treatment, evacuation to a facility that can provide the required treatment will be arranged.

Intelligence annex. A supporting document of an OPLAN or OPORD that will provide detailed information on the enemy situation, assignment of intelligence tasks, and intelligence administrative procedures (Joint Pub 1-02).

Intelligence cycle. The five steps by which information is converted into intelligence and made available to users.

1. *Planning and direction.* Determination of intelligence requirements, preparation of a collection plan, issuance of orders, and requests to information collection agencies, and a continuous check on the productivity of collection agencies.
2. *Collection.* Acquisition of information / provision of this information to processing and / or production elements.
3. *Processing.* Conversion of collected information into a form suitable to the production of intelligence.
4. *Production.* Conversion of information into intelligence through the integration, analysis, evaluation, and interpretation of all source data, and the preparation of

intelligence products in support of known or anticipated user requirements.

5. *Dissemination*. Conveyance of intelligence to users in a suitable form (Joint Pub 1-02).

Intelligence summary. A specific report summarizing items of intelligence at frequent intervals (Joint Pub 1-02).

L

Landing Force (LF). A task organization of troop units, air and ground, assigned to an amphibious assault. The highest troop echelon in the amphibious operation (Joint Pub 1-02).

M

Marine Air-Ground Task Force (MAGTF). A task organization of Marine forces (division, aircraft wing, and service support) under a single command and structured to accomplish a specific mission. The MAGTF components will normally include command, aviation combat, ground combat, and combat service support elements (including Navy support elements). The types of MAGTF that can be task-organized are the MEB and the MEF.

The four elements of a MAGTF are:

1. **Command Element (CE).** The MAGTF headquarters. A permanent organization composed of the commander, general, or executive and special staff sections, headquarters section, and requisite communication and service support facilities. It provides command, control, and coordination essential for effective planning and execution of operations by the other three elements of the MAGTF. There is only one CE in a MAGTF.
2. **Aviation Combat Element (ACE).** The MAGTF element task-organized to provide all or some of the functions of Marine Corps aviation based on the tactical situation and the MAGTF mission and size. These functions are air reconnaissance, anti-air warfare, assault support, offensive air support, electronic warfare, and control of aircraft and missiles. The ACE is organized around an aviation headquarters and varies in size from a reinforced helicopter squadron to one or more Marine aircraft wing(s). It includes those aviation command (including air control agencies), combat, combat support, and combat service support units required by the situation. Normally, there is only one ACE in a MAGTF.
3. **Ground Combat Element (GCE).** This MAGTF element is task-organized to conduct ground ops and is constructed around an infantry unit, varying in size from a reinforced infantry battalion to one or more reinforced Marine division(s). The GCE also includes appropriate combat support and combat service support units. Normally, there is only one GCE in a MAGTF.
4. **Combat Service Support Element (CSSE).** The MAGTF element task-organized to provide a full range of combat service support necessary to accomplish the MAGTF mission. CSSE can provide supply, maintenance, transportation, deliberate engineer, health, postal, disbursing, prisoner of war, automated information systems, exchange, utilities, legal, and graves registration services. Normally, there is only one CSSE in a MAGTF (Joint Pub 1-02).

Marine Expeditionary Force (MEF). The largest of the MAGTFs, built around a division / wing team but can include

several divisions and wings, with an appropriate combat service support organizations. The MEF can conduct a wide range of amphibious assault operations and sustained operations ashore. It can be tailored for a variety of combat missions in any geographic environment (Joint Pub 1-02).

Marine Expeditionary Force (Forward) [MEF (FWD)]. Elements of a MEF deployed to a theater of operations; either the forward echelon of a MEF or another MAGTF task-organized for the mission. It can be an air contingency force, a maritime or geographic prepositioning force, or the landing force of an amphibious operation (Joint Pub 1-02).

Maritime Prepositioning Force (MPF). A task organization of units under one commander formed to introduce a MEB with associated equipment / supplies into a secure area. The MPF comprises a command element, a maritime prepositioning ship squadron, a MEB, and a Navy support element. The MPF element has naval beach group staff and subordinate unit personnel, a detachment of Navy cargo handling force personnel, and other Navy components. It is tasked with conducting the off-load and ship-to-shore movement of MPF equipment / supplies (FMFRP0-14).

Mass casualty situation. In MCS, normal patient sorting procedures are modified; casualties are categorized based on their probability of survival and the urgency of needed treatment. A mass casualty situation can create massive disruption in the conduct of combat, combat support, and combat service support operations (FMFM 1-8/NWP 22-3).

Medical Regulating Control Center (MRCC). The MRCC is the coordination center for movement of casualties within and out of a naval task force. Normally located with the flagship, the MRCC is supervised by the MRCO.

Medical Regulating Net. The formal radio communications net for the medical regulating system. The MRCO must have a dedicated radio communications net, preferably secure voice. This is accomplished by the force communications officer, who ensures that communication requirements of the medical regulating system are addressed in all OPORDs / OPLANs. MEDREGNET primarily provides rapid

communication between the MRCO and units in the task force to ensure a constant flow of current capability information.

Medical Treatment Facility (MTF). Facility for providing medical / dental care to eligible patients (Joint Pub 1-02).

Military command. The authorized direction exercised over activities of the naval establishment in military matters, including the prerogative to exercise authoritative control over all matters when circumstances dictate. Primary reporting senior responsibility is inherent in command.

N

Nonbattle casualty. A person who is not a battle casualty but who is lost to the organization by reason of disease or injury; by reason of being missing where the absence does not appear to be voluntary, because of enemy action; or due to being interred. See also "disease and nonbattle injury," "battle casualty," and "wounded" (Joint Pub 1-02).

Nonfixed medical treatment facility. An MTF that can move from place to place, including medical facilities afloat (Joint Pub 1-02). Frequently called deployable medical facilities.

O

Operation plan (OPLAN). A plan for a single or series of connected operations to be carried out simultaneously or in succession. It is usually based upon stated assumptions and is in the form of a directive employed by higher authority to permit subordinate commanders to prepare supporting plans and orders. The designation "plan" is usually used instead of "order" in preparing for operations well in advance. An OPLAN may be put into effect at a prescribed time, or on signal, and then becomes the OPORD.

Operation order (OPORD). A directive issued by a commander to subordinate commanders for the purpose of effecting the coordinated execution of an operation.

P

Plans, Operations, and Medical Intelligence (POMI) Officer.

The POMI officer (designator: 230X; SSC 1805; NOBC 0031) analyzes, plans, and executes mobilization and peacetime plans for both Navy and Marine Corps HSS activities, and assigns staff at the joint, combined, and Service levels. The MSC officer enters as an ensign or lieutenant, with assignment opportunities through captain.

Preventive medicine. Services concerned with identifying, preventing, and controlling acute and chronic communicable and noncommunicable diseases with vector control and food and environmental hygiene (NAVMED P-5010).

Primary support. The responsibility for providing or assuring provision of resources (i.e., funds, manpower, facilities, and materials) to enable a shore activity to carry out its mission. Primary support includes administrative, personnel, and material support and guidance and assistance in such matters as organization, procedures, budgeting, accounting, staffing, and the use of personnel, funds, facilities, and material.

Projected operational environment (POE). The most demanding condition (wartime and peacetime) of operating for which a unit must be manned (OPNAVINST C3501.2H).

R

Rear area. For any particular command, the area extending forward from its rear boundary to the rear of the area of responsibility of the next lower level of command. This area is provided primarily for the performance of combat service support functions (Joint Pub 1-02).

Red blood cells (RBC). Cellular elements separated from whole blood by removal of plasma. If drawn in the anticoagulant CPDA-1, red blood cells must be transfused within 35 days of the date the blood is drawn. If frozen within 3 to 6 days of being drawn, they can be frozen and stored for up to 10 years under the FDA license, and up to 21 years for use in military contingencies. They also may be chemically rejuvenated, if not used within 35 days of collection, and then frozen and stored for up to 10 years.

Required Operational Capability (ROC):

1. A specific operational capability that a ship, aircraft squadron, or unit must be able to perform under a particular degree or condition of readiness in support of its assigned mission areas (OPNAVINST C3501.2H).
2. Operational functions a commander officially promulgates as those performed by command elements (NWP 1-02).

Resuscitative care. This scope of treatment requires clinical capabilities normally found only in a hospital properly staffed, equipped, and located in an environment with a low level of threat from enemy action. The principal treatment phase is adapted to the condition and specific needs of the patient (FMFM 4-50). The resuscitative care treatment phase is for patients whose conditions require comprehensive preoperative diagnostic procedures, intensive preparation for surgery, qualified surgical teams, possibly general anesthesia, properly equipped operating rooms, and adequate post-treatment capability to perform those emergency surgical procedures which, in themselves, constitute resuscitation and without which death or serious loss of limb or body function is inevitable. Performance of such procedures requires no less than the clinical capability described above; therefore, this phase of treatment is normally provided on board a CRTS, at a combat fleet hospital, or on board a T-AH.

S

Service Blood Program Office (SBPO). An armed service staffed office responsible for coordination and management of that service's blood program.

Ship Manning Document (SMD). A publication issued by CNO (DCNO) (Manpower, Personnel, and Training) that displays in detail quantitative and qualitative manpower requirements of an individual ship or class of ships and the rationale of determination of the requirements. Requirements are predicated upon a ROC statement under a POE, ship configuration, specified operating profile, computed workload, and established doctrinal constraints such as standard work weeks, leave policy, etc (OPNAVINST 1000.16 Series).

Stabilization time. Time required to treat a patient until transfer to another MTF without incurring additional morbidity.

T

Theater. The geographic area outside CONUS for which a commander of a unified or specified command has been assigned military responsibility.

Theater Patient Movement Requirements Center (TPMRC). The TPMRCs support the four geographic unified commanders by coordinating their aeromedical evac requirements. This includes integrating with the GPMRC.

Transportable Blood Transshipment Center (TBTC). A BTC, currently under development, that will be able to be transported when their location is anticipated to come under enemy attack. TBTCs will also be able to be deployed to bare base locations or into locations with minimal infrastructure.

U

United States Transportation Command (USTRANSCOM). A combatant command. While planning the execution phase during crisis action, it ensures transportation to support the approved course of action; publishes coordinating instructions; develops transportation schedules; focuses on first increment of movement; and coordinates changes due to conflicts and shortfalls. Reports deployment progress to the CINC and CJCS and lift shortfalls to CJCS (AFSC PUB 1).

LIBERTY & WORKING PORT VISIT MEDICAL PLANNING

LT Youssef H. About-Enein, MSC, USNR

To be effective, port visit medical planning requires early staff work and frequent verification with line and non-medical staff officers of the ship and ARG. Consider the following information. Much can be obtained prior to deployment.

- Medical intelligence on the port and locale from AFMIC and the regional EPMU.
- Message traffic from earlier US Navy ship visits. (This should be obtained by CATF Surgeon and MRCO prior to deployment.)
- Internet search for local information. (NIPRNET & SIPRNET)
- Plan in writing for snake bite, rabies prophylaxis. Double check availability of antivenin and RIG, HDCV.
- Written plan for transfusion requirements – is local blood safe? Avoid diplomatic embarrassment, but be safe.
- Plan a Medical Brief for the ARG with honest assessment of risk of STD, other infectious disease, and environmental risks (heat, UV, dog bite, etc) – Get this on Site TV. Don't be shy!
- Coordination with ARG N4, Ship's SuppO, Passenger Mail Cargo Officer (PMC):
 - Logistic flight supporting ARG (ASCOMEDs)
 - Transportation for medical (make sure medical has transportation assets dedicated, with a backup.)
 - Communication for medical (pagers, cell phones, etc, for key personnel - order early through N4)
- Plan ARG medical support. Write Medical SOP for Medical Guard Ship. Write the medical watch schedule with backup. Plan for Emergency Recall of key personnel. List of key personnel with every possible contact phone number in event of significant medical event. Plan (in excruciating detail) for management of intoxicated patients – poor planning here will burn you!

- ❑ Meet early with Husbanding Agent. A good relationship with this key person is essential.
- ❑ Arrange with Husbanding Agent for hospital visits by key medical personnel from ARG and require detailed written reports from them. The person(s) visiting the hospital(s) should be the first off the brow and their liberty should not start until the report is submitted and details included in the Medical Watch Officer's Log.
- ❑ MRCO clarify with Supply Officer and Husbanding Agent in advance how to pay for Civilian hospital and medical care. (see BUMED 14 MSG, FYXX CENTRALLY MANAGED ALLOTMENTS - see notes elsewhere in this book under BUMED 14.)
- ❑ Arrange and personally check local ambulance assets.
- ❑ Write SOP for hospitalized service member. Is 24-hr watch by an HM or a person from the individual's unit necessary?
- ❑ Coordinate plans for efficient MEDEVAC from foreign civilian medical facility. See MEDEVAC checklist to include TAD orders, uniforms, toiletries, pay advance, passport / VISA requirements, security of personal items, notification of next of kin (NOK), list of key telephone numbers (ship, ISIC, embassy, etc), chaperone requirements.
- ❑ Write detailed notification checklist for MO of the Watch to include squadron SDO, SDO of patient's unit or ship, CATF Surgeon or representative. Include criteria for notification.
- ❑ Be ready to discuss cases with NOK.

The MRCO Liberty-Watch BILL - A MRCO watchbill with 4 trained MRCOs can help manage handle administrative problems on liberty. Designate the MRCO as the on-scene medical administrator in-port to handle all administrative aspects of a patient while on liberty, such as paying bills, liaison with local hospitals and arrange MEDEVACs.

MASS CASUALTIES

A **mass casualty situation** exists when the number of casualties overwhelms available HSS capabilities. In the event of a mass casualty situation, medical regulating functions and patient evacuation activities are directed to promptly clearing as many patients as possible to other MTFs within or outside of the task force area of operations.

A **patient overload situation** exists when the capability of any single MTF is degraded to or beyond the point where it can no longer receive additional casualties. Patient overload situations require prompt and aggressive action so that normal treatment capability of the affected facility can be restored.

Elements contributing to a patient overload situation include surgical backlog, high percentage of bed capacity filled, personnel shortages resulting from casualties or excessive fatigue, shortages in HSS equipment / supplies, and shortages in blood or blood products.

Mass casualty and patient overload situation EXERCISES must be scheduled and performed regularly. The CATF Surgeon and SMO must assure that these exercises are truly challenging to be of authentic training value and do not degrade into paper drills conducted to satisfy a training schedule. Consider running the same drill in different warfare conditions (Condition IV, Condition III, Condition I). Also consider changing the triage area from Main Triage to one of the Battle Dressing Stations. CROSS-TRAINING of personnel is essential. Consider conducting a walking blood bank drill along with a mass casualty drill. The variations on the theme are unlimited.

Frequent DEBRIEFINGS are essential.

MEDEVAC

ENS Claude Long, MSC, USNR

INTRODUCTION

Patient movement is a dynamic process that presents a variety of challenges and circumstances that are rarely identical. FLEXIBILITY and ADAPTATION are the key management components. The following information is provided as a basic guide and is by no means conclusive or definitive guidance on processing patients for movement.

