

Joint Pub 4-02.2



Joint Tactics, Techniques and Procedures for Patient Movement in Joint Operations



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PREFACE

1. Scope

a. This publication delineates requirements and considerations for joint patient movement in the Health Service Support (HSS) system as well as HSS aspects of joint patient movement planning, special operations, and military operations other than war. The doctrine described applies to the exercise of command and control by joint force commanders engaged in all types of operations and exercises.

b. Where specific tactics, techniques, and procedures for HSS are not addressed in this publication, they can be found in Service HSS documents.

2. Purpose

This publication has been prepared under the direction of the Chairman of the Joint Chiefs of Staff. It sets forth doctrine and selected joint tactics, techniques, and procedures (JTTP) to govern the joint activities and performance of the Armed Forces of the United States in joint operations and provides the doctrinal basis for US military involvement in multinational and interagency operations. It provides military guidance for the exercise of authority by combatant commanders and other joint force commanders and prescribes doctrine and selected tactics, techniques, and procedures for joint operations and training. It provides military guidance for use by the Armed Forces in preparing their appropriate plans. It is not the intent of this publication to

restrict the authority of the joint force commander (JFC) from organizing the force and executing the mission in a manner the JFC deems most appropriate to ensure unity of effort in the accomplishment of the overall mission.

3. Application

a. Doctrine and selected tactics, techniques, and procedures and guidance established in this publication apply to the commanders of combatant commands, subunified commands, joint task forces, and subordinate components of these commands. These principles and guidance also may apply when significant forces of one Service are attached to forces of another Service or when significant forces of one Service support forces of another Service.

b. The guidance in this publication is authoritative; as such, this doctrine will be followed except when, in the judgment of the commander, exceptional circumstances dictate otherwise. If conflicts arise between the contents of this publication and the contents of Service publications, this publication will take precedence for the activities of joint forces unless the Chairman of the Joint Chiefs of Staff, normally in coordination with the other members of the Joint Chiefs of Staff, has provided more current and specific guidance. Commanders of forces operating as part of a multinational (alliance or coalition) military command should follow multinational doctrine and procedures ratified by the United States. For

doctrine and procedures not ratified by the United States, commanders should evaluate and follow the multinational command's doctrine and procedures, where applicable.

For the Chairman of the Joint Chiefs of Staff:



DENNIS C. BLAIR
Vice Admiral, US Navy
Director, Joint Staff

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EXECUTIVE SUMMARY COMMANDER'S OVERVIEW

- **Addresses the Fundamental Principles of Patient Movement**
 - **Describes the Echelons of Patient Care**
 - **Characterizes the Concepts of Joint Patient Movement Operations**
 - **Covers Intratheater and Intertheater Patient Movement Operations**
 - **Discusses the Concepts Unique to Special Operations Patient Movement**
 - **Describes Patient Movement for Military Operations Other Than War**
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Fundamentals of Patient Movement

A proactive patient movement system combined with echelons of care can lead to a successful health service support (HSS) patient movement mission.

The **health service support (HSS) patient movement mission** in joint operations is designed to minimize the effects of wounds, injuries, and disease on unit effectiveness by the rapid evacuation of injured personnel. This mission is accomplished by a **proactive patient movement program** and a **phased health care system (echelons of care)**. A measure of the effectiveness of this system is its ability to save life and limb and to evacuate and quickly return patients to duty.

Echelons of Patient Care

The five echelons of care are the backbone of the HSS system.

The echelons of patient care encompass a system of **progressively capable HSS assets starting on the battlefield and stretching rearward through the continental United States (CONUS)**. Patient movement and the five echelons of care contribute to minimizing the effects of wounds, injuries, and disease by providing patient access to a gradually increasing series of clinical capabilities. The five echelons of care are supported by the patient movement system and are the **backbone of the HSS system**.

Patient Evacuation

Patient evacuation is performed by the next higher echelon of care going forward and evacuating rearward.

The process of **determining the categories of evacuation precedence** (urgent, priority, routine) will determine how quickly a patient will be evacuated within the patient movement system. It is determined at the originating facility and may be upgraded or downgraded at each succeeding echelon of patient care. The **theater evacuation policy** states the number of days a patient may be held in theater for treatment. Patients who cannot return to duty within the specified number of days are evacuated. Normally, the evacuation policy is seven (7) days for the combat zone and a combined total of fifteen (15) days for the combat zone and the communications zone. **Medical regulating** entails identifying patients requiring medical care beyond that which is available at their present location, locating and assigning a patient to a hospital with appropriate capability, and coordinating the transportation means for movement. Prior to **patient evacuation**, patients will be stabilized within the limitations of the originating medical treatment facility's (MTF's) capability.

Joint Patient Movement Operations

The patient movement system operates worldwide to regulate all Service component patient movements.

The **integration of the joint force commander's (JFC's) concept of operations with joint and Service capabilities** is essential in joint HSS planning. Planning ensures a coordinated effort in providing timely and effective patient movement which involves route planning, movement control, and locating appropriate medical treatment facilities. All available forms of transportation must be considered within the constraints of the tactical situation and the details of patient handling.

Patient movement is a system that involves the coordinated use of intratheater and intertheater evacuation assets.

The **patient movement system** is in support of patient regulating decisions made by medical personnel. It is designed to **coordinate the movements of patients** from site of injury or onset of disease, to appropriate echelons of medical care, to an MTF that can provide definitive care. The patient movement system **operates worldwide to regulate all Service component patient movement** and is supported by the following: Global Patient Movement Requirements Center, US Transportation Command (USTRANSCOM), aeromedical evacuation coordination center, theater patient movement requirements centers, joint patient movement teams, Defense Medical Regulating Information System, in-transit visibility, and Service component evacuation assets.

Intratheater Patient Movement Operations

The goal of intratheater patient movement operations is to best meet a patient's medical needs quickly and efficiently using intratheater resources.

Intratheater patient movement uses theater resources to evacuate patients to and between medical treatment facilities within a theater of operations. Intratheater patient movement requires a coordinated effort between Service, host-nation MTFs, and Service component organic and theater evacuation assets. The **joint force surgeon** is responsible for developing intratheater patient movement policies in coordination with Service component evacuation representatives. The **component commands** are responsible for patient evacuation from point of injury to echelon 1 (E1) patient treatment stations and patient movement from E1 to echelon 2 (E2) via dedicated, designated, or opportune ground or air transportation. Patient movement within and from E2 is normally a **Service component** responsibility and usually occurs along established routes of evacuation. However when this is not possible, use of common-user theater aeromedical evacuation (AE) aircraft for the movement of patients from E2 to echelon 3 (E3) and beyond is executed according to medical regulating principles and practices, and is preplanned and coordinated by the JFC through the joint force surgeon. These operations may include the use of Air Force mobile aeromedical staging facility teams, Air Force preconfigured aircraft which are equipped and staffed for en route care. Some joint operations may present unique situations where an E3 medical infrastructure does not exist and stabilized patients may be evacuated directly to echelon 4 (E4) MTFs in another theater or CONUS. Patient movement support of **theater medical regulating decisions** will be accomplished using dedicated (USA/USAF), preplanned and retrograde (USAF), opportune or designated (USN/USMC) airlift, and may include the use of ground or waterborne assets.

Intertheater Patient Movement Operations

Intertheater patient movement requires coordinated efforts between Service or host-nation military treatment facilities, aeromedical evacuation elements, patient movement requirements centers, and transportation agencies.

Intertheater patient evacuation is usually supported by USTRANSCOM airlift resources. Intertheater patient movement operations may serve as the interface between the theater and CONUS patient movement systems. **Intertheater AE** is controlled by the Tanker Airlift Control Center. The transferring MTF is responsible for the transportation of patients between the MTF and the aerial port of embarkation. USTRANSCOM Air Mobility Command dedicated, preplanned, opportune, or retrograde aircraft missions are executed to pick up patients from staging facilities at designated theater AE interface airfields.

Command, Control, Communications, and Computers

A responsive command, control, communications, and computer system is essential to the conduct of patient movement.

It is essential to establish an **integrated system for patient movement operations**. The degree of success of such operations is a function of the availability of reliable communications over interoperable systems. **JFCs will establish a system** that integrates the available capabilities of the patient movement system, synchronizes their application, and prepares to employ air, land, and sea forces to achieve patient movement objectives.

Special Operations Patient Movement

The nature and requirements of patient movement during special operations is quite different from other patient movement operations.

The challenge for the medical planner is to **provide patient movement without the benefits of an organic health care structure and dedicated medical evacuation assets** available to the conventional force. **Special operations forces (SOF) lack a dedicated patient movement system and the ability to perform E3 and E4 level care**. Special operations missions may be conducted forward of the forward line of own troops in sensitive or denied areas beyond conventional HSS medical support operations. To overcome the absence of a dedicated patient movement system, SOF personnel receive **enhanced medical training**.

Military Operations Other Than War

Military operations other than war (MOOTW) encompass use of military capabilities for any purpose other than war.