DISCUSSION

There are distinct differences in contingency and "real world," or routine deployment patient movement procedures. Most of the guidance or literature currently available dealing with patient movement is centered on contingency or wartime patient movement. This section is specifically designed for the "other" system, or peacetime medical regulating. Moreover, our focus will be on patient movement while deployed with a Carrier Battle Group (CVBG) or Amphibious Ready Group (ARG). While deployed to the Western Pacific patient movement will be accomplished primarily by way of commercial air. Patients without medical limitations will travel as regular passengers aboard common carriers. The decision must be made to move those patients with injuries or illnesses that preclude this type of travel utilizing the USAF MEDEVAC system or hospitalize them in a approved host nation medical treatment facility until able to travel. In the later case there is little hard and fast guidance and typically it is a decision to be made by the patient's CO in consultation with the medical authority (CATF Surgeon/SMO). If the decision is made to leave the patient in a host nation facility it is imperative that an escort remain with the patient. Depending on the circumstances a non-medical escort is appropriate.

PREPARATION

- Develop/verify Medical Smart Packs for each port and potential evacuation country or region. The easiest way to accomplish this is by ensuring you receive a pass down

from the returning ARG/CVBG and utilize the information on the AFMIC homepage (see references).

- Develop/acquire a complete MEDEVAC checklist. This should include a list of personnel that need to be made aware of the MEDEVAC (the list is long).
- Reference Fleet specific OPORDs and prepare message templates ahead of time.
- Finally, and most importantly get to know the folks that will make it all happen for you. This includes the ship Air Operations Officer, TACC Watch Officers, Combat Cargo, unit Personnel Officers, and Staff Watch Officers.
- Establish patient movement approval authority early on. Who has final medical authority to move a patient and how does the process work?

PATIENT PREPARATION

- Brief the patient on the details of the movement plan and make certain they verbalize understanding of where they are going and to whom they are to report. Provide patients with a *Patient Smart Card* that has pertinent points of contact (i.e., Fleet Liaison, ISIC Medical, Marine Corps Liaison, etc.).
- Patients should have a 7-10 day supply of medications for travel.
- Verify special equipment/restrictions with the attending MO.
- Ensure patient has adequate spending money in the event of travel delays. Consider cash advance from unit disbursing (the current recommendation is \$200).
- In most cases patients will not return to the unit once sent from the AOR. They should take all personal items of value, uniforms and civilian clothes (required for travel in 5th Fleet). Baggage restrictions apply and are normally limited to one bag and a small carry on. The remainder of the patient's belongings can be mailed by the unit or held until the unit returns to CONUS. This is a command function and is handled in a variety of ways.

ADMINISTRATION

- Schedule the flight through the appropriate coordinator. In most cases this will be the ship's Air Operations Officer.
- Copy all inpatient records; prepare Medical, Service and Dental records, and ensure all radiographs accompany patient.
- The patient will need 30 day FUNDED orders to the accepting MTF. Ensure that block 16 is checked and the language "...and all points in between" is included. This will provide continued funding in the event travel is delayed or intermediate stops are included in the itinerary. The MED-14 Funding Data does not apply to outpatient travel. Unit personnel officers should be provided with the MED-14 message and work out their own method of funding routine outpatient travel. One suggestion is to fund the travel as *automatic take-up* (ATU). With ATU the ship will be reimbursed by TYCOM for the travel rather than utilizing their TADTAR. The MEU has a similar system.
- Provide the accepting facility advance notice via e-mail and send appropriate message traffic. Enter the patient into the tracking matrix and continue tracking as appropriate. Keep ALCON informed of mission-specific details, changes or developments in order to avoid conflicts.

AIR FORCE MEDEVAC SYSTEM

DISCUSSION

The Air Force Aeromedical Evacuation System is infrequently used for routine deployment patient movement, but requisite knowledge of how and when to access this system is a must. There are two Theater Patient Movement Requirement Centers (TPMRC), the 374th Aeromedical Evacuation Squadron (AES) in Yokota, Japan and the 86th AES in Ramstein, Germany. The websites and contact information has been included for easy reference. The 374th AES has

cognizance over 3rd and 7th Fleets and the 86th AES in 2nd, 5th, and 6th Fleets respectively. There is no magic or difficulties in accessing this system and help is a simple phone call away. This is not to say, however, that there are not frustrations involved with working within the MEDEVAC system, especially while at sea and dealing with time zones, satellite communications and other operational constraints. Again, coordination and open lines of communication are your best assets.

PROCEDURES

Contact the appropriate TPMRC mission desk and request a mission. Ensure that you have all the patient/case information readily available. The mission desk watch officer will take the appropriate information and log in the mission request. A flight nurse or operations officer will contact you for more details and relevant medical information to validate the movement requirement. In most cases they will want to speak directly with the attending physician. TPMRC will assign a priority and schedule a mission. Utilize existing AES guidelines to prepare the patient. You will need to coordinate and obtain an accepting facility and physician and be sure to info them on the medevac message. Remember that based on the priority the patient could be moved to the closest MTF capable of rendering the appropriate care.

Helpful References:

- Armed Forces Medical Intelligence Center (AFMIC)
<http://mic.afmic.detrick.army.mil>
- Annual BUMED Centrally Managed Allotments for Overseas Patients Costs Message (annual)
- OPORD 201 (Third/Seventh Fleet)
- OPORD 1000-98 (Fifth Fleet)
- NAVMEDCOMINST 6320.19 (Establishment for Medical Cognizance of Air Evacuation Patients)
- OPNAVINST 6320.6 (Hospitalization of Service Members in Foreign Medical Treatment Facilities)
- BUPERS/BUMEDINST 1306.72F (Policy and Procedures Concerning Medical Hold Companies)

- ENLTRANSMAN Ch. 17 (Hospitalization of Enlisted Members)
- AFI 41-301 (Worldwide Aeromedical Evacuation System – 1 August 1996)
- AFI 41-302 (Aeromedical Evacuation Operations and Management – 28 July 1994)
- DODINST 6000.11 (Patient Movement – 9 September 1998)
- BUMEDINST 4650.2A (Documentation Accompanying Patients Aboard Common Carriers – 15 May 1972)
- NAVMED P-5115 (Aeromedical Evacuation – A Guide for Health Care Providers – 19 September 1986)
- BUMEDINST 6320.1E (Patient Regulating to and Within the United States – 30 March 1990)
- TPMRC Ramstein, Germany (374th AES); Commercial from US: 011-49-6371-47; from Europe: 49-6371-47; DSN: 314-480;
<https://wwwmil.usafe.af.mil/direct/sg/tpmrc/>
- TPRMC Yokota, Japan (86th AES); Commercial 011-81-311-755-4700/7595; DSN 315-225-4700

MEDICAL INTELLIGENCE PRODUCTS

INTRODUCTION

The Defense Intelligence Agency's Armed Forces Medical Intelligence Center (AFMIC) located at Fort Detrick in Frederick, Maryland, produces finished, all-source, medical intelligence in support of the Department of Defense (DoD) and its components, national policy officials, and other federal agencies.

MEDICAL INTELLIGENCE PRODUCTS

AFMIC produces a wide variety of medical intelligence assessments based on customer requirements. Major product families include the following:

Medical, Environmental, Disease Intelligence and Countermeasures (MEDIC) -

The MEDIC CD-ROM provides worldwide infectious disease and environmental health risks hyperlinked to the Joint Service-approved countermeasure recommendations, military and civilian health care delivery capabilities, operational information, disease vector ecology information, and reference data.

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

Environmental Health Risk Assessment (EHRA) -

EHRAs assess environmental health risks of operational military significance on a country-by-country basis worldwide. EHRAs are available via INTELINK and the MEDIC CD-ROM. The most current assessments are available on INTELINK.

Health Services Assessment (HSA) -

The HSA is designed to provide consumers the bottom-line assessment of the health services capability of a country, with limited descriptive data and examples relating only to critical

elements of the civilian and military health care systems. These studies are produced on countries with a validated production requirement by an intelligence consumer or with a high potential for US force deployment.

Urban Medical Capabilities Study -

The urban study is designed to meet the needs of the U.S. Special Operations Command (USSOCOM) and is produced as a reference aid. It includes a map of the urban area, general health information, and locations, descriptions, and images of key medical treatment facilities.

AFMIC Wire -

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

Disease Occurrence Worldwide (DOWW) -

The DOWW provides time-sensitive updates to the IDRA's. It is published monthly as an unclassified message, with a classified supplement, if necessary.

Life Sciences and Technologies -

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

Requests for Information (RFI) -

The RFI is your way of asking AFMIC for answers to questions which are not found in published studies. Generally, an RFI is a project requiring 40 or less hours for AFMIC to complete. RFIs should be directed to AFMIC through the Community On-line Intelligence System for End-Users and Managers (COLISEUM) or by contacting AFMIC Operations at its 24 hour contact number, DSN 343-7574 or Comm (301) 619-7574. Telephones are secure via STU-III through the TS-SCI level.

SUBMITTING REQUESTS FOR INFORMATION (RFI'S) TO AFMIC

Identify and clarify your medical intelligence needs. Write them down.

Check with your intelligence officers (S-2's, G-2's, J-2's, N2's) first; they may already have what you need.

Provide sufficient lead time for AFMIC to respond to your request.

Request reasonable suspense. Tell AFMIC the latest date and time it can provide the information.

Provide feedback.

- Upon receipt, tell AFMIC you received the response.
- Upon mission completion, report items of significance, submit after action reports, tell us whether medical intelligence was correct and met your needs, and submit recommendations for improvement.

SYSTEMS FOR DISSEMINATION OF INTELLIGENCE/INFORMATION

INTELINK has been described as the "classified on ramp to the information superhighway." The ultimate goal is to have INTELINK available at all battalion level and higher intelligence sections. All national level intelligence organizations, including AFMIC, have home pages on INTELINK. All AFMIC products are placed on INTELINK. In addition, each Unified Command Joint Intelligence Center has a home page. Within the Intelligence Community, INTELINK is rapidly becoming the preferred method of dissemination, with hardcopy publication a secondary method. Many recent intelligence publications are found on INTELINK. If preferred, INTELINK has a print capability.

SCI (JWICS)

<http://www.dia.ic.gov/intel/afmic/afmic.html> or

<http://164.185.1.1/intel/afmic/afmic.html>

SECRET (GCCS):
<http://www.dia.smil.mil/intel/afmic/afmic.html> or
<http://206.36.138.12/intel/afmic/afmic/html>

INTERNET

The INTERNET (world wide web) contains a variety of other unclassified sources. The Central Intelligence Agency has a home page where users may access the CIA World Factbook. The State Department home page contains State Department Country Fact Sheets, Embassy information, and travel advisories. Other commercial data bases are available (with more being added every day) that address areas of interest to medical planners, such as travel medicine.

TELECONFERENCING

Joint Worldwide Intelligence Communication System (JWICS) is a secure telecommunications system which links sites throughout the intelligence and operations communities. It allows, among other things, secure teleconferencing. In support of time-sensitive or complex requirements, a teleconference can be set up with AFMIC's country analysts. See your intelligence officer to determine if there is a JWICS site on your installation, then, work with the site manager and AFMIC Operations to set up a conference.

PROCEDURES FOR OBTAINING THE AFMIC WIRE AND DOWW

AFMIC produces the AFMIC Wire under Address Indicator Group (AIG) 6623 for CONUS (plus Alaska & Hawaii) recipients and under AIG 12630 for OCONUS (less Alaska & Hawaii) recipients. The DOWW is transmitted under AIG 12243 for CONUS (plus Alaska & Hawaii) and AIG 11829 for OCONUS (less Alaska & Hawaii) recipients.

To be added to distribution for any AFMIC message product, please send your name, organization, mailing address, routing indicator, plain language address, DSN and Commercial telephone numbers and a brief justification to AFMIC, ATTN: MA-OP, 1607 Porter Street, Ft. Detrick, MD 21702-5004 or

DIRAFMIC FT DETRICK MD//MA-OP//, DSN 343-3837 or
Comm (301) 619-3837.

PROCEDURES FOR RECEIVING AFMIC HARDCOPY, CD-ROM, AND OTHER INTELLIGENCE PRODUCTS

If your office is not receiving hardcopy intelligence products directly, check with your Intelligence Office (IN) or Security Office. Hardcopy publications produced by AFMIC and other producers are disseminated by the Defense Intelligence Agency (DIA) through the Joint Dissemination System (JDS) based on requirements registered by the organization in a Statement of Intelligence Interest (SII). In most organizations, the SII is maintained by the IN or the Security Office. Once the document is published, it is automatically mailed to that office and they should redistribute within the organization.

If your organization has an SII registered, your IN should modify the SII to reflect the addition of the appropriate Intelligence Function Codes (IFCs) and country codes to indicate your interest in medical intelligence.

To request a change in the distribution requirements for your organization or your organization does not have an SII registered with DIA, submit a request in writing or via electron message to DIA (ATTN: SVD-2) Washington DC, 20340-5100 (or to DIA WASHINGTON DC//SVD-2//) according to the following guidelines:

OSD/JCS and non-DoD national-level organizations:
submit directly to SVD-2.

Other DoD organizations: submit all requests via
your Dissemination Program Manager/administrative
chain of command.

AFMIC POINTS OF CONTACT -

For clarification of intelligence needs, guidance in reporting medical intelligence data, or "quick-response taskings," contact AFMIC. The numbers are STU III compatible.