Military operations other than war (MOOTW) consist of 16 representative types of operations, including noncombatant evacuation operations, combating terrorism, peace operations, enforcing exclusion zones, civilian assistance programs and other uses of military capabilities across the range of military operations (See Joint Pub 3-07 for complete list). As with any military requirement, **medical forces are tailored to meet the specific needs of each type of MOOTW**. Due to the limited number of MTFs available for worldwide operations, commanders may use a point-to-point patient movement system from a single evacuation site to a predesignated reception hospital in another theater or in CONUS. Throughout the evacuation process, medical attendants and medical resources must be protected, and patient stability is paramount. MOOTW AE employment consists of a medical infrastructure commensurate with E3 and E4 capabilities and the same type of resources used in wartime.

HSS resources supporting MOOTW will normally be evacuating patients rearward for definitive care.

The **Theater Patient Movement Requirements Center** will be designated in the supporting operation plans to **coordinate all common-user patient movement with the Joint Movement Center**. The limited nature of a MOOTW normally dictates asset selection to provide **“forward” medical care**. Use of host-nation resources depends on the location of the operation.

CONCLUSION

This publication describes requirements and considerations for joint patient movement in the health service support system. It provides guidance for the planning and execution for joint patient movement across the range of military operations (war and military operations other than war), including special operations.

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CHAPTER I

FUNDAMENTALS OF PATIENT MOVEMENT

“Pay every attention to the sick and wounded. Sacrifice your baggage, everything for them. Let the wagons be devoted to their use, and if necessary your own saddles...”

Napoleon I

1. Mission

The health service support (HSS) patient movement mission in joint operations is designed to **minimize the effects of wounds, injuries, and disease** by the **rapid evacuation** of ill and injured personnel. This mission is accomplished by a **proactive patient movement program** and a **phased health care system** (echelons of care) that extends from action taken at the point of wounding, injury, or illness through evacuation from a theater for treatment at a hospital in the continental United States (CONUS). One measure of this system’s effectiveness is in its ability to **save life and limb** and to **quickly evacuate**.

2. Fundamentals of Patient Movement

a. Echelons of Patient Care

- The **movement of patients from one level of treatment to another for more definitive treatment, or between and within levels of treatment**, requires in-depth planning, adequate resourcing, and skillful execution. Echelons of patient care allow health care providers to make decisions relating to a patient’s disposition, timely treatment, and subsequent hospitalization based on the availability of transportation to move the patient to more definitive care. Patient movement therefore contributes to minimizing the effects of wounds, injuries, and disease by making **planned patient movement** and the **five echelons**

of care that comprise the HSS system available to the patient.

- **The five echelons of care and patient evacuation flow for all Services** (shown in Figure I-1) are supported by the patient movement system and **are the backbone of the HSS system**, extending from the point of wounding, injury, or illness, through the area and/or theater of operations (AO/TO) to CONUS. Each succeeding echelon of care possesses the same treatment capabilities as those forward of it and adds a new increment of treatment capability distinguishing it from the previous echelon.

- **Echelon 1 (E1)**. Care is rendered at the unit and includes **self aid and buddy aid care, examination, and emergency lifesaving measures** such as maintenance of airway, control of bleeding, prevention and control of shock, and prevention of further injury. This echelon of care may include an aid station that has a physician, physician assistant, and/or medical officer (MO). The elements of medical care and management available at this level of care prepares patients for return to duty (RTD) or evacuation to a higher echelon of care.

- **Echelon 2 (E2)**. As a minimum, E2 care includes **basic resuscitation and stabilization** and may include limited surgical capability, basic laboratory, pharmacy, and temporary holding facilities. **Surface or air evacuation to**

ECHELONS OF CARE/PATIENT EVACUATION FLOW FOR ALL SERVICES

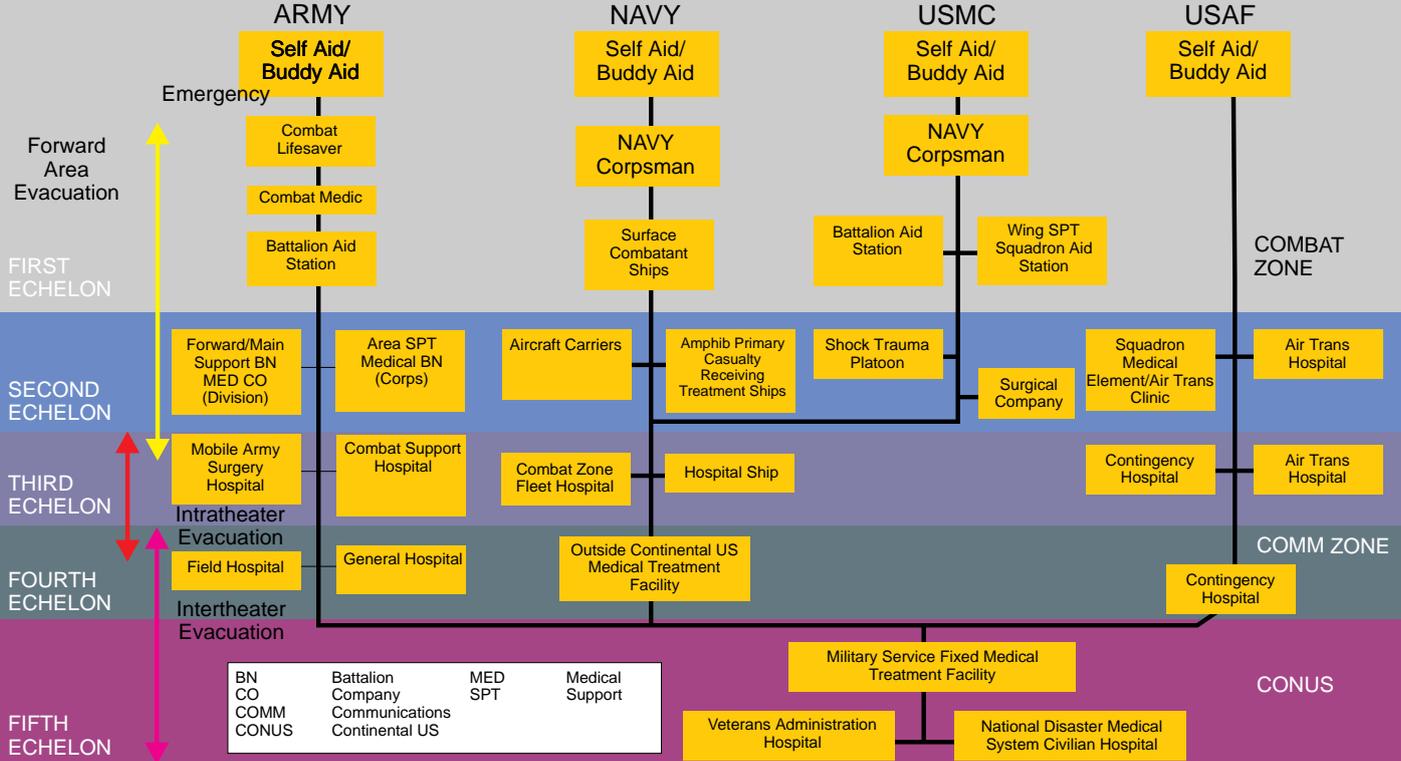


Figure I-1. Echelons of Care/Patient Evacuation Flow for All Services

a **medical treatment facility (MTF)** would be utilized for patients who require more comprehensive treatment.

•• **Echelon 3 (E3).** Care administered at E3 requires **clinical capabilities normally found in an MTF** staffed, equipped, and located in a lower level threat environment. E3 care may be the **first step toward restoration of functional health,**

b. **Categories of Evacuation Precedence.** The process of patient categorization will determine **how quickly a patient will be evacuated within the patient movement system.** Categorization is determined by the physician at the originating facility and may be upgraded or downgraded at each succeeding echelon of patient care. **The categories of precedence are: urgent, priority, and**



Clinical facilities provided in the E3 environment exceed that of lower-level threat environments.

as compared to procedures that stabilize a condition or prolong life. E3 care may not have the crisis aspects of initial resuscitative care. Therefore, care at this level of treatment can proceed with greater deliberation. Limited specialty surgical capability is available at E3 MTFs.

•• **Echelon 4 (E4).** Care is provided in an **MTF staffed and equipped for definitive care** and includes specialized surgical capability.

•• **Echelon 5 (E5).** Care is **convalescent, restorative, and rehabilitative** and is normally provided by CONUS-based military, Department of Veterans Affairs, and/or National Disaster Medical System civilian hospitals.

routine. Figure I-2 lists the evacuation categories and approximate evacuation time periods.

• **Urgent.** Patients requiring **emergency evacuation** to save life, limb, eyesight or to prevent serious complications of injury or existing medical conditions. Psychiatric or terminal cases with a very short life expectancy are therefore not considered urgent.

• **Priority.** This category includes patients requiring **prompt medical care not available locally.** This precedence is used when the medical condition could deteriorate and the patient cannot wait for routine evacuation.

EVACUATION TIME PERIODS

CATEGORY	ARMY	NAVY	MARINE CORPS	AIR FORCE
Urgent	Within 2 Hours	Within 2 Hours	Within 2 Hours	As Soon As Possible
Priority	Within 4 Hours	Within 4 Hours	Within 4 Hours	Within 24 Hours
Routine	Within 24 Hours	Within 24 Hours	Within 24 Hours	Within 72 Hours

NOTE: The categories of evacuation precedence are urgent, priority, and routine. The evacuation time periods are flexible, mission dependent, and vary greatly among the Services based upon the different types of evacuation assets that each uses.