- Commercial: (301) 619-XXXX, DSN 343-
- Operations Division: 7574
- 24-Hour Service: 7574
- Quick Reaction Taskings: 7574
- Clinical and Medical Sciences Consultant: 7511

- Chief Scientist: 7511
- Production Office: 2181
- Global Health Division: 7581
- Medical Capabilities: 7154
- Epidemiology / Environmental Health: 7269
- Life Sciences Technologies Division: 7409
- Information Systems Division: 7214
- Automation: 2686
- Bulletin Board Systems Operator: 7214
- Messages: DIRAFMIC FT DETRICK MD
- Correspondence to: Armed Forces Medical Intelligence Center, Fort Detrick
Frederick MD 21702-5004

EPMU Addresses

Navy Environmental and Preventive Medicine Units

NEPMU-2, Officer in Charge
1887 Powhatan Street
Norfolk, VA 23511-3394
DSN 564-7671 Comm (757)444-7671
Fax DSN 564-1191 Comm (757)444-1191
NAVENPVNTMEDU TWO NORFOLK VA
nepmu2@wrair-emh1.army.mil

NEPMU-5, Officer in Charge
Naval Station Box 368143
3035 Albacore Alley
San Diego, CA 92136-5199
DSN 526-7070 Comm (619)556-7070
FAX DSN 526-7071 Comm (619)556-7071
NAVENPVNTMEDU FIVE SAN DIEGO CA
nepmu5oic@troutnosc.mil

NEPMU-6, Officer in Charge
Box 112, Bldg. 1535
Pearl Harbor, HI 96860-5040
DSN 471-9505 (via operator assistance) Comm 808)471-9505
FAX Comm (808)474-9361
NAVENPVNTMEDU SIX PEARL HARBOR HI
nepmu6@hq.pacom.mil

NEPMU-7, Officer in Charge
PSC 824, Box 2760
FPO AE 09623-5000
Commercial from within the US: 011-39-95-56-4101
Commercial from within Italy: 095-56-4101, fax 011-39-95-56-4100
Commercial from within Europe: 0039-95-56-4101

DSN 624-4101
NAVENPVNTMEDU SEVEN SIGONELLA IT
sig1jam@sig10.med.navy.mil

Officer in Charge
Navy Disease Vector Ecology and Control Center, Bangor
19950 Seventh Avenue N.E.
Poulsbo, WA 98370-7405
DSN 322-4450 Comm (360)315-4450
FAX DSN 322-4455 Comm (360)315-4455
NAVDISVECTECOLCONCEN BANGOR WA
dva0xol@bumed30.med.navy.mil

Officer in Charge
Navy Disease Vector Ecology and Control Center
Box 43, Naval Air Station (Building 437)
Jacksonville, FL 32212-0043
DSN 942-2424 Comm (904)772-2424
FAX DSN 942-0107 Comm (904)779-0107
NAVDISVECTECOLCONCEN JACKSONVILLE FL
dvj0ccj@bumed30.med.navy.mil

Navy Medical Research Units

Commanding Officer
U.S. Naval Medical Research Unit No. 3
PSC 452, Box 5000
FPO AE 09835-0007
NAVMEDRSCHU THREE CAIRO EG
Comm 011-20-2-284-1381
Fax 011-20-2-284-1382
namru@centcom.dsaa.osd.mil

Officer in Charge
US Naval Medical Research Unit No. 2
UNIT 8132
APO AP 96520
NAVMEDRSCHU TWO JAKARTA
Comm 011-62-21-421-4457 through 63
Fax 011-62-21-424-4507
namru2@wrair-emh1.army.mil

Officer in Charge
U.S. Naval Medical Research Institute Detachment
American Embassy Unit 3800
APO AA 34031-0008
NAVMEDRSCHINSTITUTE DET LIMA PE
Comm 011-51-14-52-9662
Fax 011-51-14-52-1560

MEDICAL INTEL REPORT CHECKLIST

(send to AFMIC through your N2)

- Hospital: Name, location, distance from port / pier / helipads / airport / other hospitals / military bases.
- Geographic location: Lat/long – GPS
- Vital stats: No. of beds, ICU, CCU, Burn unit, ORs.
- Capability of labs. Blood bank. Emergency room capability.
- Key telephone / fax / email information
- Ambulance capability.
- Biography sketch / CV of Key personnel and POCs: Administrator, Medical director, key physicians and others. Need for translator.
- Need for nursing care or other support from the ship (i.e., nursing care not available at local hospital)
- No of doctors, nurses, ancillary staff.
- Level and location of training of medical and nursing staff.
- Availability of higher echelons of care.
- Lab, xray, imaging (ultrasound? CT?), pharmacy, blood bank information.
- Description of helipad: size, location, surrounding obstacles (and height), availability at night.
- How to pay local hospitals and medical personnel?
- POC at local embassy, consul, husbanding agency.
- Decedent affairs: local coroner requirement and customs, local requirement for autopsy. Get embassy involved ASAP.
- Name of the Husbanding Agent and degree of helpfulness.

MESSAGE READING AND WRITING

(Several sources, esp. *LT Christian's Little Blue Book*)

See diagrammed message following line descriptions.

Line #1 - This line shows the priority classification of the message. A message has a priority rating of "Routine," "Priority," "Immediate," etc., which determines how fast the message will be sent. If the message is routine, rest assured it won't arrive by the end of the workday. The radioman is not going to interrupt a coffee break to send out a routine message. "Priority" messages will probably arrive the same day. "Immediate" means stat; medical officers rarely deal with these. Radio central is manned by a group of professionals who will do anything they can to help you. If you are unsure of a classification, ask them for help.

Line #2 - A group of numbers and letters used by radio personnel for transmission and processing purposes. You do not need to know any of this.

Line #3 - This is the date-time grouping. The first two numbers are the date; the next four correspond to Zulu time (Greenwich Mean Time) that the message was sent. The month and year are next. For example, 150940Z Nov 90 is 15 Nov 1990 at 0940 Zulu time.

Line #4 - FM means "from"; the originator.

Line #5 - Recipient of the message. Also called action addressee.

Line #6 - N9 is an office code, to direct the message to the correct individual or office. Radio or Ops can help you look them up. Medical is usually N12 or 012.

Line #7 - INFO: those who receive a copy of your message. These should include senior medical and line commands and advisory units (Preventive Medicine Units); this allows heads-up on pending or ongoing medical problems.

Line #8 - Security classification of the message. Messages classified secret, confidential, or top secret are not for public consumption. Be careful.

Line #9 - Required in JINTACCS message form. If you have a message writing program on the computer, this is already in the program. Otherwise, you must add it to each message.

Line #10 - Subject line; what the message is about.

Line #11 - References

Line #12 - Body of message. Be brief, but concise. Many messages begin with "IAW REF A." This translates, "in accordance with reference A." If you don't have reference "A"- get it. You'll look silly if it contains critical info and you act without all that you need.

Line #13 - "1 of 4" refers to the page 1 of a 4-page message.

Line #14 - BT means, "Break transmission." End of the message. Be sure you see it, or you might miss a big chunk of the message.

SAMPLE

ROUTINE #1

RAAUZYUW RHIPAAA 3651 3191738-UUU-RUCACC #2
ZNRUUU
R 150940Z NOV 90 #3

FROM: USCINCCENT//CCSG// #4

TO: USCENTCOMREAR MACDILL AFB FL//CCSG// #5
DIRAFMIC FT DETRICK MD//
COMUSNAVCENT//SG//
COMUSMARCENT//MED//

COMUSNAVLOGSUPFOR//N9// #6
USCINCPACHONOLULU HI//
USCINCLANT NORFOLK VA//
CNO WASH DC//OP0932//

INFO: NAVENPVNTMEDU FIVE SAN DIEGO CA// #7
NAVENPVNTEMEDU SEVEN NAPLES IT//
NAVENPVNTEMEDU SIX PEARL HARBOR HI//
NAVENPVNTMEDU TWO NORFOLKS VA//
NAVMEDRSCHU THREE CAIRO EG//

UNCLAS #8
SECTION 1 OF 2
OPER/DESERT SHIELD//

MSGID/SYS.RRM/USCINCCENT CCSG-PM// #9
SUBJECT: PREVENTIVE MEDICINE GUIDANCE FOR OPERATION DESERT
SHIELD// #10

REF/A/HEAT STRESS INJURY PREVENTION/NAVEMED P-5052-5// #11
AMPN/REF A IS PRIMARY MEDICAL REFERENCE FOR NAVY PERSONNEL.
RMKS/1. THIS GUIDANCE APPLIES TO UNITS #12
DEPLOYING TO DESERT SHIELD. PARTICIPATING UNITS WILL IDENTIFY
PREVENTIVE MEDICINE REQUIREMENTS AND ENSURE
TRAINING/CERTIFICATION OF FIELD SANITATION TEAMS (FST). IN
ADDITION, UNITS WILL IDENTIFY AND TRANSPORT SUPPLIES/EQUIPMENT
REQUIRED TO PROPERLY EXECUTE FIELD SANITATION MISSION.
PARTICULAR ATTENTION WILL BE GIVEN TO:
A. PREVENTION OF HEAT INJURIES. IAW REF A,
ENVIRONMENTAL CONDITIONS WIL BE MONITORED UTILIZING WBGT INDEX
AND APPROPRIATE WORK/REST CYCLES EMPLOYED. TO AVOID
DEHYDRATION, WATER INTAKE MUST MONITORED AND ENFORCED.

PAGE 01 OF 04 #13
BT #14

MOBILE MEDICAL AUGMENTATION READINESS TEAM (MMART)

BUMEDINST 6440.6

The mission of a Mobile Medical Augmentation Readiness Team (MMART) is to provide rapid short-term (less than 180 days) flexible medical augmentation for peacetime operations.

MMARTs will augment deploying medical units supporting military operations. They can also augment shore-based MTFs or family support centers most commonly with a special psychiatric rapid intervention teams. MMARTs are also commonly used to support humanitarian relief and preventive medicine efforts.

Six diverse but interactive teams normally make up the MMART. The six types of teams are: surgical, medical regulating, special psychiatric rapid intervention, humanitarian support, specialist support, and preventive medicine.

- The Surgical Team (ST) is composed of three units: surgical unit; surgical support unit; ancillary support unit. The surgical unit provides general surgery, the surgical support provides pre- and post-operative care, and the ancillary support unit provides radiology, laboratory, pharmacy, respiratory, and blood bank needs.
- The Medical Regulating Team (MRT) coordinates and controls evacuations of patients to Medical Treatment Facilities (MTF) for further treatment. They also establish the medical communication network.
- The Special Psychiatric Rapid Intervention Team (SPRINT) provides short-term mental health and emotional support immediately after a crisis. The team may also provide educational and consultative services to local supporting agencies.
- The Humanitarian Support Team (HST) will respond to migrant processing and support, disaster relief, non-combatant evacuation (NEO), or exposure to chemical or biological hazards.

- The Specialist Support Team (SST) can provide specific healthcare provider specialties, such as orthopedics or neurosurgery.
- The Preventive Medicine Team (PMT) assesses, prevents, and controls potential and actual health threats in support of operating forces and disaster relief. They may address situations where casualties are exposed to chemical, biological, or radiological (CBR) agents. Identify risk and recommend means of prevention for communicable disease or sanitation problems. They may also be involved in control of pests, rodents, and vector-borne diseases.

Surgical teams may be assigned to amphibious assault ships in support of the Amphibious Readiness Group (ARG) with an embarked Marine Air Ground Task Force (MAGTF). Another potential assignment could be to the Fleet Marine Force (FMF) in support of a medical battalion or MAGTF commander. In the event of military contingencies or natural disaster, MMARTs may provide additional support for influx of patients. They may also be assigned to a naval activity upon request or in event of an emergency. MMARTs may be tasked to provide assistance to Foreign Governments. They are commonly used to support Fleet and FMF exercises. When mobilized, they revert to Casualty Receiving and Treatment Ship augmentation billets.

There are eight MMARTs in seven different locations throughout the continental United States:

- #1 NMC San Diego (ST, MRT, SST, HST, SPRINT),
- #2 NMC Portsmouth (ST, MRT, SST, HST, SPRINT),
- #3 NH Camp Pendleton (ST, MRT),
- #4 NNMC Bethesda (ST, MRT, SPRINT),
- #5 NH Bremerton (ST, MRT, SPRINT),
- #6 NNMC Bethesda (ST, MRT),
- #7 NH Pensacola (ST, MRT),
- #8 NH Jacksonville (ST, MRT).

BUMEDINST 6440.5A and BUMEDINST 6440.6 define MMART training requirements.

Required training includes:

1. a 3-5 day course at Field Medical Service School,
2. the 5-day Landing Force Medical Staff Planning Course, and
3. a course in CBR casualty care.

Command level MMART training should include:

1. Basic Life Support (BLS),
2. Advanced Cardiac Life Support (ACLS), and
3. Advanced Trauma Life Support (ATLS) for specific healthcare providers to maintain certification.

Additional training should include:

1. supply block orientation,
2. small arms training,
3. shipboard orientation,
4. participation in local emergency preparedness exercises, and
5. personal CBR protection.

Other training opportunities may include such things as Triage or Critical Incident Response Counseling.

There are specific procedures for requesting MMART support. The requesting activity is responsible for identifying the need and initiating the request via message informing the Bureau of Medicine and Surgery (MED-27 at BUMED). This request for support is routed through the chain of command to the CINC, who will validate the requirement and send a message to the Chief of Naval Operations (CNO) N931. CNO 931 will approve or disapprove the request and task BUMED (MED-27). MED-27 identifies the MMART to be used and coordinates the deployment.

REFERENCES: BUMEDINST 6440.6, Mobile Medical Augmentation Readiness Team (MMART) Manual

WARTIME M+1 MANNING OF CRTS

CAPT Frank Tesar NC BUMED 56A
CDR Dennis McClain NC BUMED 2712

DoD Directive 1322.24 directs annual training for a minimum of 5 days for all health care personnel assigned to a mobilization billet. This training includes orientation to the billet, an annual mission briefing on the deployment environment, and introduction to the type of equipment the member will use on deployment. Tri-annual training is required for all personnel with their designated operational unit for a minimum of 5 days. MTF personnel assigned to hospital ships, fleet hospitals, medical battalions, and MMARTs have regularly scheduled training. M+1 wartime manning training for CRTS augmentees is being developed.

For planning purposes, the CATF Surgeon and SMO of the large-deck amphibians must know the details of the ROC/POE that affect the medical department. The ROC/POE for the large-deck amphibious ships states that a secondary mission of these ships is to serve as CRTSs for wartime amphibious ops. The current peacetime medical department of the CRTS (even with a FST) is inadequate to fulfill the wartime medical mission of the vessels. Key details of proposed changes to the ROC/POE for both the LHD and LHA are a surgical capability of four ORs, 15 ICU/Recovery beds, 45 ward/holding beds, and a blood bank capacity of 650 and 500 units respectively. Current planning designates 84 medical personnel as M+1 augmentees for each CRTS. The Health Support Organization (HSO) on each coast and BUMED 27 maintain these lists with names. Navy Medical Department staffing lacks the mix of specialty personnel to fill 100% of platform augmentation requirements. The complexities of providing the right NOBC/NEC personnel offset against the needs of the other operational platforms and the MTFs to meet their contractual requirements falls on BUMED 27. Request this tasked medical augmentation THROUGH YOUR CHAIN OF COMMAND to the CNO's N931 division. Upon validation of the request, N931 tasks BUMED-27 to act on the request.

BILLETS

The specific billets of the M+1 augmentation team are under continuing evaluation but presently consist of the following:

General Surgeons.....3	HM augmentation
Orthopedic Surgeons.....2	Gen HM (0000).....25
Anesthesiologists.....3	Med Reg.....2
CRNAs.....2	X-ray Tech.....2
IM / Critical Care.....3	BioMed Repair.....1
Nurse Corps	Pharmacy.....1
OR.....5	OR Tech.....0
ICU.....7	Psych Tech.....2
Ward.....6	Ortho Tech.....2
ER.....2	Lab Tech.....1
MSC augmentation	RT Tech.....3
Med Tech.....1	
Med Reg.....1	
	TOTAL = 84

Clearly, adding this many personnel to a warship taxed for space presents complex planning issues. The CPG Medical Officers, the CATF Surgeon, and the SMOs of each CRTS must be a source of current information for the squadrons and ships. Even if not warmly received, the Line must have accurate data. The CATF surgeon and SMO should work with the MMPO of the MTF and senior leadership of the M+1 augmentees for effective contingency planning.

Each CRTS's M+1 personnel come from a specific MTF.