Figure I-2. Evacuation Time Periods

- **Routine.** This group of patients requires **medical evacuation**, but their condition is not expected to deteriorate significantly.

c. Theater Evacuation Policy

- The theater evacuation policy states **the maximum number of days** (hospitalization and convalescence) a **patient may be held in a particular operations zone for treatment prior to onward movement or return to duty.** Patients who cannot be returned to duty within the specified number of days are evacuated to the next operations zone for further treatment. This policy is flexible and can change as the tactical situation dictates.
- The theater evacuation policy is set by the Secretary of Defense in coordination with the geographic combatant commander (CINC) prior to operation plan (OPLAN) execution. Upon execution, the theater evacuation policy is adjusted by the CINC as needed.
- Normally, the evacuation policy is seven (7) days for the combat zone and a

combined total of fifteen (15) days for the combat zone and the communications zone, in accordance with the Secretary of Defense policy and the Chairman of the Joint Chiefs of Staff guidance. This does not imply that a patient must be held in theater for the entire period. Patients not expected to RTD within the number of days expressed in the theater evacuation policy will normally be evacuated:

- as soon as their **medical condition permits** or when local stabilization capabilities have been reached; or
- when medical authorities have determined that **travel will not aggravate their disabilities (at a minimum, patients will have their airway secured, bleeding stopped, shock treated, and fractures stabilized)**; and
- when **suitable receiving MTFs and transportation have been arranged.**

- d. **Medical Regulating.** The process selects destination medical treatment facilities having the necessary health service support

capabilities for Uniformed Services patients being medically evacuated in, between, and into and out of the different theaters of the geographic combatant commands and CONUS. Medical regulating is based on patient precedence and MTF specialties.

e. Patient Evacuation

- **Evacuation Patient Flow.** Evacuation is performed by the **next higher echelon of care** going forward and evacuating rearward.
- **Service Responsibilities**
 - **Patient evacuation in the combat zone (CBTZ)** — from E1 to E2, from E2 to E3, or within MTFs positioned within an AO where E3 level of care is provided — is normally the **responsibility of the Service component commands of the joint force commander (JFC)** and usually occurs along established routes of evacuation. However, when this is not possible, use of common-user theater aeromedical evacuation (AE) aircraft for the movement of patients from E2 to E3 and beyond is executed according to medical regulating principles and practices and is preplanned and coordinated by the joint force commander through the joint force surgeon. These operations may include the use of Air Force mobile aeromedical staging facility (MASF) teams and Air Force preconfigured aircraft which are equipped and staffed for en route care.
 - **Patient evacuation may be conducted in conjunction** with combat operations, troop movements, or logistics movements within an AO. In such situations, JFCs should **integrate and coordinate the use of evacuation resources** towards the common purpose of reducing mortality while maintaining medical treatment, theater, and subordinate joint force objectives. It is

therefore critical that **each Service component properly plan to operate its portion of the overall patient movement system.**

- Within each Service component command, the command staff should provide **technical assistance** for all functions of the patient movement system. These functions include **operational guidance, intelligence, logistics, and communications support.** Within 24 hours of entering the operational area, each unit commander should prepare and submit a **readiness report** to the JFC. This report will contain resource capability and level of HSS that can be readily provided to the JFC.
- **Patient Stability.** Patients will be **stabilized within the limitations of the originating MTF's capability.** Prior to moving patients, an open airway must be established, fractures splinted, hemorrhage controlled, and shock treated.
- **Contaminated Patients.** Patients contaminated with nuclear, biological, or chemical agents will normally be decontaminated prior to evacuation. Contaminated personnel will not routinely be enplaned on aeromedical evacuation aircraft. If an aircraft becomes contaminated as a result of transporting contaminated patients, that aircraft would have to be flown to a remote site for decontamination which would take it out of service for an extended period of time.
- **Medical Attendants**
 - Care requirements above resuscitative and supportive care must be met through medical augmentation of available AE personnel. This is accomplished by medical attendants from the patient's

originating MTF or from an aeromedical evacuation medical crew augmentees pool. Figure I-3 presents examples of patients requiring medical attendants.

•• **Medical attendants** accompanying patients aboard AE missions are individuals **other than AE crew members** or **mission-assigned flight surgeons**. **Attendants maintain accountability** for the patient from the originating MTF to the final destination. Additionally, they may be requested by the Medical Crew Director (MCD) to **evaluate and assist** in the care of other patients aboard the aircraft. The attending MO should be familiar with the clinical stabilization guidelines contained in Joint/Air Force Handbook 41-301-01, “Physician’s Guide for AE.”

- **Patient Personal Items. Weapons will not be evacuated** with the patient. **Chemical protective gear will remain with the patient** in accordance with (IAW) established theater operations policy. **Limited personal items and/or valuables will be evacuated** IAW unit and/or Service standing operating procedures and Air Force instructions.
- **Patient Movement Items (PMIs).** The medical equipment and supplies required to support the patient during evacuation are referred to as PMIs. The handling and return of equipment to the AE system requires a reliable supporting logistics infrastructure to ensure that PMI are available and serviceable. The plan for a PMI exchange system and the return of AE equipment and PMI to the

ORIGINS OF THE FLYING AMBULANCES

The movement of seriously ill or injured patients to medical facilities was pioneered and to a large extent perfected by military forces. From the “flying ambulances” of Napoleonic times to modern jet aircraft flying intensive care wards, a major part of our experience with the transport of patients over the years derives from military medical care.

The experience of American military forces over the last century illustrates the efficacy of early rescue and rapid transport of the patient to a facility for stabilization. The mortality rate of patients evacuated from the battlefield to a medical facility was reduced from 8.1 percent in World War I to 2.5 percent in Vietnam, and the casualty fatality rate of 27 percent in World War II reduced to 17 percent in Vietnam. It has been estimated that in Vietnam definitive hospital care was available to most patients within 35 minutes of wounding or less. While there is no doubt that some of the reduction in mortality for wounded soldiers over the years can be attributed to improvements in medical and surgical care, there is also little doubt that availability of such care within minutes of wounding has contributed significantly to improved survival rates.

The implications of this for the transportation of patients in shock are clear. Whatever the cause of shock, survival is dependent on early identification of the victim, life-saving care at the scene, and rapid transport of the victim to a hospital for stabilization.

SOURCE: Hardaway, Robert M., Care of the Wounded in Vietnam, Sunflower University Press, 1988

PATIENTS REQUIRING SPECIALIZED CARE

 PATIENT TYPES	MEDICAL ATTENDANTS REQUIRED
Ventilator Patients	Physician, Critical Care Nurse and/or Respiratory Therapy Technician
Trauma/Cardiac Patients Requiring Cardiac Monitoring	Advanced Cardiac Life Support System Certified Physician/Nurse
Psychiatric Patients Posing a Safety Hazard to Themselves or Others	Nurse or Appropriately Trained/Certified Medical Technician
Severe Burn Patient	Physician or Nurse with Burn Physiology Training
Any Patient Requiring Close Monitoring, One-On-One Care, or Frequent Medications or Treatments	Nurse or Appropriately Trained/Certified Medical Technician

Figure I-3. Patients Requiring Specialized Care

originating theater should be addressed in the respective theater OPLAN.

- When a patient requires evacuation, it is the originating MTF’s responsibility to provide the PMI required to support the patient during evacuation. This PMI accompanies a patient throughout the chain of evacuation from the originating MTF to the destination MTF, whether it is an intra- or intertheater transfer. The Services will include and maintain initial quantities of Defense Medical Standardization Board (DMSB) standardized PMI in the appropriate medical assemblages. They should not assume or plan for shortfalls of PMI being satisfied by PMI centers. Through the DMSB, the Services will identify and approve PMI equipment items such as those listed in Appendix A, “AE Patient Support Equipment and Supplies.” Medical equipment for use in AE must be certified for use in aircraft by the Services’ testing agencies. To reduce medical equipment shortfalls experienced within the theater, the JFC must ensure that detailed procedures are established to request and refurbish PMI.

- **Patient Movement Item System.** The mission of the PMI system is to support in-transit medical capability without removing equipment from patients, to exchange in-kind PMI without degrading medical capabilities, and to provide prompt recycling of PMI. The PMI system comprises the management of PMI equipment and materiel. The PMI system will provide a seamless in-transit patient and/or equipment management process from initial entry to the patient’s final destination. The PMI system will deploy with the AE system, be managed and supplied through the AE system, and collocate with AE intratheater and/or intertheater interfaces in order to provide initial AE operational capability, sustainment of AE operations, and minimize equipment turnaround time.
- **PMI Centers.** Establishment of theater PMI centers is the responsibility of the US Air Force. Air Force medical units will be tasked, trained, organized and equipped to perform AE missions, including PMI operations. Five PMI centers will be established to support

worldwide theater requirements. PMI centers will be located at ports of embarkation and/or debarkation within CONUS and outside the continental US to match AE support plans. PMI centers are responsible for the overall management, in-transit visibility, and

responsibility of the CINC and executed by the Director, AE Forces.

- **PMI Cells.** PMI centers incorporate and support PMI cells. PMI cells are a flexible subset of the PMI center capable of establishing a forward PMI equipment



The PMI system supports in-transit medical capability without removing equipment from patients.

tracking of PMI. PMI centers will receive, refurbish (i.e., technical inspection, calibration, repair, and provision of 3 days of expendable supplies), redistribute, and return PMI collected from MTFs. The US Army Medical Materiel Agency may be required to provide the same level of maintenance support in CONUS if required. PMI centers can be augmented with personnel and equipment from the other Services in the event of surge and sustained requirements. Service liaison personnel can also be assigned. At the time an MTF initiates a patient movement request requiring PMI, the PMI center and/or cell will initiate action for exchange of in-kind PMI. MTFs will clean PMI equipment before returning it to another facility, PMI center and/or cell, or transportation point. **Intratheater movement of PMI equipment is the**

exchange location. PMI cells will support PMI exchange as far forward as theater AE patient movement is approved to operate. PMI cells will be deployed to forward operating locations to support one or more forward medical elements by pushing PMI to those locations. PMI centers and/or cells will require base operating support supplied by local operational support elements. As the theater matures and Single Integrated Medical Logistics Management (SIMLM) is established, the PMI centers and/or cells will coordinate as necessary with the SIMLM to obtain support in the areas of requisitioning, storage, maintenance, and battlefield distribution of PMI-related items. Forward battlefield distribution and exchange of PMI will be a SIMLM or Service responsibility.

The plan for a PMI exchange system and the return of PMI to the originating MTF will be addressed in theater OPLANs.

- **Patient Evacuation Contingency Kits (PECKs).** Initial theater PMI requirements will be supported by deployable modular kits called PECKs, to be provided by the PMI centers and cells. PECKs will augment theater PMI centers and cells until they are fully established with their preplanned inventory levels. A PECK supports the medical evacuation of 30 patients (see Appendix A, “AE Patient Support Equipment and Supplies,” for contents).
- **Patient Validation.** Prior to entry into the Air Force AE system, **patients must be administratively and clinically validated.** This will be accomplished by the Global Patient Movement Requirements Center (GPMRC)/Theater Patient Movement Requirements Center (TPMRC), formerly the Armed Services Medical Regulating Office (ASMRO)/Joint Medical Regulating Office (JMRO). **Administrative validation** confirms that required items of information are provided and ensures that patients who require movement are eligible for movement on US Transportation Command (USTRANSCOM) assets and have an agency confirming financial reimbursement for that travel, if required. **Clinical validation** ensures that patients who require movement for care are being sent to appropriate MTFs, PMIs and all medical attendants are available, and their medical condition will not be exacerbated during flight.
- **Evacuation of Enemy Prisoners of War (EPWs).** In consonance with provisions outlined in the Geneva Conventions, **EPW patients are afforded the same level of HSS and medical care** as patients of the detaining power. Seriously wounded, injured, or sick EPWs will be evacuated through medical channels, but will be segregated from US and allied patients. EPWs will be evacuated from the CBTZ as soon as possible. However, EPWs who, due to wounds or sickness, would run greater risks by being evacuated than by remaining where they are, may be temporarily kept in a danger zone. **Qualified medical retained personnel (RP) will be used as much as possible** in medical and hygiene work needed for the well-being of EPWs (preferably the RPs will be members of the same Armed Forces as the EPWs). The JFC is responsible for providing non-medical guards for EPWs in the HSS system.

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CHAPTER II

JOINT PATIENT MOVEMENT OPERATIONS

"If it should be otherwise, if we should have to leave our bleached bones on these desert sands in vain, then beware of the anger of the Legions!"

Marcus Flavius
Roman Centurian, (c. 50 BC)

1. Introduction

Joint HSS planning requires the **integration of joint and Service HSS capabilities into the JFC's concept of operations** (i.e., tactical mission and/or situation, enemy and friendly capabilities, threat assessment, and theater evacuation policy). Planning ensures a **coordinated effort** in providing timely and effective patient movement which involves route planning, movement control, and locating appropriate medical treatment facilities. All available forms of transportation must be considered within the constraints of the tactical situation and the details of patient handling. The movement of wartime casualties of the Armed Forces of the United States will be accomplished by air when airlift is available and AE is feasible.

a. Evacuation plans should integrate and include **ground ambulances and rotary- and fixed-wing aeromedical evacuation assets, crew augmentees, and attendants**. Also to be included is planning for transporting stabilized patients, MASFs, aeromedical staging squadrons, aeromedical evacuation liaison teams, and handling of patient movement items. **All must be planned with associated command and control elements and equipment**. Air assets may be dedicated, preplanned, designated, or opportune.

b. **Intertheater and intratheater medical evacuation procedures** for bed reservation, destination medical treatment facility designation, in-transit patient visibility, and patient tracking **will be consistent with the**

US Commander in Chief, Transportation Command (USCINTRANS) GPMRC and supported CINC TPMRC policies.

c. Activation and utilization of the AE segment of the **Civil Reserve Air Fleet (CRAF)** should be planned for appropriate stages of CRAF activation.

d. The **US Army** is responsible for providing **medical rotary-wing support to ship-to-shore and shore-to-ship patient transport operations**. This includes hospital ships (T-AH) and Casualty Receiving and Treatment Ships. Army AE support to a mature theater is characterized as an area support mission that includes support to **all Services operating within the assigned grid coordinates**. Requests for Army AE support from the Navy and/or Marine Corps will be **prioritized by urgency** and not by Service of origin. Plans should reflect this arrangement when it supports the commander's concept of operations. Otherwise, the Navy and Marine Corps have responsibility for ship-to-shore and shore-to-ship movement of patients.

e. The **US Air Force** is responsible for providing fixed-wing AE. AE is used to transport patients under medical care within the combat zone (intratheater), from the combat zone to medical care in the communications zone (COMMZ), and from the COMMZ to and within CONUS (intertheater), or to an intermediate supporting theater. Fixed-wing AE can operate as far forward as C-130s or other aircraft used for AE routinely operate in support of common-user transportation



Hospital ships deployed in or near an area of operations can shorten and/or simplify evacuation operations.

requirements and the required aircraft support is available.

2. Concepts of Joint Patient Movement Operations

a. **General. Patient movement is a system that involves the coordinated use of intratheater and intertheater evacuation assets** in support of patient regulating decisions made by medical personnel. **It is designed to coordinate the movements of patients** from site of injury or onset of disease, through successive echelons of medical care, to an MTF that can meet the needs of the patient. The patient movement system, shown in Figure II-1, operates worldwide to regulate all Service component patient movement.

- **Global Patient Movement Requirements Center.** GPMRC is a **joint activity** reporting directly to USCINTRANS, Department of Defense's (DOD's) **single manager** for the strategic and CONUS regulation and movement of uniformed Services patients. The GPMRC provides medical regulating services, including clinical validation, limited patient in-transit visibility (ITV) and evacuation

requirements planning for intertheater AE, and intratheater AE for CONUS. The GPMRC communicates intertheater and CONUS patient movement requirements to Service components, who execute the AE mission. The GPMRC, through the Tanker Airlift Control Center (TACC), coordinates execution of intertheater AE missions and also carries out coordination with TPMRCs to integrate and resolve difficulties with TPMRC plans and schedules.

- **Theater Patient Movement Requirements Center.** TPMRC is an organization that is a **functional merger** of some of the functions of two existing organizations: **JMRO** and the **AE Coordination Center (AECC)**. The TPMRC provides **medical regulating services**, including clinical validation, limited patient **ITV**, and **patient movement planning** within theater. The TPMRC communicates patient movement requirements with the AECC and to the Service components who are responsible for executing the mission. TPMRCs generate operational AE plans for the

WORLDWIDE PATIENT MOVEMENT SYSTEM SERVICE COMPONENTS

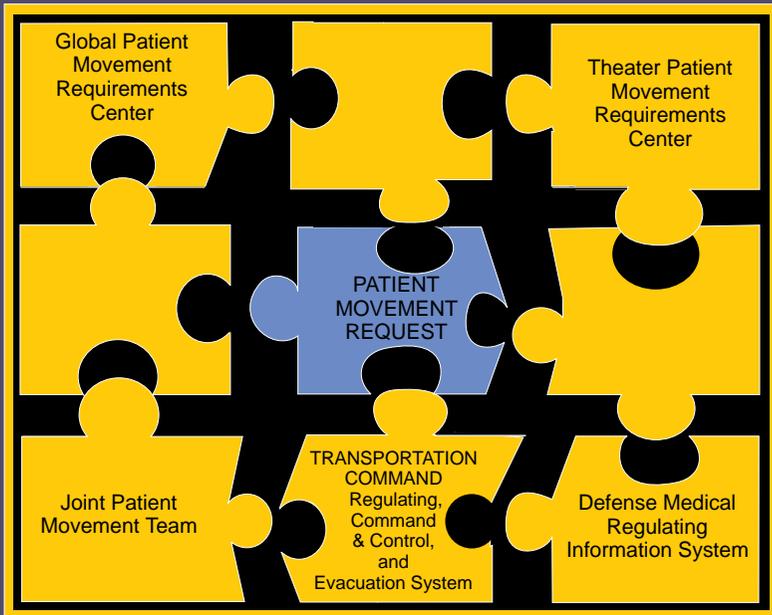


Figure II-1. Worldwide Patient Movement System Service Components

theater and coordinate patient regulating and movement with supporting activities, AE elements, and MTF activities to ensure seamless patient movement and ITV.