Number of Teams	MTF	MMPO Tel.
1	Great Lakes	847-688-3843
3	Portsmouth	757-953-5302
1	Bethesda	301-295-2880
1	Jacksonville	904-777-7921
3	San Diego	619-532-5766
N931		703-601-1715
BUMED MED 27		202-762-3425

References: DoD Directive 1322.24
OPNAVINST 3501.LPD17 DRAFT April 30, 1998

POST DEPLOYMENT CRITIQUES

LT William Hatley, MSC, USN

The **Post Deployment Critique** (PDC) (MED 6440-3) reports significant medical occurrences during a deployment. The operational commander notes the various types of support provided by the Medical Department (FSTs, MMARTs, M+1 manning, and other embarked).

- A. The PDC provides the administrative chain of command information essential to maintain effective medical support. BUMED is tasked by the CNO to resolve any outstanding issues. BUMED responds to the CNO's endorsement and provides copies to all parties, including the commands supplying the MMARTs and CATF Surgeons, closing the feedback loop and providing information for additional training.
- B. Address administrative support issues of the deployment in the chain of command, not the PDC. Unless it is a problem that may affect the medical department, MMART or FST programs, or M+1 manning, resolve such issues at the lowest level possible without referral to BUMED.
- C. Unless otherwise directed, the MMART leaders submit PDCs for deployments in support of operations other than those for amphibious ready groups to BUMED via the requesting and operational chains of command.

Responsibilities. The CATF Surgeon (or senior team leader) must submit PDCs on all amphibious ready group deployments based on written input from the SMO, MMART Team Leader, key FST personnel, or M+1 leadership (which may be forwarded as enclosures). Submit the PDC to BUMED via the chain of command as follows:

- a. Commander, Amphibious Task Force
- b. The Amphibious Group Commander.
- c. The Surface Force Commander (TYCOM).
- d. The Numbered Fleet Commander (as needed).
- e. The Fleet CINC.

with advance copies forwarded to:

- a. The Chief of Naval Operations (N093)
- b. The Fleet CINC.
- c. Surface Force Medical (COMNAVSURFLANT/PAC)
- d. Bureau of Medicine and Surgery (MED 27)
- e. The Armed Forces Medical Intelligence Center (AFMIC)
- f. Surface Warfare Medicine Institute (SWMI)

Format. The critique must document significant events relative to deployment experiences, including, in this order:

- a. Background of deployment evaluations, including predeployment visits and workup dates.
- b. Principle activities (with dates) during the deployment.
- c. Problems encountered and how resolved or recommended solutions for unresolved problems.
- d. Assessment of FST / MMARTs contribution to mission.
- e. Lessons learned.

Enclosures. Provide these initial enclosures (preceding the MMART and Ship's Medical Officer input):

- a. Specific recommendations (NSN, manufacturer catalog number or NDC, nomenclature, unit of issue, quantity, justification, and why similar carried items do not meet requirements) for AMMAL update or revision.
- b. Personnel roster for FST / MMART.
- c. Workload summary.
- d. Evaluation of medical care availability in friendly nations normally obtained during port call visits.
- e. Training provided by FST / MMART members to ship's company, embarked troops, and others. Types of training, who provided, who received, numbers, etc.

References: BUMEDINST 6440.6, MMART Manual

POST DEPLOYMENT CRITIQUE TEMPLATE

6440
Ser
(date)

From:
To: Chief, Bureau of Medicine and Surgery (MED 00/27)
Via: (1) Commander Amphibious Group ONE (TWO or THREE)
(2) Commander Naval Surface Force, U. S. Atlantic (Pacific) Fleet
(3) Commander Second Fleet (SEVENTH/SIXTH...if appropriate)
(4) Commander-in-Chief, U.S. Atlantic (Pacific) Fleet (N02M)

Subj: POST DEPLOYMENT CRITIQUE (MED 6440-3)

Ref: (a) BUMEDINST 6440.6

Encl: (1) Personnel Roster
(2) Workload Statistics
(3) AMMAL Change Recommendations
(4) Training Schedule
(5) Port Visit Assessments
(6) Problems and Recommended Solutions
(7) Lessons Learned
(8) USS Medical Officer's Comments
(9) USS Medical Officer's Comments
(10) USS Medical Officer's Comments

1. On {date}, Fleet Surgical Team TWO (MMART TEAM EIGHT, etc.) was assigned to Amphibious Squadron EIGHT in support of Mediterranean Amphibious Ready Group 99-2. The Commander Amphibious Task Force (CATF) Surgeon and FST Medical Administrative Officer visited the USS XXX, USS YYY, and USS ZZZ to review preparations for deployment. The Fleet Surgical Team will be embarked on board USS YYY for this deployment. Workups commenced on {date} with successful completion of Special Operations Capabilities for Marine Expeditionary Unit TWO on {date}. During the Pre-Overseas Movement (POM) period, a final review was completed on the medical departments for the deploying units to ensure final preparations for deployment. MARG 99-2 departed on {date} to embark troops at Morehead City, NC.

2. During this deployment we participated in joint and combined exercises with the Spanish, Italian, French, Greek, Tunisian, Egyptian, Israeli, and Turkish military forces. This proved to be most valuable training for our medical departments. We participated in the following exercises:

ccc
vvv

3. Enclosure (1) forwards the roster of embarked medical personnel from Fleet Surgical Team X (MMART Team).
4. Enclosure (2) forwards the workload statistics during the work-ups and deployment.

5. Enclosure (3) forwards a list of recommended changes to the Ship's Authorized Minimal Medical Allowance List (AMMAL).
6. Enclosure (4) forwards the medical training schedule for MARG (ARG) 99-2.
7. Enclosure (5) forwards summaries of the port visits and medical capabilities of the host nations.
8. Enclosure (6) forwards a summary of problems encountered on this deployment and recommended solutions.
 - a) Problem:
 - 1) Discussion:
 - 2) Solution or Recommendations:
 - b) Problem: (etc)
9. Enclosure (7) forwards the Lessons Learned during this deployment.
10. Enclosures (8) through (N) forwards the comments from the Ship's Senior Medical Officers / Senior Medical Department Representatives.
11. Overall assessment of the FST / MMART's contribution to the deployment.

//s//

Copies to:

File

CNO (N-093)

CINCLANTFLT/PACFLT (N02M/N01M)

COMNAVSURFLANT/PAC (N02M)

BUMED (MED 27)

Surface Warfare Medicine Institute, San Diego

AFMIC

PRE-DEPLOYMENT CHECKLISTS FOR THE CATF SURGEON

There are two lists incorporated here, ordered differently. The first is from BUMEDINST 6440.6 series Appendix L, the other from a PHIBGRU 3 Surgeon. They are complementary. Use these checklists as a reminder of items to be coordinated before, during, and after a deployment. The CATF or Group medical officer may add items to the list.

BUMEDINST 6440.6 series

MMART

- MMARTs requested.
- Pre-positioned MMART blocks verified.
- Surgical support supply block requested for LPH.

SHIP

- AMMAL and ADAL previewed.
- Deploying ships identified and inspected.
- AMMAL and ADAL at 100 percent.
- Industrial hygiene and environmental health survey completed.
- Radiation health survey completed.
- TAV/MRE completed.
- All equipment deficiencies identified and corrected.
- All personnel deficiencies identified and corrected.
- Mass casualty drill current.
- DERAT certificate current and will remain current during deployment.
- QA visits initiated.
- Operating rooms and ICU and recovery rooms inspected by MMART members and deficiencies identified and corrected.
- SMDR current in HM-8425 (IDC) refresher training.
- Security clearances verified.
- Initial Planning Conference attended. **
- Predeployment workup (KU/GWW) planned.
- Mass casualty drill scheduled.
- Medical regulating drill scheduled.
- Pre-exercise messages drafted.
- Exercise scenarios and plans approved by CATF and CLF.
- Deployment OPORD / OPGEN drafted.
- Standing orders incorporated.
- Medical officer watch bill policy established.
- Medical guard ship policy established.
- Mass casualty and mass conflagration policy and procedures determined
- Liaison with MEU medical staff (CLF surgeon) established.
 - Identify MEU medical resources.
 - Determine medical loading plan.
 - Set policy for integrating MEU medical assets into ATF.
- Whole blood program requirements verified.
 - Blood program officer assigned.
 - ATF capabilities determined.

**** "..... be there early, often, and ugly."**
LT Ed Kownslar, MSC, USN

- ()..... Methods identified to obtain whole blood during deployment.
- ()..... Blood volume expansion products policy determined.
- ()..... Quarantine regulations reviewed.
- ()..... Special medical requirements and policies identified:
 - ()..... Antivenin
 - ()..... Rabies.
 - ()..... Immunizations.
 - ()..... Antimalarial prophylaxis.
- ()..... Medical intelligence requested:
 - ()..... Disease Environmental Alert Report.
 - ()..... AFMIC.
 - ()..... Disease summary.
 - ()..... Host nation support.
- ()..... Port directory reviewed.
- ()..... Medical regulating channels and procedures confirmed.
 - ()..... MRCO appointed and security clearance verified.
 - ()..... PCRTS and SCRTS named.
 - ()..... Casualty evacuation points determined.
 - ()..... Evacuation methods and policies set for emergent, routine, and lateral transfers within ATF.

BIOMEDICAL EQUIPMENT TECHNICIAN SUPPORT

- ()..... All equipment certified before deployment.
- ()..... Underway support determined.
- ()..... Method of obtaining emergency replacement gear.

QUALITY ASSURANCE (QA) AND CREDENTIALING

- ()..... Policy for QA established.
- ()..... QA review schedule established.
- ()..... All embarked providers' credentials follow current BUMED authority.
- ()..... Special privileges applied for and verified (vasectomy, etc).

TRAINING

- ()..... Special training requirements identified (Cold Weather, Tropical Medicine, DBR, Med Reg, Landing Force Medical Staff Planning...)
- ()..... ATLS/ACLS/BCLS/IV certification current for applicable personnel.

TIGER / DEPENDENT CRUISE

- ()..... Medical questionnaire completed by each Tiger.
- ()..... CATF and commanding officers notified of specific Tigers with potential medical risks.
- ()..... Medical policy for Tigers approved by CATF / TYCOM.

BRIEFINGS ARRANGED

- ()..... EPMU.
- ()..... Predeployment briefing books obtained.
- ()..... MMART PDV and GWW arranged.
- ()..... HIV certification message to TYCOM.
- ()..... Final visit with TYCOM / PHIBGRU medical.

POST-DEPLOYMENT

- ()..... PDC completed for CATF signature.
- ()..... EPMU debriefed.
- ()..... Brief book updated and returned to PHIBGRU.
- ()..... Closing courtesy call on CATF.

PRE-DEPLOYMENT CHECKLIST
for the CATF SURGEON
PHIBGRU THREE

D-180

- Embark aboard ship with PHIBRON.
- Transfer Service / Pay / Medical / Dental records to ship.
- Send COMSHIFT message.
- Send mail routing message.
- Start attending PHIBRON staff meetings daily.
- Attend all planning meetings held by PHIBRON / MEU.
- Visit Commanding Officers: Ships, MEU CE, BLT, ACE, MSSG.
- Discuss preparations for deployment, joint quals (SWMDO, pistol, rifle).
- Visit MEF Surgeon.
- Begin preparation of CATF Surgeon CONOPS for deployment.
- Review MMART Deployment Checklist (Appendix L of BUMEDINST 6440.6).
- Review CLF Surgeon Checklist (Attachment C of MED 025, Landing Force Staff Planning Student Handout).
- Review POA&M in COMNAVSURFPACINST 6000.1F, Section 3.
- Set up meeting schedule:
 - ARG / MEU medical meetings monthly,
 - Ship / FST / MEU CE / BLT / ACE,
 - All Medical Officer.
- Meet with Senior Dentist.
- Begin reviews of:
 - AMMAL / ADAL,
 - Major equipment,
 - NEO supplies / CBR gear,
 - Medications (special): malaria prophylaxis, ISG, JEV, Depo-Provera.
- Contact CPG for dates of MRAs.
- Document and monitor medical CASREPs; ensure all broken equipment is CASREP'd and parts ordered.
- Set up master training flow sheet for FST / ships / MEU.
- Set up training program for needed training or special topics (MEDREG, Helo Dunker, Landing Force Medical Staff Planning, Tropical Medicine, STDs, AIDS, Female Health Problems, Sexual Assault Victim Intervention).
- Meet with RADIO (PHIBRON, Ships, MEU) to set up MEDREG Net.
- Review Mass Casualty plans for each ship.
- Review Aircraft Accident procedures; (Discuss with ACE surgeon).
- Inspect all medical spaces on all ARG ships (wards, ORs, ICU).
- Review Post Deployment Critiques from last 2-3 years (FST, MEU and ship).
- Review Blood Program.
- Oversee Immunizations, HIV, and DNA testing of crews.
- Appoint CME coordinator & establish underway CME, CE, CEU programs.
- Order CME materials for docs (audio/video tapes, monograms) and corpsmen (Advancement reviews, LVN certification review).
- Set up berthing: Contact PHIBRON CSO for CATF Surgeon berthing.
- Contact Ship's Supply Officer for FST berthing.
- Meet with N3 and obtain deployment schedule.
- Meet with N2 for info on host nation medical support.
- Order PQS material for SWMDO, ESWS, EAWS.

- Review PRDs of staff; address difficulties with CPG-3 MO.
- Initiate paperwork for security clearances.
- Develop FST roster with recall phone numbers and addresses of significant others.
- Ensure all medical staff begin work on personal preparations for deployment (will, power of attorney, extra glasses, one pair gas mask inserts, allotments, full sea bag, passport, dog tags, Geneva Convention Card, immunizations, all dependents on DEERS, etc.).
- Schedule monthly FST social get-togethers / parties.

D-150

- Meet with ARG / MEU medical (all ships medical departments / FST / MEU CE / BLT / ACE).
- Meet with all Medical Officers.
- Review results of Initial MRA with CPG-3.
- Monitor progress on medical CASREPs.
- Update Training Flow Sheet.
- Update deployment schedule.
- Address space issues.
- Conduct monthly FST party.
- Attend D-150 brief conducted by PHIBRON.

D-120

- Deadline for distribution of CATF Surgeon CONOPS for deployment.
- All introductory visits should be completed.
- Attend scheduled meetings and address issues.
- CASREP update.
- Training update.
- Update all periodic (5 year) physicals.
- Remind ARG females to update Pap smears.
- Announce the date of pre-deployment PRT.
- Identify any non-AMMAL medical supplies needed.
- Attend all PHIBRON staff meetings (details change as deployment nears).
- Obtain medical resource material on proposed AOA (DISRAPs / DEAR).
- Address space issues.
- Address staffing issues.
- Contact EPMU 5 to schedule Preventive Medicine update lecture during Pre-Deployment brief (30 days before deploying).
- Establish FST spouses club.
- Appoint FST ombudsman.
- Continue with monthly FST parties.
- Attend D-120 brief conducted by PHIBRON.

D-90

- Review results of MRA with CPG-3.
- Attend scheduled meetings and address issues.
- Update on evolving issues: CASREPs, Equipment, Training, Space, Staffing, Berthing.
- Continue monthly FST parties.
- Attend D-90 brief conducted by PHIBRON.