- Joint Patient Movement Requirements Center (JPMRC).** Provides TPMRC capability for a JTF. It will be subordinate to, and may receive direction from, the TPMRC. It will perform integrated patient movement tasks for units assigned to the JTF or within the task force's area of responsibility. It may coordinate through the TPMRC to request and schedule strategic aeromedical evacuation support, or work directly with the GPMRC as required.
- Joint Patient Movement Team (JPMT).** JPMTs are teams comprised of **personnel trained in medical regulating procedures.** These teams can supplement a GPMRC, TPMRC, or JPMRC staff. JPMTs are under operational control (OPCON) of the GPMRC until attached to a TPMRC or forward element supporting the respective joint operation.
- Aeromedical Evacuation Liaison Team (AELT).** The AELT is a six-person UTC which provides a direct communications link and immediate coordination between the user Service originating requirements for AE and the AECC. AELTs, which generally consist

of two Medical Service Corps officers, three radio operators, and a flight nurse, are under OPCON of the joint force air component commander (JFACC), who controls AE mission execution through the AECC. AELTs are normally located at the echelon of the user Service where patient movements are authorized. Depending on the tactical operation being supported, AELTs can be collocated directly with the field medical facility or at any other level of command to ensure a smooth and coordinated patient flow into the AE system.

- **Defense Medical Regulating Information System (DMRIS).** DMRIS is the **automated information** system used for medical regulating. This system will be replaced by the TRAC2ES.
- **TRAC2ES** is an **automated decision support tool** being developed to combine DMRIS and Automated Patient Evacuation System functions into a single command and control system that can be used in peacetime and contingencies. It provides **visibility of in-theater patients** requiring evacuation, available **transportation assets, available hospital beds** (by medical specialty), and patient **ITV**. The system also provides visibility for medical attendants, crew augmentees and selected items of medical equipment for improved attendant and equipment return. TRAC2ES will accommodate **three modes of operation:** Deliberate Planning, Forecasting, and Reactive Replanning at both the intertheater and intratheater level.
- **Patient Movement Request (PMR).** Various forms and formats (i.e., voice, radio, message) are currently in use by Services to request evacuation. PMRs are used **when a patient is to be moved from one facility to another.** They establish the record of evacuation and ensure rapid identification of a patient's location. PMRs are submitted by DMRIS, facsimile, voice telephone, radio and/or satellite communications, or TRAC2ES when available, using a standard PMR worksheet. The number of patient information items required to request patient movement will be determined by the GPMRC/TPMRC and will depend on the operational environment and the volume of patient movement requests.
- **Unregulated Patient Movement.** When a TPMRC is **unable to coordinate the regulation of patients** to the COMMZ or CONUS and the backlog of patients requiring intertheater movement to CONUS creates a shortage of COMMZ beds, **the TPMRC may move patients unregulated.** Normally, unregulated movement is not accepted in the AE system; however, the combat situation may dictate otherwise. In all cases, the originating AECC will ensure that the destination theater AECC or TPMRC is alerted of the departure of every AE mission with unregulated patients. As a minimum, the following will be provided: the tail number of the aircraft; departure time; number of casualties on board; number of stabilized casualties requiring immediate medical attention upon arrival; their clinical diagnosis and status; destination; and estimated time of arrival. The originating TPMRC will also attempt to provide a report of the names and numbers of casualties on each AE mission by each wartime medical specialty category. TPMRC personnel will pass this information on to the AE element at each destination airfield or, if no AE element is available, to the MTF responsible for operation of the Aeromedical Staging Squadron (ASTS).

- **Patient In-Transit Visibility.** Patient ITV is the process of **locating and/or tracking patients through the continuum of medical care and while in the AE system.** Service and cultural expectations require that a patient's location be known at all times. Patient information supporting ITV will be reported using GPMRC and TPMRC resources.
- b. **Evacuation Concepts**
 - **Dedicated patient movement assets are configured for patient evacuation,** externally marked with a red cross and

PATIENT EVACUATION IN THE PERSIAN GULF

The elements of the health care system in CENTCOM, EUCOM and CONUS were linked by the patient evacuation system. The CENTCOM AOR offered unique challenges for patient evacuation which required innovative solutions. Some tactical evacuation legs were too long for Army medical evacuation (MEDEVAC) helicopters. USAF C-130s were prepared to fly into the Corps areas (including Iraq) to satisfy this requirement. In addition, 12 Army MEDEVAC helicopters were used to transport patients to and from the Navy hospital ships in the Persian Gulf.

The rapid movement of ground forces to the west stretched the medical evacuation lines considerably. During Operation DESERT STORM, CENTCOM used more than 220 dedicated medical helicopters and more than 1,000 ground ambulances (including 60 German ambulances and 100 medical evacuation buses). During the ground campaign, more than 30 C-130 missions a day were committed to aeromedical evacuation support, if needed, and an additional 74 C-130 missions a day were available. USAF Aeromedical Evacuation assets in the CENTCOM AOR, EUCOM, and CONUS included 18 aeromedical staging facilities, 13 mobile aeromedical staging facilities, 31 aeromedical evacuation liaison teams, 18 aeromedical evacuation control elements, and three theater aeromedical evacuation control centers.

The aeromedical evacuation system performance can be illustrated by the missions flown in support of CENTCOM. During Operation DESERT SHIELD, 242 C-130 aeromedical evacuation missions were flown, transporting 2,136 patients. During Operation DESERT STORM, 173 C-130 missions were flown which transported 2,375 patients, including Coalition and Iraqi casualties.

In order to provide strategic patient evacuation between SWA, EUCOM and CONUS, Transportation Command (TRANSCOM) considered using aircraft in the dedicated aeromedical segment in Stage III of the Civil Reserve Air Fleet (CRAF) to reduce competition for C-141s. At TRANSCOM's request, the USAF contractor prepared to speed production of 10 sets designed to convert CRAF III Boeing 767 interiors for aeromedical use. Delivery was scheduled for April 1991; however, with the end of hostilities, accelerated production was no longer necessary.

SOURCE: DOD Report to Congress,
Conduct of the Persian Gulf War, April 1992

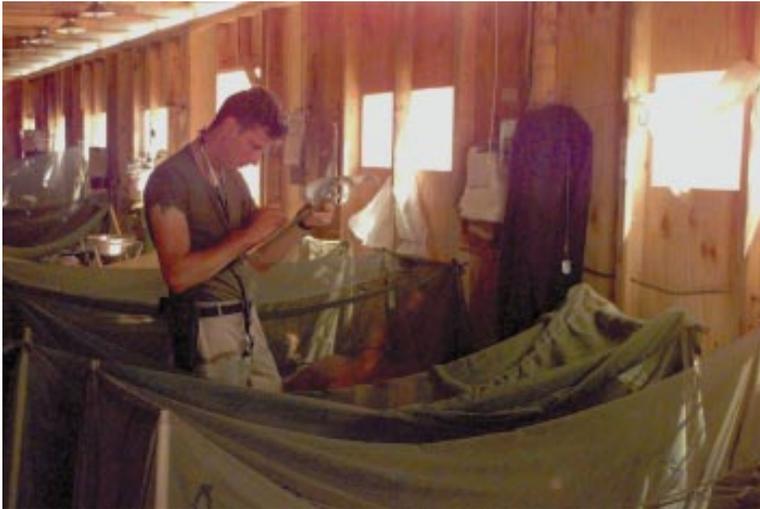
specifically dedicated to support the medical evacuation mission. Dedicated assets need not be organic to the unit. Dedicated evacuation assets are authorized protection under the Geneva Convention.

- **Preplanned (USAF) and designated (USN/USMC) evacuation assets** are those whose primary mission is **non-medical**, are not externally marked, and are **allocated on the air tasking order and configured**

their capabilities can be found in Appendix B, “Service Component Transportation Assets.”

3. Intratheater Patient Movement Operations

Intratheater patient movement is a **system which uses theater resources to evacuate patients to medical treatment facilities**. Patients may enter the system at the point of



Casualty evacuation between CBTZ hospitals and COMMZ hospitals is accomplished through intratheater patient movement operations.

for patient movement. Designated evacuation assets are not afforded protection under the Geneva Convention.

- **Lifts of Opportunity.** Lifts of opportunity are usually **non-medical conveyances used to move patients**. They are not protected under the Geneva Convention. Lifts of opportunity have no organic medical personnel or medical equipment assets. Therefore lifts of opportunity should only be used if the patient condition warrants.
- **Service Component Transportation Assets.** A detailed listing of Service component evacuation resources and

injury or onset of disease and are moved to appropriate echelons of care within the theater. This also encompasses evacuation between CBTZ hospitals, between COMMZ hospitals, or from CBTZ hospitals to COMMZ hospitals. Patients are most likely to enter the joint system for evacuation and medical regulation at E3. However, casualties can enter at E2, depending on the type of operation and forces supported.