D-60

- Updates: CASREPs, Training, Equipment, Space, Staffing, Berthing.
- Immunizations, HIV and DNA testing should be near 100% by now.
- Begin drawing most issues to closure: Security Clearances, Equipment.

- Ensure IH and EHO surveys are completed.
- Call about any ordered material not yet delivered.
- Attend scheduled meetings and aggressively address issues.
- Meeting with MEU medical should emphasize screening of personnel, i.e., personnel should bring their non-AMMAL medications and two pair of glasses.
- Meet with Commanding Officers again regarding last minute concerns.
- Develop agenda for Pre-Deployment brief.
- Conduct PRT for the FST.
- Call EPMU-5, CPG-3 MO, and Ship's SMDRs as a reminder of Pre-Deployment Brief.
- Continue with monthly FST parties.
- Attend D-60 brief conducted by PHIBRON.

D-30

- All outstanding issues need to be aggressively pursued and closed: CASREPs, Training, Equipment, Space, Staffing, Berthing, Security Clearances.
- Conduct Pre-Deployment brief.
- Contact hospital medical departments and obtain Performance Appraisal Reports for all medical staff TAD to hospital.
- Conduct straggler PRT.
- Coordinate POM period leave for FST members.
- Perform last SERVMART run for office supplies.
- Schedule final FST / Medical Party.
- Attend D-30 brief conducted by PHIBRON.

1. Each at sea period should include:

- a. Mass Casualty Drill
- b. Medical Regulating Drill
- c. Walking Blood Bank Drill
- d. Elective surgical procedures

2. Meetings with all Medical Officers should include:

- a. CME expectations and schedule
- b. QA

3. CATF Surgeon CONOPS for Deployment should include:

- a. Establishment of Chain of Command
- b. SOP for medical emergencies, consults, patient transfer and MEDEVAC
- c. SOP for Medical Regulating
- d. QA policy
- e. SOP for special cases: Rape, Disease Alert Reports
- f. CME schedule and expectations
- g. Reports: Joining reports, OPSUM information, Disease Reports
- h. Decedent affairs issues
- i. MEDCAP / DENCAP procedures
- j. Humanitarian Operations
- k. HAZMAT disposal

4. Spouse's Club Agendas should include:

- a. Calendars for months of deployment
- b. Newsletters
- c. Monthly meetings

- d. Hand carried mail
 - e. Phone list and numbers to call for help (ombudsman, care line, etc.)
 - f. All spouses holding ID cards which will not expire during deployment
 - g. All spouses have list of emergency numbers to call for home problems, i.e., landlord, car trouble, major appliance problems
5. **Things to cover at ARG / MEU meetings:**
- a. Establishment of spouse clubs for all medical units
 - b. Appoint ombudsmen for each unit
 - c. Personal issues checklists
 - d. Screening of personnel to be sure each has adequate supply of non-AMMAL medicines, at least two pair of glasses and one pair gas mask inserts and passport (in case of MEDEVAC)
 - e. Identification of shipboard spaces for each medical unit (FST, MEU)
6. **Training requirements should include:**
- a. Medical Regulating for OIC, MRCO, LPO, selected enlisted
 - b. Fire Fighting – all
 - c. Damage control – all
 - d. 3M – all
 - e. Helo Dunker (N9 training) – all
 - f. Landing Force Medical Staff Planning - OIC, MRCO, other interested officers
 - g. BLS – all
 - h. BLS Instructor – 1-2 physicians and/or nurses
 - i. ACLS - all physicians, nurses, interested enlisted
 - j. ACLS instructor – 1-2 physicians and/or nurses (recommended)
 - k. TNCC - all nurses
 - l. ATLS - all physicians
 - m. ATLS instructor – 1-2 physicians (recommended)
 - n. Pistol qualification - all interested
 - o. Rifle qualification - all interested
 - p. AIDS training – all
 - q. IV certification - all corpsmen
 - r. Medication certification - all corpsmen
 - s. Cold weather medical training - 1 physician (recommended)
 - t. Tropical Medicine - 1 physician (recommended)
 - u. Medical Management of Chemical Casualties - 1 physician
 - v. Introduction to CBR defense - 1 physician
 - w. Surface Warfare Medical Officer Indoctrination Course - interested medical officers

PREVENTIVE MEDICINE (PM) SUPPORT IN FIELD OPERATIONS

CAPT Konrad Hayashi, MC, USN

Mission Requirements

- **First** - Maintain the readiness of United States and Coalition Forces
- **Second** - Humanitarian Assistance as directed by the

JTF Commander

- **Best source** - NWP 4-02 (Operational Health Service Support)

Joint Preventive Medicine Officer (JPMO)

- Physician who is residency-trained in epidemiology. Best to be integrated EARLY into the JTF planning process (Security clearance, review OPLAN, coordinate with logistics, civil affairs, engineering, veterinarians, entomologists, and myriad other players).
- Writing the OPORDER, Annex Q (Prev Med Section).
- Obtain and filter medical information (AFMIC, PAHO, Embassies, State Dept, tourists, recent visitors, etc.).
- Advise on immunizations, malaria chemoprophylaxis, personal vector protective measures, prepare educational efforts for pre-deployment, deployment, & post-deployment phases of operation.
- Raise PM specific questions: Isolation of suspected tuberculosis cases on ship, vaccinations of refugees, waste treatment, etc.
- Advantageous to have worked with the JTF Surgeon and other J staffers.

Deployed Field Responsibilities

- Oversight over all aspects of PM including DNBI surveillance, camp placement, outbreak response, redeployment PM guidance, food service and campsite inspections, contract advice.
- Late arrival means playing "Catch-up;" missed opportunities to meet / plan with staff and executors.
- Need to be an advisor, perhaps a goader, especially to the "Willfully Clueless."

Reasons Preventive Medicine May Not Be Invited

- Senior's lack of experience and consequent lack of knowledge.
- PM requires transport and support logistics.
- PM might be perceived as "research," not organic garrison staffing.
- Site Commander may think the PM issues can be dealt with "on the fly."

- PM is considered an "outsider," more on the Commander's operations.

Beneficial Effects of Preventive Medicine in OOTW

- Establish supports to minimize DNBI, maintain readiness.
- Assist in keeping migrants and refugees healthy.
- Avoid embarrassment on the world stage - Media & VIPs.
- Provide military counterparts who can see the merits & limitations of NGOs in disaster assistance & refugee care.
- Place experts on site before problem grows out of control.

Field examples since 1994 where PM was consulted:

- Malaria cases in US Marines in Guantanamo Bay
- Varicella in Caribbean
- MNF in Haiti
- Meningitis in refugees
- TB cases repatriated to Haiti needing follow-up
- Air crewman coming down with P. falciparum malaria after serving in Sierra Leone

Preventive Medicine Resources

- Navy Environmental and Preventive Medicine and Disease Vector and Ecology Control Units
- Naval Medical Research and Development Detachments and Commands
- Marine Corps; PMT at Battalion / Environmental Health Officer at Wing, FSSG (Division level) EHO, Entomologist and 10 PMTs / MEF with PM Officer
- Army; Field Sanitation Team in Company with short course training, a Division has 2 PMTs, a Main Support Battalion with ESO, Senior NCO, PMTs, and, when augmenting with Professional Fill, a PMO
- Army Problem Definition Assessment Teams (staff, equipment, and supplies may vary with operation requirements)

Organic Preventive Medicine Supplies and Equipment

- Potable Water - Chlorine Level (Any PMT) / Fecal Coliforms tested at Division level
- Vector Control
- Sprayers – Backpack

- (Battalion) / Truck-mounted
- (Division) / C-130 Aircraft (not organic)
- Heat Stress WBGT - (Battalion) & Flag System (Navy/USMC) Army use categories

Team Personnel Components

- PMO / Infectious Disease Specialist to work with MTF / Entomologist(s) / Sanitarian (EHOs/ESOs) / Veterinarians (Army)

Common / Repeated Communicable Disease Threats

- Tuberculosis, upper respiratory infection, dermatology
- Malaria, Dengue, Leishmaniasis (vector-borne)
- Diarrheal diseases (mild viral to life-threatening)
- Meningococcal meningitis

Surveillance

- Standardized, consistent SYSTEM from the start of the operation.
- Regular, all-encompassing data collection, analysis, and feedback to the JTF Commander, Surgeon, and the medical chain of command.
- Determine where action(s) must be taken (e.g., outbreak investigations).

Laboratory Capabilities (Forward Deployed Lab, TAML)

- Deploying with a laboratory is a public health and readiness standard of care.
- Lab technician +/- Microbiologist and Virologist.
- Requirements: Malaria detection & speciation, microbial culture & sensitivity (resistance), TB smears, identification of parasites, sexually transmitted diseases, +/- Chem Bio.

Surveillance Essentials

- Encompassing every MTF (Special Forces, "Aid Bag" medical care, hand-carried meds may slip through).
- Centralized database tallies from Sunday through Saturday using basic categories ONLY.
- What will you actually DO with the data?
- Rapid Notifications (Dog bites, Varicella, Measles).
- Report and debrief rates, calibrate goals, forward data to

Surgeon, JTF staff, CINC, AFMIC, NEPMU, NEHC, CHPPM.

- Tool to show compliance with prevention efforts (e.g. food service sanitation, latrine maintenance maps).

Global Surveillance Initiative

- Bosnia deployment includes more comprehensive screening of personnel (most routinely done for deployable Navy and Marine Corps), serology sampling, established pre-deployment and post-deployment evaluations, and extensive environmental sampling.

Humanitarian Assistance

- Not what the US military does every day. It IS what NGOs do for a living.
- Personal risks for NGOs perceived as being "close" to the military.
- "Suprajoint" coalition with JTF, GOs, NGOs, all under the potential, continuous scrutiny of the world's media.
- Not every NGO has best interests of the U.S. at heart.
- Military most valued by NGOs for security, logistics, and communications capabilities, vice clinical care resources.
- No military "specialty" in humanitarian assistance, civil affairs staff are mostly reservists.

Migrant and Refugee Health Issues

- Single most important immunization is measles, and the vaccine requires a well-monitored cold chain.
- Keeping refugees healthy helps protect the JTF.
- Think: "Keep INPUTS away from the OUTPUTS."
- Potable water / waste disposal / vector control / immunizations and prophylaxis / simple shelter / medical waste / outbreak control / primary care / health screening.
- How will you handle: the disabled and chronic disease patients, HIV, HIV screening, cancer cases, tobacco policy, EPWs, medical providers from the refugee population, medical standard(s) of care, and...?

Rapid Disaster Assessment

- Who has information on the population (pre-disaster)?
- Where are they from, composition by age/sex, religious

- practices, health indices, immunization coverage, etc.?
- "Presidential" overfly (Defense Mapping Agency maps).
- Divide disaster area into 30 grids.
- Select household in each grid and sample it and six adjacent households.
- Establish brief questionnaire for each head-of-household and conduct interviews with the assistance of community health workers.
- Pilot test questionnaire on several households to work out glitches.
- Establish measure of effectiveness.
- Provide feedback and monitoring.

Turnover

All information obtained, including lessons learned (JULLs, MCLLs), surveillance data, points of contact, strip maps, methods of conducting theater surveillance, etc., should be pass-down items for the incoming team. Gitmo I was followed by Gitmo II...give your colleagues a break.

CALL PREVENTIVE MEDICINE EARLY & OFTEN

QUALITY ASSURANCE, RISK MANAGEMENT, AND CREDENTIALS

CAPT Adam Robinson, MC, USN
LT William Hatley, MSC, USN

Purpose. The purpose of the Shipboard Quality Assurance (QA), Quality Improvement (QI), and Risk Management Programs is to ensure that all our Sailors and Marines receive the highest quality of care available while deployed. The Credentials Program ensures that all our health care professionals are properly trained and qualified to carry out their assigned medical duties.

Discussion. The TYCOMs rely upon the Fleet Surgical Teams, Mobile Medical Augmentation Readiness Teams (MMART), and shipboard officers to carry out the provisions of references (a) through (h) and the management of the Shipboard QA/QI, Risk Management, and Credentials Programs. The Shipboard QA/QI and Risk Management Program consists of the following areas:

- a. medical readiness
- b. provider care: physician and non-physician
- c. inpatient nursing and provider care
- d. performance appraisal reports (PARS)
- e. AMMAL change proposals
- f. monthly QI meeting
- g. platform capability monitoring

Responsibility. The overall responsibility for the Shipboard QA/QI and Risk Management Programs resides with the TYCOM Medical Officer. When underway, the CATF Surgeon is responsible for implementing the QA/QI and Risk Management Program for the Amphibious Task Force. As such, the CATF Surgeon is responsible for:

1. Holding Monthly QA/QI Meetings while deployed. These meetings should be scheduled in port whenever possible to allow the fullest participation of all medical officers and Medical Department Representatives (MDRs).
2. Preparing and submitting Performance Appraisal Reports (PARS) on all embarked credential medical personnel practicing in the Ship's medical department. NOTE: this

includes MARFOR Medical Officers. PARs can be completed during the return to CONUS or homeport so the information is ready for the member's parent command. After completing PARs, forward them to the TYCOM via PHIBGRU Medical Officer.

3. Performing medical records review on IDCs assigned to the ARG on a monthly basis. IDCs require a 10% chart review, during which the physician preceptor will hold medical training of the Ship's IDCs. Quarterly, submit a summary of the IDC chart reviews to TYCOM Medical via PHIBGRU (Enclosure 1).
4. Performing Quarterly Medical record reviews of embarked medical officers. A summary of these reviews must be completed and forwarded to TYCOM medical via PHIBGRU (Enclosure 2).
5. During the monthly QA/QI meetings, conducting medical training for embarked medical officers and non-physician health care providers.
6. Ensuring that all patients seen by non-IDC HMs in a clinical area are reviewed and signed by a designated provider (MO, IDC, PA, NP, etc.) before leaving.
7. Ensuring that the Inpatient Nursing Care and Surgical Case reviews are completed. Identified discrepancies will be addressed and resolutions documented during the Monthly QA/QI meetings.
8. Documenting suggested changes to the Ship's AMMAL in the monthly QA minutes.
9. Completing and reviewing all Occurrence Screens, forwarding them to PHIBGRU for review and appropriate action. Forward all Level III/IV occurrences to the TYCOM Medical Officer for review and action.
10. Including the Platform Capabilities Monitoring in the monthly QA/QI Report after discussion in the monthly QI meeting. Areas of particular interest are changes or deletions of medical equipment and changes to the physical plant of the medical departments (i. e. SHIPALTS) that alter the department's capabilities.

Credentialing: The TYCOM Medical Officers are responsible for professional oversight of the Shipboard Credentials Programs. When embarked on the ARG, the CATF Surgeon is

responsible for reviewing the credentials of all embarked medical personnel and completing their PARs. Upon mobilization to a deploying platform, the member's parent activity is responsible for forwarding a Credential Transfer Brief to CINCLANTFLT Professional Affairs Coordinator (LANTFLT) or COMNAVSURFLANT (PACFLT) for approval of primary and special credentials before arrival. CINCLANTFLT/SURFPAC will forward approval of credentials to the ship and PHIBGRU.

References:

- (a) BUMEDINST 6230.66A
- (b) COMNAVSURFLANTINST 6320.1 series
- (c) COMNAVSURFPACINST 6000.2A
- (d) BUMEDINST 6010.13 series
- (e) CINCLANTFLT 6320.4 series
- (f) OPNAVINST 6400.1 series
- (g) COMNAVSURFLANT/PACINST 6000.1 series
- (h) CINCLANTFLT 6320.2 series

Reports:

File examples in your space as templates.

- (1) IDC Chart Review
- (2) IDC Quarterly Review Form
- (3) Physician Chart Review Form
- (4) Physician Quarterly Review Form
- (5) Inpatient Nursing Evaluation Form
- (6) Guidelines for Inpatient Nursing Eval Form Utilization
- (7) Inpatient Provider Evaluation Form
- (8) Performance Appraisal Report (PAR)
- (9) Nurse Corps Performance Appraisal Report
- (10) Quality Improvement Meeting Minutes Format Checklist and Worksheet
- (11) Occurrence Screen Report
- (12) Non-inclusive List of Special Occurrences

SHIP COMPARTMENT & DECK NUMBERING

Example: 3 - 127 - 2 - F

Every space on the ship is numbered to indicate its position in three dimensions and its primary use. The hyphens are stated as "tack". This location would be described as "three tack one-twenty-seven tack two tack foxtrot."

Deck Number: 3

The first part of the compartment designation is the deck number. When a compartment extends to the bottom of the ship, the number assigned to the bottom compartment is used. When the deck is above the main deck (usually given the unofficial "zero"), the prefix letter "O" is used; e.g., O-3 level for Flight Control, three levels above the flight deck.

Frame Number: 127

The second part is the frame number, working from bow to stern. A frame is a "rib" of a ship, standing athwartships. The frame number indicates how far back in the ship you are from the bow. Frame 127 is 127 ribs aft of the bow.

Relation to the Centerline: 2

The third part shows the relation to the centerline. Compartments on the centerline carry the number 0; those to **starboard** have **odd** numbers, and those to **port** have **even** numbers. The first compartment outboard of the centerline to starboard is 1, the second 3, and so on. (2, 4, etc., are used for the port side). In this example, the compartment is immediately to port of the centerline

Type of Compartment: F

The last part is the letter for the compartment's primary use. In this example, "F" indicates a fuel or oil storage space.

Compartment Type Codes:

A	Storage Space	L	Living Space
AA	Cargo Holds	M	Ammunition
C	Control	Q	Miscellaneous (galley, wiring trunks
E	Engineering	T	Trunks and Passages
F	Oil Stowage	V	Voids
J	Jet Fuel	W	Water
K	Chemicals and Dangerous Materials		

SHIPBOARD PROTOCOLS

From the Bluejackets Manual, experience, others
These shipboard protocols apply to all Naval Officers.

Reporting aboard the Ship. Walk up the Officer's Brow, salute the National Ensign, then the Officer of the Deck, and state "Request permission to come aboard." Show the OOD your Military ID and orders if first reporting aboard. The Ship's OOD will then grant you permission to come aboard. Note: In port, the National Ensign is flown from the stern of the ship from 0800 until sunset. When the Ensign is not flying, salute the OOD and request permission to come aboard.

Bridge. Ask permission from the OOD underway to enter the Bridge.

Departing the Ship. Go to the Officer's Brow and salute the OOD, showing your ID Card, and state "I have permission to leave the ship" (for Officers. Enlisted personnel would request permission). Step onto the brow and salute the National Ensign at the stern (0800 to sunset).

Smoking. Smoking is never permitted in the Wardroom or the Medical Department. As a general rule, smoking is allowed only in designated areas assigned by the CO.

Wardroom Etiquette.

1. The Wardroom normally has two sittings per meal. The first sitting is informal, and the second is the formal meal. If you are eating at the informal sitting, eat your meal and depart 15-30 minutes prior to the formal setting to allow the food service personnel time to set up for the formal meal. At the formal sitting, you must be in the designated Uniform of the Day. All personnel stand by their seats until the President of the Mess (the Ship's Executive Officer) says, "Take your seats." There is normally a prayer at every formal sitting. If you are late entering the formal meal, you must request permission to join the mess from the President of the Mess.
2. Don't loiter in the Wardroom in civilian clothes.

3. When joining a group of officers for dinner, it is customary to request permission to join them by asking the senior person present (e.g. "Good evening. May I join you?").
4. Visiting VIPs will be served either in the Flag Mess or in the Ship's Wardroom during the formal sitting. You may receive a formal invitation to dine at the formal sitting. It is customary to accept, unless you are on watch. Ensure that you respond to their invitation.
5. The Ship's Commanding Officer normally dines within the CO's mess. You may receive a formal invitation to join the CO for dinner from time to time. This is again in the Uniform of the Day.
6. Don't hesitate to ask your Line shipmates if you're unsure how to act. They'll help you learn, since they take the protocol and tradition quite seriously. If only out of courtesy, so should we.

Mess Bills. All officers must buy into the mess when reporting aboard. This is called your "Mess Share," but not all ships have this. The mess share is determined by the prorated cost of the mess inventory. The mess share changes monthly; however, it is often around \$50 per officer per month. When you report aboard, the S-5 Officer will explain when mess bills are due, usually between the 10th and 15th of the month.

Mess bills must be paid promptly. The Team Medical Administrative Officer should work with the Wardroom Officer to ensure that all mess bills are paid smartly. At the end of the deployment, you must pay your final mess bill and will be rebated your current "mess share". Remember that the mess share differs in port from at sea.

SHIPBOARD RESOURCE GUIDE

LT William Hatley, MSC, USN

The following is a brief listing of shipboard resources.

- A. **Administrative Assistance** - General and medical administrative issues should be resolved within your team. However, you may need additional assistance from time to time. The following personnel are good resources:
 - 1. MMART/FST Medical Administrative Officer
 - 2. Chief Staff Officer, PHIBRON
 - 3. PHIBRON Administrative Officer
 - 4. Ship's Executive Officer
 - 5. Ship's Administrative / Personnel Officer

- B. **Medical Evacuation** - To arrange a MEDEVAC, your Medical Regulating Officer will require the assistance of the following personnel:
 - 1. Commander Amphibious Task Force for information and approval (you discuss the case with the CATF)
 - 2. Chief Staff Officer (inform)
 - 3. PHIBRON Operations Officer
 - 4. Tactical Air Control Squadron OIC (arrange flight windows)
 - 5. Air Boss / Helicopter Direction Control Center - Controls spot where aircraft will land and priority
 - 6. CRTS Commanding Officer - Informed on all evacs coming to their unit. When directed by the CATF, the CO will direct the Navigator to close on a unit requesting assistance, as appropriate.
 - 7. CRTS Executive Officer. Inform early to simplify later arrangements.
 - 8. Ship's Operations Officer - Arrange appropriate boat transfer.
 - 9. Ship's Navigator - Identify location of unit requesting assistance.
 - 10. Ship's Medical Officer - Prepare medical spaces to receive the patient, and provide personnel to receive the patient on the flight deck or well deck.

- C. **Surgery** - Prior to performing any surgery, permission must come from:
 - 1. CATF (and CLF for the Marine Corps)
 - 2. Ship's Commanding Officer (through the Ship's Medical Officer)
 - 3. For any elective procedure, you must first obtain approval from the Ship's CO, the XO, and the appropriate Department Head and Division Officer.
- D. **Dental Care** - Dental care is provided by the Ship's Dental Officer. All dental records should be turned over to the Dental Department upon reporting on board. Contact Ship's Dental for their procedures upon arrival.
- E. **Supply Issues** - When embarked the following personnel will assist your Medical Admin Officer:
 - 1. PHIBRON Supply Officer - Helps obtain funding for special requirements.
 - 2. Ship's Supply Officer - Will order and receive supplies. The Ship's SUPPO also is in charge of the WARDROOM and berthing. This is coordinated with the PHIBRON CSO, N4, Combat Cargo Officer, or the Supply Officer. (Remember, all officers must join the Ship's Wardroom Mess and pay their mess share. See Shipboard Protocols.)
- F. **Electrical Safety** - The Ship's electricians must safety-check all electronic equipment prior to use. You can arrange this through the PHIBRON Engineer or through the Ship's Electrical Officer / E Division Chief.

DO NOT PLUG IN ANY ELECTRICAL EQUIPMENT UNTIL IT HAS BEEN SAFETY CHECKED AND TAGGED. (Electrical personnel won't hesitate to confiscate it).

SHIP TERMINOLOGY

The floor is the **deck**, the wall is the **bulkhead**, the ceiling is the **overhead** (except in a munitions locker, when it's the ceiling), the bathroom is the **head**, the bed is a **rack**, the stairs are a **ladder**, the hallway is a **passageway**. Try to use the starboard passageway to go forward and up, the port passageway to go aft and down.

ATHWARTSHIP: a line across the ship from side to side.

BOW: the forward part of a ship. To go in that direction is to go **FORWARD**.

CENTERLINE: an imaginary line running full length down the middle of the ship.

FANTAIL: the after part of the main deck.

FORECASTLE: the forward part of the main deck (pronounced "Foc'sle", with a long "o").

FREEBOARD: the area between the waterline and gunwale.

GO BELOW: to move from the main deck to a lower deck

GUNWALE: the upper edge of the side of a ship or boat

INBOARD: from either side toward the centerline

MAIN DECK: uppermost deck running the length of the ship from bow to stern. Anything below is **BELOW DECKS**. Anything above is the **SUPERSTRUCTURE**.

OUTBOARD: the direction from the centerline out toward either side.

PORT: the left side, facing forward.

QUARTERDECK: not a true deck or structural part of the ship, just a location designated by the CO as a place for ceremonies. Often the head of the brow in port.

STARBOARD: as you face forward on a ship, the right side.

STERN: after part of a ship. To go in that direction is to go **AFT**.

SUPERSTRUCTURE: all ship parts above the main deck.

TOPSIDE: going up from below decks to the main deck

TRANSOM: the transverse after-most part of any ship that has a square stern.

TRUNK: the part of a cabin above the upper deck.

TRIAGE CONCEPTS

CDR Dave Taft, MC, USNR

Triage is the process of sorting patients and classifying them in terms of relative urgency. It ensures that those who need treatment sooner receive it and that limited resources are not wasted on those who can be delayed with little harm or, more depressingly, who are certain to die. The ultimate goal as succinctly stated in the NATO Emergency War Surgery handbook¹ "is the return of the greatest number of soldiers to combat and the preservation of life and limb in those who cannot be returned." Do the most good for the greatest number with the assets available.

Triage requires difficult decisions and poses ethical and moral dilemmas for the uninitiated. Paradoxically, few in civilian life have practiced triage despite life-long careers in trauma care. Unfortunately, it is one of the few talents in combat casualty care that cannot be taught; in fact, it is learned only when needed, on the battlefield. After the conflict is over, it will not likely be used again.^{1,2} Most who write on triage have never witnessed it. However, "So important is the concept of triage to military medicine, that it needs to be consumed, regurgitated, and discussed at all levels, with as much input from as many sources as possible, and at regular intervals."²

Triage is essential because physicians accustomed to treating a maximum of only a few casualties at a time, even in a Level I Trauma Center, may face as many as 50 casualties but have limited personnel, supplies, time, and equipment.^{2,3} The environment may be hostile, due to climatic conditions or actual enemy fire. When many battle casualties present simultaneously, the logical rules of sorting and assigning patients to categories of care should be practiced as identically as possible at all levels dealing with a given casualty. If the rules are learned, it can be done. Learn the rules.

Who functions as triage officer? That person with the most experience should fill the position.^{2,4} This will almost invariably be the senior surgeon, who is best fitted with the understanding of the unique relationship between the causes and effects of trauma and its natural course over time. The

surgeon has a three-dimensional sense of anatomy and knows the length of time needed to repair the injury, what goes on in the operating room, and what may be an insurmountable surgical problem. The surgeon is used to making decisions crisply, acting on them with confidence. "In time of triage, the triage officer outranks the hospital commander, and this needs to be clearly understood by all involved, including particularly the commanding officer."²

These factors make the most experienced surgeon the logical choice for triage officer.

The triage officer must see all casualties as quickly as possible to size up the situation. The triage officer must stay alert to the major bottleneck in casualty care, which is OR availability. The triage officer must circulate through the operating rooms as well as the pre-op holding area to assess the efficiency of the process and to gauge the general sense of flow. Casualties may also require emergency treatment during triage.²

Remember, the triage officer must sort, not treat. To make correct decisions, the triage officer must maintain a global view by continually moving and updating perspective on the entire changing situation. If the focus narrows to specific treatment, the triage officer is likely to lose the wider perspective.

The casualties are young, for the most part, and will tolerate severe injuries with significant blood loss and still appear quite stable. They may crash without warning. Repeated triage is mandatory. Those at the litter giving specific care to the casualty are the best monitors of change; they must pass this information to the triage officer directly.

I. The NATO SYSTEM¹

This is the one most familiar to us and is fully described in the NATO Emergency War Surgery Handbook.

1. Urgent
2. Immediate
3. Delayed
4. Minimal
5. Expectant

II. THE THREE-TIERED TRIAGE CLASSIFICATION

Colonel Swan² prefers a simpler model and has written in detail about it. I think it should be used aboard ship as a preliminary triage technique. It effectively separates casualties needing physician-guided triage, but it requires frequent repeat triage of the walking wounded for significant injuries previously missed.

1. Dead
2. Walking Wounded
3. Those patients requiring physician-directed triage

III. THE FOUR CATEGORY CLASSIFICATION

This is a slightly simplified system that has worked well for me and was used in Vietnam. The items listed under the categories can be easily fitted into the five category NATO system.

1. IMMEDIATE

There is a high likelihood of survival in these severely injured patients. They need procedures of moderately short duration, but they must be done now! Urgent intervention is required to prevent death. Often these casualties represent short operative procedures with a good quality of life if successfully performed.

- a. Unstable chest and abdominal wounds
- b. Inaccessible vascular wounds with uncontrollable limb ischemia
- c. Mechanical airway obstruction
- d. Sucking chest wounds
- e. Tension pneumothorax
- f. Maxillofacial wounds with actual or potential airway compromise
- g. Internal hemorrhage unresponsive to large volume replacement
- h. Cardiac injuries
- i. Deteriorating CNS injuries
- j. Incomplete amputations
- k. Open fractures of long bones
- l. White phosphorus burns
- m. 2nd or 3rd degree burns of 15-40% (may be "delayed" in mass casualty situations)

2. DELAYED

This category of casualties can tolerate delay prior to operative intervention without compromising a successful outcome. When overwhelmed, these people are held until "Immediates" are cared for.

- a. Stable abdominal wounds, no hemorrhage
- b. Soft tissue wounds requiring extensive debridement
- c. Maxillofacial wounds without airway problems
- d. Vascular injuries with adequate collateral circulation
- e. Genitourinary disruptions
- f. Fractures requiring operative manipulation, debridement, and external fixation, without circulatory compromise
- g. Most eye and CNS injuries, except rapidly changing and deteriorating head injuries
- h. Time-consuming surgery
- i. Effects of delay minimized by stabilization

3. MINIMAL OR AMBULATORY

Get these out of the triage area rapidly; allow corpsmen and junior staff to take care of them. Make sure there are no serious underlying injuries to nerves or vessels.