- a. To support the JFC’s concept of operations, the **joint force surgeon** is responsible for **developing intratheater patient movement policies, integrating the functions** of specific organizations

participating in the theater patient movement system, and **coordinating** the use of organic and **common-user patient movement assets**. The JFC normally assigns the TPMRC functional responsibility for coordinating with Service component evacuation organizations to support patient movement from Service component MTFs to intratheater or intertheater ports of embarkation.

b. **Point of Injury to E2.** Generally, the **component commands are responsible for casualty evacuation from point of injury to E1 casualty treatment stations and casualty movement from E1 to E2** via dedicated, designated, or opportune ground or air transportation. This is accomplished through a combination of litter carries, manual carries, ground transportation, and limited air transport. The **Army** generally employs dedicated patient evacuation assets such as ground and air ambulances. The **Navy** relies on lifts of opportunity. The **Marine Corps** has some dedicated ground evacuation and relies on designated air and other lifts of opportunity. At this level, the **Air Force** will normally use lifts of opportunity.

c. **E2 to E3 Operations. Movement within and from E2 is normally a Service component responsibility**; however, operations that incorporate the use of E3 MTFs may require casualty movement from E2 and evacuation to E3 by the **joint AE common-user system**. For example, the Marine Corps has no medical capabilities beyond E2, therefore **medical care beyond E2 is provided by the Navy or other Services**. The Navy does not have dedicated or designated evacuation vehicles with go-forward capability to retrieve patients from E2 and evacuate to them to E3. In this case, the Navy may be supported by Army and Air Force AE assets as appropriate. In such cases and others that require access to the joint AE common-user system, requests for patient movement may be submitted to the local

AELT or transmitted directly to the TPMRC for coordination.

d. **E1/E2 to E4 or CONUS Operations.** Some joint operations may present unique situations where **an E3 medical infrastructure does not exist**. Stabilized casualties will enter the joint AE common-user system near the first level of formalized medical care (E1/E2) and be evacuated directly to E4 MTFs in another theater or CONUS. In such cases, **the component command medical regulating officer will submit a PMR to an AELT when deployed, or submit the PMR directly to the TPMRC/JPMRC when an AELT is not utilized.** (See dotted arrow, Figure II-3.)

e. **E3 to E4 Operations.** Patient movement support of theater medical regulating decisions will be accomplished using **opportune, retrograde, preplanned, or dedicated aircraft**. If a patient cannot be returned to duty within the limits of the theater evacuation policy, **the originating MTF will request that the patient be regulated to another MTF for more definitive care and disposition. The originating MTF will submit a PMR** in accordance with prescribed procedures using DMRIS, another communications support system, or TRAC2ES when available. This request can be made directly to an AELT when deployed, directly to the TPMRC/JPMRC, or through intermediate Service component medical organizations for subsequent coordination with the TPMRC. **The TPMRC validates and consolidates movement requirements, and coordinates the requirements with other MTFs in the theater or with the GPMRC for intertheater patient movement.** The TPMRC will identify intratheater patient movement requirements through the Joint Movement Center (JMC), to the Airlift Coordination Cell (ALCC), and the GPMRC will identify intertheater patient movement requirements to the Mobility Control Center (MCC).

- Patients may be transported from the originating MTF to a **MASF** for pre-flight processing, or **directly to the aircraft** for entry into the Air Force component AE system. Patient transportation to the MASF or to the aircraft is the responsibility of the sending facility. In instances where the originating MTF cannot provide or arrange appropriate support to evacuate patients to the staging facility, the joint force surgeon may be requested to assign the TPMRC functional responsibility for coordinating with Service component transportation or evacuation organizations to accomplish this

mission. Prior to evacuation, **patients will be stabilized** to the level of care which the sending facility can provide. Patients evacuated to the next level of medical care will be **reevaluated prior to further movement**. Patient care onboard the aircraft is **resuscitative and supportive**; additional clinical providers may be required to augment specific AE crews (see Figure I-3). Patients should be moved with enough medication, special diets and consumable supplies to last the expected duration of the flight. Typically, intratheater patients require a one day supply and intertheater patients require a three-day supply.

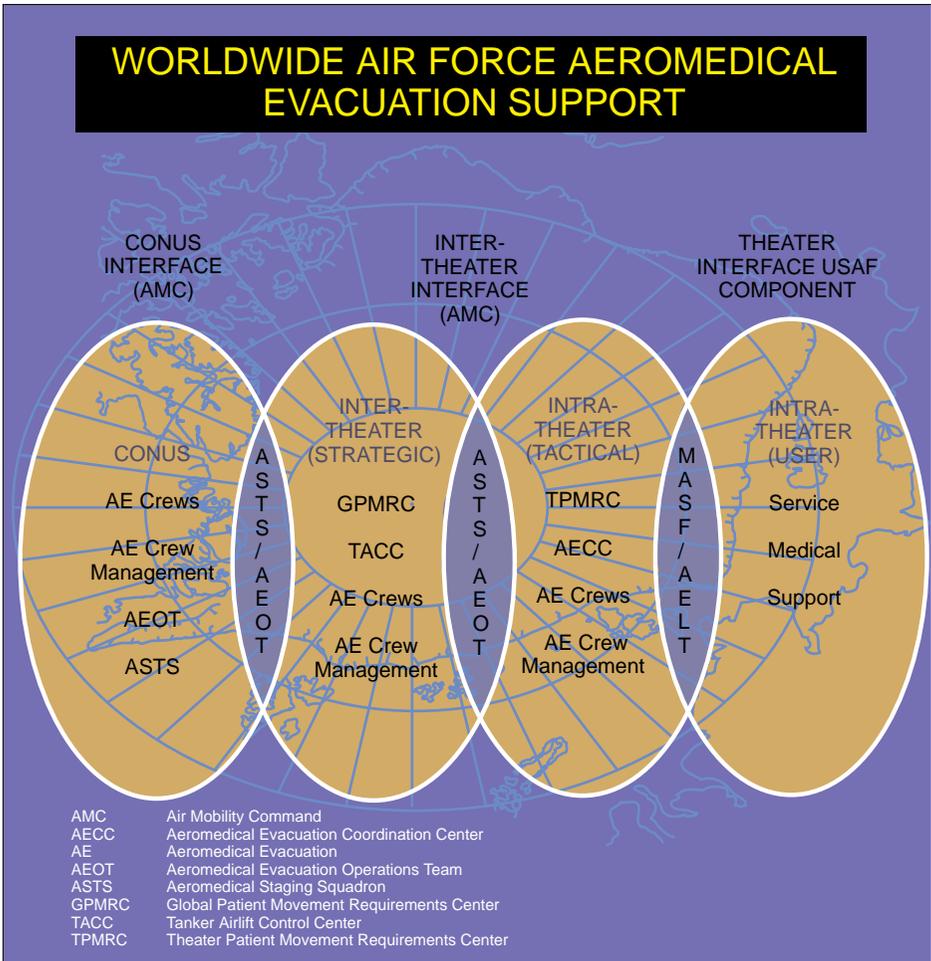


Figure II-2. Worldwide Air Force Aeromedical Evacuation Support

4. Intertheater Patient Movement Operations

Intertheater evacuation supports the **movement of patients from a theater to another theater or CONUS**. This movement requires **coordinated efforts** between Service or host-nation MTFs, patient movement elements, patient movement requirements centers, and transportation agencies.

a. **Planning Factors.** Intertheater patient evacuation is **supported by USTRANSCOM airlift resources**, as distances required preclude supporting other modes of travel.

When circumstances warrant, sealift may be used for intertheater patient movement. The intertheater patient movement system may serve as the **AE interface between the intratheater and CONUS patient movement systems**. The interoperability of these AE operational elements is shown in Figure II-2.

b. Intertheater Patient Movement

- **Intertheater aeromedical evacuation.** Intertheater aeromedical evacuation is **controlled by the TACC**. Coordinating for intertheater patient movement