- a. Superficial wounds requiring little more than cleaning and minimal debridement
- b. Burns < 15% (except face, hands, genitalia)
- c. Upper extremity fractures
- d. Sprains
- e. Abrasions
- f. Radiation injuries
- g. Blast injuries without obvious problems
- h. Psychiatric disturbances

4. EXPECTANT

Traditionally, medical personnel have difficulty categorizing patients as "Expectant" because, in normal circumstances, the full resources of available medical technology would be brought to bear and whatever heroic measures deemed necessary would be taken.⁶ When all "Immediate" and "Delayed" cases are completed, or when an "Expectant's" condition improves, then "Expectants" can be re-triaged, moved up to a higher category, and taken to the operating room.

- a. Wounds so extensive that, even if they were the only casualty in a stateside trauma hospital, survival would be unlikely.
- b. No treatment of complex or time-consuming cases, unless all other operative cases are completed and supplies are not a problem.
- c. While working on a casualty of this description, salvageable casualties may worsen, deteriorate, and possibly die.
- d. Consuming personnel or resource demands when these are at a premium.
- e. An unjustifiable use of the limited assets or supplies that might be applied to several less severely injured individuals.
- f. Experience is invaluable in making these determinations.
- g. These casualties should be separated from other casualties.
- h. They should be made comfortable by any reasonable means.
- i. Competent, sympathetic staff should attend them.

During Desert Storm, only a few days of experience was accumulated. Unfortunately, as I have noted above, learning triage requires substantive experience.

THE MECHANICS OF TRIAGE

Triage begins in the triage area with the triage officer in charge of all major decisions. The casualty is brought into the well-lighted, spacious triage area, without weapons or friends. The weapons are collected outside by Marine Security. Walking wounded are escorted to a separate "Minimal" casualty area; if serious injuries are found on examination there, they are moved back into the triage system. Litters are placed on stretcher supports of good height for working comfort and visibility. Each support will have a clipboard with a casualty record sheet or medical form attached to it. The treating physician can decide whether chest tubes are needed, tracheostomies required, and large bore IVs or subclavian lines are placed. Uniforms are removed, and the casualty is gone over, front and back, top to bottom, and this primary examination will likely be finished before the triage officer comes to the patient.

It is unlikely that a medical officer will be at each litter. The triage officer with a "scribe" at his side taking notes will quickly visit each casualty, receive vitals and the preliminary assessments from the corpsman / nurse / MO, and then do another exam, deciding which patients go to radiology (if there are film capabilities) and which go immediately to surgery. With advice from the team, the triage officer determines those patients to be removed to the expectant area and those to go to the pre-op holding area. If there are a large number of casualties, the triage officer may be better off not making any decisions except the very obvious ones before seeing all the casualties once.

The senior OR administration person (possibly an HM1), the radiologist (if you have one), and the anesthesiologists should be fed information from the circulating triage officer, returning information on problems they have observed or feel should be dealt with before surgery. The triage officer theoretically does not actively treat patients but merely sorts.² After reviewing all new arrivals, the triage officer revisits the expectant patients to make sure none have changed status. The triage officer may

change the status of any patient as OR rooms open or their condition changes.

Regardless of the opinions and ideas of others, the triage officer determines the priority of operative intervention. To avoid confusion and the "free-for-all" syndrome, it is key that one individual be in total command. As in all areas of combat casualty care, patients are re-triaged at each echelon of care. Ensure that minimal and expectant casualties do not enter the assessment and stabilization area. "The primary determinants of conventional triage sensitivity and specificity lie in the triage officer's experience, judgment, and intuition, and the ability to balance these shifting variables into the triage equation," states Burkle.⁷

Consideration must be given to the myriad problems brought on by nuclear, biological, and chemical weapons attacks. The most critical for triage is the proper decontamination of chemical casualties. With FMF units, this is a Marine Corps task. Aboard ship, the ship's company would activate one or more of the Decon treatment centers for appropriate decontamination of casualties, if not done ashore. Obviously, contamination of medical personnel, particularly those in key positions, could render medical units totally inoperative, so that it is imperative that it be properly done. Nuclear and biological warfare will not be dealt with here.

As CATF surgeons, consider setting up hanger deck triage, prior to going into the "good" triage area. Hanger deck triage could be divided into three major categories, identical to those described by Dr. Swan.²

1. The dead
2. Walking wounded
3. Those patients requiring physician-directed triage

Another problem you may encounter as a CATF Surgeon is the inability of some physicians to quickly equilibrate to less-than-ideal surroundings, equipment, and instruments. "I can't do my work like this and without this or that piece of gear," was a common complaint in the Persian Gulf. This may be somewhat compounded by MMART teams not yet oriented to their new "hospital." This is one time that I believe drills are

extremely important. I observed the 1995 version of Kernel Blitz aboard the USS Peleliu and was impressed favorably with most that I saw, but the Blue / Green split was obvious, and it was hard to tell who was really in charge. See if you can establish that early on.

As CATF Surgeons, it is your duty and privilege to establish your authority. Obviously you must establish rapport with your Blue Side counterpart, who may be a Lieutenant. Sometimes this can be a problem. The following few points are things I might want to establish as a CATF Surgeon.

- Insist on staff meetings integrating Blue and Green, which will foster a congenial atmosphere.
- As senior medical officer, it is your privilege to set policy, assign triage officers, and establish on-deck, well deck, and triage area policies.
- Mass casualty plans are drawn up and carried out by the CATF Surgeon, unless ashore, where the CLF Surgeon may take over.
- Coordinate Fleet Surgical Teams (no surgical subspecialists), MMART Teams if aboard, and Ship's Company. They WILL be friends with one another!
- Shipboard Medical is owned by and responsible to the vessel's Commanding Officer.

TRIAGE CRITERIA (NWP4-02.2)

Triage Sorting Category Codes: Four triage categories have been adapted for use by both US and NATO forces. These categories are defined as in STANAG No. 2879:

Immediate Treatment (Group T1)

The immediate treatment group includes patients requiring emergency life-saving surgery. These should not be time consuming and should concern only patients with high chances for survival, such as respiratory obstruction, accessible hemorrhage, and emergency amputation.

Delayed Treatment (Group T2)

The delayed treatment group includes patients badly in need of time-consuming major surgery, but whose general condition permits delay in surgical treatment without unduly endangering life. To mitigate the often-critical effects of delay in surgery, sustaining treatments—such as stabilizing IV fluids, splinting, administering antibiotics, performing catheterization and gastric decompression, and relieving pain—will be required. Examples are large muscle wounds, fractures of major bones, intra-abdominal and/or thoracic, head or spinal injuries, and uncomplicated major burns.

Minimal Treatment (Group T3)

The minimal treatment group includes patients with relatively minor injuries who can effectively care for themselves or receive care from untrained personnel (minor lacerations, abrasions, fractures of small bones, and minor burns).

Expectant Treatment (Group T4)

The expectant treatment group comprises patients having serious and often multiple injuries, requiring time-consuming and complicated treatment with a low chance of survival. If fully treated, these patients may make heavy demands on medical manpower and supplies. Until the mass casualty situation is under control, they will receive appropriate supportive treatment. The extent of treatment depends on available supplies and manpower and may involve the use of large doses of analgesics. These patients should not be abandoned and every effort made for their comfort. The possibility of their survival, despite alarming injuries, must always be considered. Examples include severe multiple injuries, severe head or spinal injuries, large doses of radiation, and widespread severe burns.

TRIAGE REFERENCES

1. Emergency War Surgery, NATO Handbook, Second United States Edition. 1988.
2. Swan KG, Swan KG Jr. Triage: the past revisited. Military Medicine. 1996; 161:448-52.
3. Griffiths H. A General Surgeon in Vietnam: Lessons Learned the Hard Way. Military Medicine. 1990; 155:228-31.
4. Sebesta D. Experience as the Chief of Surgery at the 67th Evacuation Hospital, Republic of Vietnam 1968 to 1969. Military Medicine. 1990; 155:227.
5. Rignault DP. How to Train War Surgery Specialists: Part II. Military Medicine. 1990; 155:143-47.
6. Kennedy K, Aghababian RV, Gans L, Lewis CP. Triage: techniques and applications in decision making [Review]. Annals of Emergency Medicine. 1996; 28:136-44.
7. Burkle FM Jr, Orebaugh S, Barendse BR. Emergency Medicine in the Persian Gulf War—Part 1: Preparations for Triage and Combat Casualty Care. Annals of Emergency Medicine. 1994; 23:742-47.
8. Burkle FM Jr, Newland C, Meister SJ, Blood CG. Emergency Medicine in the Persian Gulf War—Part 3: Battlefield Casualties. Annals of Emergency Medicine. 1994; 23:755-760.
9. Brillman JC, Doezema D, Tandberg D, Sklar DP, David KD, Simms S, Skipper BJ. Triage: limitation in predicting need for emergent care and hospital admission. Annals of Emergency Medicine. 1996; 27:493-500.
10. Adams DB. Improving Combat Casualty Care With a Triage Score. Military Medicine. 1988; 153:192-96.
11. Burkle FM Jr, Newland C, Orebaugh S, Blood CG. Emergency Medicine in the Persian Gulf War—Part 2. Triage methodology and lessons learned. Annals of Emergency Medicine. 1994; 23:748-54.
12. Walsh JT. Emergency Medicine in Combat Triage: A New and Needed Resource. Military Medicine. 1990; 155:187-89.
13. Bellamy RF. How Shall We Train for Combat Casualty Care? Military Medicine. 1987; 152:617-21.
14. Fleet Marine Force Manual 4-50, Health Service Support. 1990. U. S. Marine Corps.
15. Burkle FM Jr. Acute-phase mental health consequences of disaster: implications for triage and emergency medical services. 1996; Annals of Emergency Medicine 28:119-28.
16. Tinkoff GH, O'Connor RE, Fulda GJ. Impact of a two-tiered response in the emergency department: promoting efficient resource utilization. Journal of Trauma. 1996; 41:735-40.

VICTIMS & PERPETRATORS & ALCOHOL MISUSE

A recent study³ showed "...that a relatively high number of basic trainees enter naval service with histories of: (1) childhood physical abuse, (2) childhood sexual abuse, (3) adult physical and sexual victimization, (4) adult perpetration of physical and sexual aggression, (5) and alcohol misuse. Previous studies have shown that victims of abusive behavior are at high risk of incurring somatic and/or psychological problems that require treatment by health-care professionals. Untreated, the effects of traumatization may interfere with training and the performance of duty. Without intervention, perpetrators of both sexual and physical aggression are at a high risk of repeating their behavior. The significant levels of alcohol use / misuse among trainees may be related to their histories of victimization and place the trainees at greater risk of adverse somatic and psychological consequences. Alcohol misuse has been linked to ...aggressive behaviors, the vulnerability for victimization, and general negative behaviors."

"To ensure that trainees and other naval personnel receive an accurate diagnosis and treatment of their complaints, medical department personnel should be trained to detect and understand abusive behavior, its symptoms, and its effects on somatic and mental health. Further, the...present study suggest(s) the Navy and trainees would benefit if the following AMA recommendations were adopted: (1) routinely collect victimization histories... and (2) establish methods for referring victimized patients to education, treatment, and prevention programs. The exceptionally high levels of sexual aggression show an urgent need for the establishment of intervention programs for the prevention of sexual assault revictimization, the perpetration of sexual assault, and the misuse of alcohol."

³ [Report No. 95-26. Pre-Enlistment Maltreatment Histories of U.S. Navy Basic Trainees: Prevalence of Abusive Behaviors. LL Merrill, et al. Naval Health Research Center, San Diego, CA.](#)

WORLDWIDE WEB (WWW)

The Internet is a massive information resource. The sites listed below are a beginning guide to Navy and medical sites. It is to be expected that everyone will have their own favorite sites and will have their own preferences for information searching.

<http://www.navy.mil>
Navy Homepage

<http://www.navy.mil/nol/alpha.html>
Navy sites listed alphabetically

<https://bumed.med.navy.mil/>
BUMED

<http://navmedinfo.med.navy.mil/mfaclink1.htm>
Worldwide Navy Medical Facilities

<http://ldap.med.navy.mil/>
Navy Medicine Internet Phonebook

<https://directory.smartlink.navy.mil/cgi-bin/web500gw-2.1b3/nph-web500gw/>
Navy Online Locator

<http://www.vnh.org>
Virtual Navy Hospital, with online GMO Manual and commercial textbooks.

<http://www.nomi.med.navy.mil/index.htm>
Naval Operational Medicine Institute (access to Surface Warfare Medicine Institute)

<http://www.bupers.navy.mil/>
BUPERS

<http://www.dfas.mil>

DFAS (pay)

<http://www.ncts.navy.mil/navresfor/>
COMNAVRESFOR (AT opportunities, reserve instructions)

Other useful sites, in no obvious order:

<http://www.ncbi.nlm.nih.gov/PubMed/>
Free searching of the National Library of Medicine.

<http://www.lib.uiowa.edu/hardin/md/idx.html>
Hardin Meta Directory of Internet Health Sources. An impressive amount of work, and a terrific resource. This site is a guide to medical sites around the world, ordered by topic, and updated daily. Worth a long look in order to understand the scope of the resources.

<http://www.cdc.gov>
The Centers for Disease Control in Atlanta, with most of their important material.

<http://coe-dmha.org/website/index.htm>
Center for Excellence in Disaster Management, a humanitarian assistance organization.

<http://www.reliefweb.int/w/rwb.nsf>
ReliefWeb, a United Nations site for monitoring humanitarian crises worldwide.

<http://www.po.com>
Physicians Online, a free membership service with a number of useful features.

<http://www.swos.navy.mil/>
Surface Warfare Officer School. Most curriculum online. Valuable for SWMDO qualifications.

<http://www.vlib.org/>

The Web Virtual Library. An orderly and intelligent guide to hundreds of pages.

<http://www.vh.org/>

The Virtual Hospital. Very useful in keeping clinically sharp. A good collection of case presentations, and a wealth of other medical material.

<http://www.ama-assn.org>
American Medical Association

<http://www.nimh.nih.gov/>
National Institute of Mental Health

<http://www.promedmail.org/pls/promed/promed.home>
ProMed Mail. The Program for Monitoring Emerging Diseases. Reports from all over the world.

<http://www.nytimes.com/library/national/science/health/health-navigator.html>
New York Times Health Navigator. Health links used by journalists at the New York Times.

<http://www.pbg.mcgraw-hill.com/medical/lange/cmdt/index.html>
Online companion links for more information on topics in Current Medical Diagnosis and Treatment, by McGraw-Hill.

FLEET MEDICINE TELEPHONE LIST

Numbers change. Accuracy checked, but not guaranteed.

Location	Voice
ACU-4 (Little Creek LCACs).....	(757) 462-7004
ACU-5 (Camp Pendleton LCACs).....	(760) 725-0653
AFMIC Operations	(301) 619-7574
AHFS Drug Information.....	(301) 657-4383
American Medical Association	(312) 464-5000
Member Services	(800) 262-3211
Appleton-Lange Publications	(800) 262-4729
Armed Forces Institute of Pathology	(202) 782-2100
Armed Services Blood Program.....	(703) 681-8024
Armed Services Whole Blood Processing Lab	
East Coast	(609) 724-2442
West Coast.....	(707) 423-3451

BUMED Aerospace Medicine	(202) 762-3456
BUMED Career Plans	(202) 762-3069
BUMED Dental Corps	(202) 762-3005
BUMED Deputy Chief	(202) 762-3702
BUMED Education, Training, Personnel	(202) 762-3368
BUMED Expeditionary Medicine.....	(202) 762-3425
BUMED Force Master Chief.....	(202) 762-3032
BUMED GMO Policy and Plans	(202) 762-3064
BUMED Legal	(202) 762-3080
BUMED Marine Corps Medicine	(703) 614-4477
BUMED MSC	(202) 762-3050
BUMED Nurse Corps	(202) 762-3040
BUMED Operational Medicine	(202) 762-3460
BUMED Prev Med & Occ Health.....	(202) 762-3496
BUMED Public Affairs	(202) 762-3218
BUMED Readiness	(202) 762-3425
BUMED Special Pays	(202) 762-3357
BUMED Surf Med	(202) 762-3466
BUMED Surgeon General	(202) 762-3701
BUPERS Medical Placement	(901) 874-4114
BUPERS Promotions	(901) 874-3252
Centers for Disease Control and Prevention.....	(800) 311-3435
Center of Excellence, Disaster Management and HA (CHART)....	(808) 433-7035
CINCLANTFLT - Medical	(757) 444-6074
CINCPACFLT - Medical	(808) 471-0752
CNO Medical Resource Plans & Policy.....	(703) 601-1700
Combat Casualty Care Course, San Antonio.....	(210) 221-9525
Combat Casualty Care Course, Washington	(301) 295-3812
COMNAVSURFLANT Medical TYCOM	(757) 322-3078
COMNAVSURFPAC Medical TYCOM	(619) 437-2649
Deaths, BUPERS Casualty Assistance Branch	(800) 368-3202
Department of Defense - Public Affairs.....	(703) 697-5737
Department of State - Medical Director.....	(202) 647-3484
Detailer, Medical	(901) 874-4094, DSN 882-4094
Expeditionary Warfare Training Group, Atlantic.....	(757) 363-4504
Expeditionary Warfare Training Group, Pacific.....	(619) 437-2230
Medical	(619) 437-3225
Fleet Hospital Operations and Training Command	(760) 725-7121
Fleet Surgeon, 2 nd	(757) 445-0152
Fleet Surgeon, 3 rd	(619) 524-9541
Fleet Surgeon, 5 th	011-973-724-557, DSN 318-439-4557
Fleet Surgeon, 6 th	(757) 836-2500 ext 6041, +39 0771 709-605
Fleet Surgeon, 7 th	DSN 243-9041 (Yokosuka) 453-9041 (Underway POTS)
Fleet Surgical Teams 1, 3, 5, 9: PHIBGRU3.....	(619) 556-1465
Fleet Surgical Teams 2, 4, 6, 8: PHIBGRU2.....	(757) 464-8554
Fleet Surgical Team 7: USS ESSEX.....	(808) 653-3330
Global Patient Movement Requirements Center.....	(800) 874-8966
Henry M. Jackson Foundation.....	(301) 424-0800
Special Projects	(301) 294-1226
I MEF Medical - Camp Pendleton	(760) 725-9158
II MEF Medical - Camp Lejeune.....	(910) 451-8862
III MEF Medical - Okinawa	011-81-611-722-7331
Jane's Information Group (Jane's Fighting Ships).....	(800) 824-0768

Joint Chiefs of Staff, Public Affairs Office (703) 693-5100
 LCAC Medical Affairs (619) 553-0097
 Maps: A World of Maps (GSA map source) (800) 226-2771
 Marine Corps Casualty Assistance (703) 784-9512
 Marine Corps Headquarters (703) 614-1328
 Matthew's Medical and Scientific Books (800) 633-2665
 Med 27 (includes MMARTs) (202) 762-3425
 Medical Letter (914) 235-0500
 Military Sealift Command (202) 685-5155
 MMART (202) 762-3428
 Multi-Lingual Interview System (computer translator) (850) 452-3385
 National Institutes of Health (301) 496-4000
 National Library of Medicine, Director's Office (301) 496-6221
 Public Information (800) 272-4787
 Grateful Med (800) 423-9255
 Naval Institute Press (800) 233-8764
 Naval Medical Center - Bethesda (301) 295-4611
 Naval Medical Center - Portsmouth (757) 953-5008
 Naval Medical Center - San Diego (619) 532-6400
 Naval Medical Information Management Command (NMIMC) (301) 319-1032
 Naval Medical Logistics Command (301) 619-2157
 Naval Medical Research Center (301) 295-0283
 Naval Operational Medicine Institute (NOMI) (850) 452-4554
 Hyperbaric Chamber (850) 452-3297
 Naval School of Health Sciences, Bethesda (301) 295-1251
 Naval School of Health Sciences, Portsmouth (757) 953-5040
 Naval School of Health Sciences, San Diego (619) 532-9712
 Naval Undersea Medical Institute (860) 694-2874, DSN 241-2877
 Naval Warfare Development Command (757) 445-0567
 Navy Blood Program, BUMED Code 273 (202) 762-3438
 Navy Federal Credit Union - Pacific (800) 842-6328
 Navy Federal Credit Union - Atlantic (800) 336-3333
 Navy Placement (901) 874-4101
 Navy Relief (703) 696-1481
 Navy Uniform Board (703) 614-5075
 NTIC, Naval Tactical Information Command CD-ROM (202) 433-3678
 PHIBGROUP 1 - Okinawa (Medical) 011-81-6117-42-2213
 PHIBGROUP 2 - Atlantic (Medical) (757) 464-8554
 PHIBGROUP 3 - Pacific (Medical) (619) 556-1465
 PKC Corporation (medical decision software) (802) 658-5351
 Seventh Fleet DSN 642-2225
 Sixth Fleet (757) 444-6500, (757) 445-6800
 SPAWAR (619) 524-7012

Specialty Advisors

Aerospace (202) 762-3451	Dermatology (757) 953-0312
AFIP Matters (202) 782-2111	Diagnostic Rad (619) 532-8724
Allergy/Immunology (619) 532-8127	Emergency Med (619) 532-8275
Anesthesia (850) 505-6203	Endocrinology (301) 295-5165
Cardiology (619) 532-7428	ENT (619) 532-9604
CV Surgery (619) 532-9140	Family Practice (360) 475-4345
Critical Care (301) 295-4217	Fleet Marine Force (703) 614-4478

Gastroenterology ...	(757) 953-2003	Orthopedics ..	011 81 611 475 4213
General Medicine...	(202) 762-3064	Osteopathic Med....	(910) 451-8866
Heme/Onc.....	(619) 532-7303	Pediatrics.....	(619) 532-6920
Infectious Disease .	(619) 532-7475	Physical Medicine...	(757) 953-1410
Internal Medicine ...	(757) 953-1682	Plastic Surgery	(757) 953-2882
Interns.....	(301) 295-6100	Pre-Hospital Care...	(757) 398-5064
Laboratory Med	(757) 953-1682	Psychiatry	(619) 532-8563
Medical Students...	(301) 295-1217	Rheumatology.....	(619) 532-7504
Neonatology.....	(619)532-8266	Sports Medicine.....	(703) 784-1502
Nephrology	(619) 532-8840	Surface Medicine....	(202) 762-3466
Neurology	(757) 953-2114	Surgery.....	(301) 295-3881
Neurosurgery	(757) 953-2243	Therapeutic Rad....	(619) 532-8175
Nuclear Medicine ...	(757) 953-1118	Tropical Medicine ...	(301) 295-3170
OB/GYN	(202) 356-0827	Undersea/Diving	(202) 762-3444
Occupational Med..	(202) 762-3496	Urology	(301) 295-4263
Ophthalmology.....	(619) 532-6702		
State Department - Bosnia Desk.....	(202) 647-0608		
Surface Warfare Development Group	(757) 464-7942		
Surface Warfare Medicine Institute (SWMI).....	(619) 553-0097		
Telemedicine Programs (CAPT Bakalar)	(301) 319-1327		
US Atlantic Fleet Surgeon	(757) 322-5256		
US Central Command Surgeon	(813) 828-6397		
US European Command Surgeon	011-49-711-680-5374		
US Joint Forces Command Surgeon	(757) 836-6375		
US Naval Forces, Europe, Surgeon	011-44-71-409-4774		
US Pacific Command Surgeon	(808) 477-7882		
US Pacific Fleet Surgeon	(808) 474-6341		
US Southern Command Surgeon	011-507-282-5805, DSN 313-282-5805		
US Space Command Surgeon	(719) 554-3311		
US Special Operations Command Surgeon.....	(813) 828-5442		
US Strategic Command Surgeon	(402) 294-4132		
US Transportation Command Surgeon.....	(618) 256-2895		
Uniforms, Navy Uniform Support Center.....	(800) 368-4088		
UPS Sonic Air Same Day Delivery.....	(800) 451-4550		
UPS toll-free.....	(800) 742-5877		
USAA Insurance.....	(800) 531-8111		
USUHS - Main number	(301) 295-3030		
Dean's Office	(301) 295-3016		
Military Medicine	(301) 295-3720		
Walter Reed Army Institute of Research.....	(202) 782-3551		

Overseas Commands

Location	Voice
Azores - Lajes	011-351-95-540-100-23610, DSN 535-3610
Belgium - Brussels	011-32-27-31-6890, DSN 365-9406
Belgium - SHAPE	011-32-65-445820, DSN 423-5820
Cuba - Guantanamo.....	011-5399-72360, DSN 564-4073 x72360
Egypt - Cairo	011-202-284-1381
Eng - Lakenheath	011-16-3852-4188, DSN 314-226-6045
Eng - London	011-441-895-616742, DSN 235-6742
Ger - Bad Aibling	011-49-8061-803851, DSN 441-3851

Ger - Bad Kreuznach	011-49-671-792-710, DSN 490-5710
Ger - Bamberg	011-49-951-300-1750, DSN 469-1750
Ger - Baumholder	011-49-6783-66365, DSN 485-6365
Ger - Dexheim	011-49-6133-69866, DSN 334-5866
Ger - Geilenkirchen	011-49-2451-65359
Ger - Frankfurt	011-49-69-1541-7555, DSN 325-7555
Ger - Heidelberg	011-49-6221-172605, DSN 371-2605
Ger - Kaiserslautern	011-49-631-411-8464, DSN 483-8464
Ger - Landstuhl	011-49-6371-86-8107, DSN 486-8107
Ger - Pirmasens	011-49-6331-876, DSN 495-7166
Ger - Ramstein	011-49-6371-47-2476, DSN 314-480-2476
Ger - Spangdahlem	011-49-656-169-3195, DSN 314-453-3195
Ger - Wiesbaden	011-49-611-705-6320, DSN 337-6320
Ger - Wurzburg	011-49-931-804-3861, DSN 350-3861
Greece - Souda Bay	011-30-821-66200 x1590, DSN 266-1590
Guam - Agana	011-671-344-9340, DSN 344-9340
Guam - Andersen AB	011-671- 366-4270, DSN 315-366-4270
Iceland - Keflavik	011-354-425-3300, DSN 450-3300
Indonesia - Jakarta	011-62-21-420-7854
Italy - Aviano	011-39-434-66-7387, DSN 314-632-7387
Italy - Gaeta	011-39-771-709-751, DSN 625-7751
Italy - Lamaddalena	011-39-789-798-275, DSN 623-8275
Italy - Livorno/Leghorn	011-39-5054-7357, DSN 633-7357
Italy - Naples	011-39-81-724-4872, DSN 625-4872
Italy - Sigonella, Sicily	011-39-95-56-4842, DSN 624-4842
Italy - Vicenza	011-39-444-51-7787, DSN 634-7787
Japan - Atsugi	011-81-467-76-6513, DSN 264-3951
Japan - Iwakuni	011-81-611-753-5571, DSN 253-5571
Japan - Kadena	011-81-611-734-1806, DSN 315-634-1806
Japan - Misawa	011-81-3117-66-3506, DSN 226-3506
Japan - Okinawa	011-81-611-742-2378, DSN 642-2378
Japan - Sasebo	011-81-956-24-3791, DSN 252-3791
Japan - Yokosuka	011-81-311-743-7144, DSN 243-7144
Japan - Yokota	011-81-3311-7553600, DSN 315-226-3600
Korea - Chinhae	011-82-553-40-5415, DSN 762-5415
Korea - Kunsan	011-82-654-470-4563, DSN 315-782-4563
Korea - Osan	011-82-333-661-2002, DSN 315-784-2001
Korea - Seoul	011-822-7916-8400, DSN 737-5213
Korea - Yongsan	011-822-7917-55161
Panama - Ft. Clayton	011-507-87-3707
Panama - Howard AB	011-507-284-4649, DSN 284-5587
Panama - Panama City	011-507-282-5100, DSN 282-5100
Peru - Lima	011-511-452-1560
Philippines - Manila	011-632-838-4566, 011-632-523-1001
Puerto Rico - Roosevelt Roads	(787) 865-5767, DSN 831-5767
Scotland - Edzell	011-01-356-647-365
Spain - Rota	011-3456-82-3305, DSN 727-3305
Turkey - Incirlik	011-90-322-316-6820, DSN 314-676-6820
Travel	American Airlines & American Eagle
American Express .. (800) 492-4922 (800) 433-7300
Amex Travel	(850) 453-5053
Amtrak	(800) 872-7245
Airlines	British Airways
	(800) 247-9297
	Continental
	(800) 231-0856
	Delta Airlines
	(800) 221-1212

Baggage (800) 325-8224
Northwest KLM (800) 225-2525
Sabena Belgian (800) 955-2000
Tapia Portugal (800) 221-7370
US Airways (800) 428-4322
United (800) 241-6522

Car Rentals

Alamo (800) 327-9633
Avis (800) 831-2847
Dollar (800) 800-4000
Enterprise (800) 325-8007
Hertz (800) 654-3131

National (800) 227-7368
Sears (800) 527-0770
Thrifty (800) 367-2277

Hotels

Clarion (800) 252-7466
Comfort Inn (800) 228-5150
Dragon Hill (Seoul, Korea)
.....DSN 315-723-1011
Econo Lodge (800) 553-2666
Hale Koa (Military, Waikiki, Hawaii)
..... (800) 367-6027
Hampton Inn (800) 426-7866
Hilton (800) 445-8667
Howard Johnson ... (800) 446-4656
Hyatt (800) 233-1234
La Quinta (800) 531-5900
Marriott (800) 321-2211
Navy Lodge (800) 628-9466
Quality Inn (800) 228-5151
Ramada (800) 228-2828
Sheraton (800) 325-3535