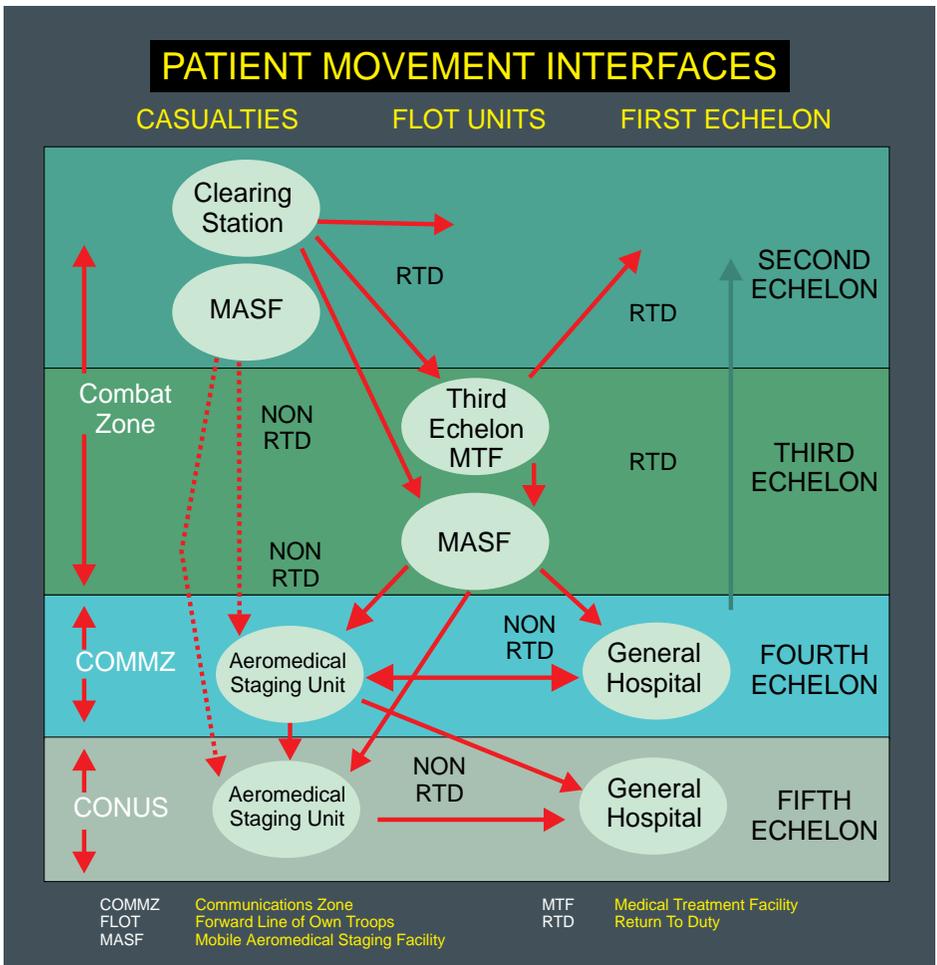


Figure II-3. Patient Movement Interfaces

requirements is through the GPMRC and/or TPMRC. Validated requirements are then submitted to the MCC for tasking and to the TACC for execution.

- **Patient Interface.** The transferring MTF is responsible for the **transportation of the patients from the facility** to a supporting **Air Force staging facility** used to hold patients prior to AE, or to the aircraft. The staging facility, if employed, is responsible for the transportation of patients from the staging facility to the aircraft. **Patient reception is the responsibility of the destination MTF.** If the patient remains in-transit and requires further evacuation to reach final destination, an en route MTF is responsible for patient care and transport. Representative patient interfaces are graphically represented in Figure II-3.

c. **Intertheater AE Assets.** USTRANSCOM Air Mobility Command (AMC) will use dedicated, preplanned, opportune, or retrograde aircraft missions to **pick up patients from staging facilities at designated theater AE interface airfields.** AMC maintains command and control over intertheater airlift and supporting non-theater assigned elements. Coordination for intertheater evacuation is through the GPMRC. Execution of the intertheater AE mission rests with the TACC. Service transportation assets supporting airlift resources are described in Appendix E, “Service Component Transportation Assets.”

5. Command, Control Communications, and Computers (C4) System

a. **A responsive C4 system is essential to the conduct of patient movement.** JFCs will establish a system that integrates the available capabilities of the patient movement

system, synchronizes its application, and prepares to employ air, land, and sea forces to achieve patient movement objectives. This system will also **support the operational requirements of HSS information management** as it relates to patient accounting and reporting, medical regulating, patient movement, and patient ITV.

b. **Service component commanders** are normally responsible for command and control (C2) of individual HSS organizations involved in joint patient movement. However, the **joint force surgeon** is responsible for establishing a joint patient movement concept of operations and for identifying communications requirements necessary to integrate the functional aspects of the joint patient movement, medical regulating, and evacuation protocols out of the theater. This may include defining the requirements needed for intratheater and intertheater AE support. Execution of patient evacuation from point of illness or injury to organizational MTFs, however, is the responsibility of the **Service component commander.** Effective patient movement during joint operations will require a **closely coordinated and mutually supportive effort of all participating forces** carefully balancing mission requirements while contributing to the total theater patient movement effort.

c. The **JFC** may provide detailed **theater communications plans or assign theater communication management responsibilities** to a single-Service component for specific functions during joint patient movement operations. **Early identification** of a theater’s C4 system requirements for HSS connectivity is essential. At a minimum, HSS communications in support of patient movement must provide **reliable, real-time and, when possible, redundant communications** within a theater and from theater to CONUS. They must also provide a **link** between the most forward point where

the patient enters the patient movement system and each echelon in the HSS system to the destination MTF or medical element.

d. The degree of success of patient movement operations is a function of the availability of **reliable communications over dedicated and interoperable systems**. HSS movement planners must identify frequencies that are common between Service component support forces assigned a patient movement mission. If no commonality exists, the JFC will develop a theater plan that ensures adequate communications support to all Service components. All frequency requirements for organic equipment must be coordinated with the geographic combatant commander's plans staff.

e. **Short-range radio communications** should be provided by Service component HSS units to ensure communication between MTFs, evacuation vehicles, boats, and aircraft.

f. When available, **theater-based, long-range communications** will be provided by high-frequency radios, military satellite communications, Defense Switched Network, Defense Data Network, and Automatic Digital Network communications systems.

g. **Satellite communications** offering access to commercial telephones or point-to-point systems should be used when available.

h. **Secure communications** are provided through voice and data security communications equipment.

i. The Chairman of the Joint Chiefs of Staff (CJCS) Manual 6120.05, "Tactical Command and Control Procedures for Joint Operations - Joint Interface Operational Procedures," outlines responsibilities **and message text format requirements** for operational patient movement requests and evacuation procedures. **These messages include the following:**

- Medical Regulating Report
- Aeromedical Evacuation Request
- Aeromedical Evacuation Response
- Aeromedical Evacuation Confirmation
- Patient Movement Request

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CHAPTER III

MILITARY OPERATIONS OTHER THAN WAR

"He that outlives this day, and comes safe home, Will stand a tip-toe when this day is named."

Shakespeare, Henry V

1. Introduction

Military operations other than war (MOOTW) consist of 16 representative types of operations including noncombatant evacuation operations, peace operations, combating terrorism, and enforcing exclusion zones (See Joint Pub 3-07 for complete list). Medical forces are tailored to meet the health service support requirements of each type of MOOTW. When planning for MOOTW, the potential to move the host nation population and/or allied and/or coalition military personnel must be evaluated. The respective capabilities of allied and/or coalition medical forces, and their ability and/or agreement to provide these to US forces should also be considered prior to finalizing the medical support concept and subsequent force list.

2. Patient Movement

See Figure III-1.

a. **Evacuation Policy.** As with any military requirement, medical forces and evacuation policies are tailored to meet the **specific needs of each type of MOOTW. Some MOOTW may not be supported by a local MTF.** Patients may routinely be moved as soon as they can be initially treated to reduce morbidity, sufficiently stabilized, and airlift can be arranged.

b. **Patient Movement.** Due to the limited number of MTFs for worldwide operations, commanders may use a point-to-point patient movement system from a single evacuation site to a designated reception hospital in another theater or in CONUS. When multiple

MTFs are employed, an evacuation network similar to that described for E2, E3, E4 and/or E5 may be established. Although a scheduled route structure may be implemented, the common-user aircraft used to support casualty evacuation will frequently be **retrograde airlift bringing in supplies and/or troops** that are off-loaded at or near the patient pick-up location. Organic Army air ambulances and other helicopters may be deployed to support regional evacuation from medical detachments employed forward from



Figure III-1. Characteristics of Patient Movement in Military Operations Other Than War

MEDICAL EVACUATION PROCEDURE — 1965

Almost all (over 90 percent) of medical evacuation was done by air. From the site of wounding, patients were taken by any means possible to the helicopter landing site, from which they were usually taken directly by helicopter to a hospital. Frequently this was a surgical hospital such as the Third Surgical Hospital at Bien Hoa. Sometimes, however, patients were first taken to a medical company or clearing station such as that at the Lai Khe Rubber Plantation. This helicopter evacuation was extremely satisfactory, rapid and relatively nontraumatizing to patients, although a number of cases were seen, including one death, which seemed to deteriorate during helicopter transportation. Certainly any other means of transportation would have been much worse. At times patients were dropped off at an installation for only a few minutes and were then taken on to an evacuation hospital, such as the 93d Evacuation Hospital at Long Binh. From these hospitals patients were evacuated by propeller-driven Air Force planes to Clark in the Philippines. Although this is a short flight, it takes three and a half or four hours by propeller craft. All Army patients seen were thought to be quite well prepared for the trip.

SOURCE: Hardaway, Robert M., Care of the Wounded in Vietnam, Sunflower University Press, 1988

the main operating base. Geographic combatant commanders are responsible for developing patient movement policies that address any requirement to treat and move allied or host-nation personnel.

c. **Patient Stability.** Similar to military operations with established echelons of care, patient stabilization levels required to tolerate a bed-to-bed move must consider **patient preparation** at the MTF, **movement** to the airfield, **staging** at the airfield prior to flight, the **flight time** to the reception airfield, **transit time** to the destination MTF and any staging required in between. The joint HSS system selection must ensure that adequate medical forces are employed to provide a sufficiently stabilized patient.

d. **Medical Attendants.** **Special attention patients** (requiring assisted ventilation, high risk for invasive procedures, extensive monitoring requirements, and so forth) **require medical attendants** and always should have their transportation

arranged as a carefully coordinated, maximally supported event. **Medical attendants will be provided from the patients' originating MTF** or from an AE medical crew augmentees pool unless other arrangements are made as part of the supporting operation plan. Attendant responsibilities, requirements, and selection criteria are similar to those outlined in Figure I-3. Since definitive care resources deployed in support of MOOTW may be limited, the medical and AE support concept and subsequent force employment list must consider how **attendants and special medical equipment will be provided** to preclude stripping MTFs of their only resources to support special attention patients.

e. **Resources.** Movement resources used for MOOTW to support organic Service movement and common-user fixed-wing evacuation are the **same as those discussed for joint military operations echelons of care**. The number and type of assets will be tailored to the supported operations.



When supporting US disaster relief, HSS will evacuate patients to DOD or CONUS medical treatment facilities.

3. Responsibilities

a. **HSS Resources.** HSS resources supporting MOOTW will normally be **evacuating patients rearward** for definitive care in a US MTF if employed overseas, or to a DOD or civilian CONUS MTF if employed in support of disaster relief operations in the US. However, if multiple employment locations are involved with the respective operation, **selected MTFs could also be designated as primary reception hospitals.** AE elements in MOOTW are responsible to coordinate AE mission operations and arrange airlift as appropriate, receive casualties at airfields, and support the onward movement to destination MTFs.

b. **Patient Movement Items.** The responsibilities of the originating and reception MTF, AE system, and PMI centers are **similar to those outlined in Chapter I, "Fundamentals of Patient Movement,"** paragraph 2e, **and in Appendix A, "AE Patient Support Equipment and Supplies."** In MOOTW, patient support items such as medications and special diets should be provided to support at least one day supply.

c. **JPMRC.** The JPMRC may be designated in the operation plans to **coordinate all common-user patient movement.** The JPMRC selected will depend on the theater in which the operation is taking place. Even in areas with an existing peacetime TPMRC, a JPMRC may be employed to support the specific MOOTW operation. When employed, a JPMRC serves as the single point for medical regulating and AE requests.

d. **MTFs.** The limited availability of MTFs may require the use of other assets to provide the necessary medical care. Use of **host-nation resources** depends on the location of the operation. In many less developed countries, the geographic combatant commander may recommend against using host-nation assets. **MOOTW may also involve allied nations.** If so, US deployed medical presence may be reduced if adequate support can be obtained from these allies. When using allied support, however, consideration still must be given to the responsibilities for attendants and special medical equipment and how best to provide these critical evacuation support elements.

e. **AE Resources.** MOOTW AE employment will consist of the **same type of resources identified to support military operations with the medical infrastructure commensurate with E3 and E4 capabilities.** Selection of the asset (E3 intratheater orientation or E4 intertheater orientation) depends on the primary mission to be supported (e.g., intertheater reception, staging,

and onward movement, intra-CONUS AE, natural disaster support) the location to which employed, supporting infrastructure available at the employment site, and other related considerations. MOOTW AE operation planning and resource requirements must also address any requirement to support allied personnel, host-nation personnel, refugees, and/or migrants.

CHAPTER IV

SPECIAL OPERATIONS PATIENT MOVEMENT

1. Introduction

This section provides an overview of the **nature and requirements of patient movement during special operations**. The intent is to highlight the unique aspects of special operations patient evacuation and regulating, shown in Figure IV-1, that warrant planning attention beyond the procedures outlined in Joint Pub 3-05.3, “Joint Special Operations Operational Procedures,” Appendix O, “Health Service Support,” and Joint Pub 4-02, “Doctrine for Health Service Support in Joint Operations,” Chapter III.

a. **Organic special operations forces (SOF)** HSS assets of the Army, Navy, and Air Force are extremely austere. SOF lacks a dedicated patient movement system and the ability to perform E3 and E4 level medical care. Evacuation of casualties within the joint special operations area can be done by SOF aircraft, but these aircraft are not medically equipped or staffed for use in a backhaul capacity. The conventional planner must understand this limitation when determining how to best support SOF-generated evacuation requirements. The nature of SOF missions require that SOF medical personnel possess a variety of enhanced medical skills that enable them to operate under a multiplicity of circumstances. SOF enlisted personnel receive enhanced medical training that exceeds the level and scope of that training afforded to combat medics in conventional units.

- **Army SOF (ARSOF)** HSS assets are organic to Special Forces, Ranger units, and Army special operations aviation units. Each unit is capable of providing E1 care. Civil affairs and psychological operations battalions have

no organic medical assets for medical care to their units and are dependent on area medical support from conventional forces. Civil affairs battalions have medical personnel assigned but are organized to provide advice and expertise to the supported missions and not medical support to the force. ARSOF depend exclusively on conventional units to provide aeromedical evacuation from E2 to E5 HSS facilities. Casualty evacuation by

CHALLENGES OF PATIENT MOVEMENT DURING SPECIAL OPERATIONS

- ➔ Absence of Organic Health Care Structure and Dedicated Medical Evacuation Assets
- ➔ Echelon Three and Four Level Care is Difficult to Provide
- ➔ Special Operation Missions May Be Conducted Forward of the Forward Line of Own Troops, Beyond Conventional Medical Support
- ➔ Patient Movement May Be Precluded in Sensitive Areas

Figure IV-1. Challenges of Patient Movement During Special Operations

dedicated AE aircraft is the preferred method of patient movement. ARSOF do not possess this capability.

- **Navy SOF HSS** assets are organic to naval special warfare units and provide E1 care. Health care and medical evacuation beyond E1 is supported by various Navy conventional units such as the floating platform from which the team is staged, or Army and Air Force conventional units providing medical support on an area basis. This can include Army Special Forces forward operating bases. Additionally, conventional Navy and Marine units with organic E2 capability can provide medical support to the sea-air-land teams. Aeromedical evacuation is not available and must be provided by supporting units. Naval Special Warfare Command (NAVSPECWARCOM) waterborne craft may be utilized as naval evacuation platforms contingent upon mission requirements and craft ability.
- **Air Force special operations forces (AFSOF)** HSS capabilities are aligned with AFSOF operational units and consist of SOF medical elements ([SOFME]: flight surgeons and medical technicians) and pararescue specialists assigned to special tactics teams. AFSOF have E1 and limited E2 capability. SOFME provide E1 and E2 care for AFSOF and other SOF and provide flight medicine, limited military public health and bioenvironmental engineering, medical intelligence, field laboratory, chemical exposure treatment, and short-term patient holding and staging capabilities. Mission requirements will dictate deploying a personnel package with or without medical rapid response deployment kits. Additionally, a SOF air transportable treatment unit may also be deployed if required.

Although AFSOF have no organic conventional tactical or intertheater AE capability, both SOFME and special tactics teams have the capability to provide medical treatment during patient movement onboard SOF aircraft. AE for SOF is difficult because SOF frequently operate at distant locations without any other assets in theater. Remote locations in immature theaters not served by the intertheater evacuation system requires close coordination between the supporting Air Force component command and joint medical planners to identify the details for AE.

b. Special operations missions may be conducted **forward of the FLOT in sensitive or denied areas beyond the conventional HSS medical support umbrella**. Evacuation of SOF personnel must be coordinated between the CINC surgeons' staff, the Special Operations Command planner, and synchronized with the tactical plan. In the absence of a developed conventional structure, SOF plan for patient evacuation using non-standard ground and air evacuation assets. **Patient movement planning is complicated by the nature of special operations missions** that require operational security measures precluding immediate patient movement to eliminate the signature of forces in sensitive areas or compromise mission accomplishment. Patient movement from point of injury to the MTF is preplanned and makes use of non-medical conveyance by synchronizing movement with tactical and logistical airflow. The point of entry into conventional HSS for a SOF casualty can occur at any MTF. Once admitted to the MTF, SOF casualties are **not regulated, evacuated and managed similar to conventional forces**. SOF personnel may require a separate evacuation policy to prevent personnel with critical specialties from being evacuated out of theater. Convalescing SOF personnel may be able to

perform light duties at the support base and facilitate reconstitution of their teams. Generally, the SOF evacuation policy in a developed theater should be longer than that of conventional forces. Proposed policy must be submitted through SOF command channels to the geographic combatant commander for approval. The receiving MTF must also be informed of any change to the theater evacuation policy. Concurrent coordination with the JFC surgeon is required. In an immature theater, the SOF medical

planner must base the recommended evacuation policy on the mission, available assets in the operational area, available host-nation or third-nation MTFs, proximity to CONUS and availability of evacuation resources.

2. Patient Movement

Different evacuation procedures are employed depending on the special operation mission and the presence of a developed HSS system. The techniques, procedures and equipment used to evacuate and/or extract the casualty is consistent with the nature of SOF missions, shown in Figure IV-2. Casualties are evacuated by any means available when SOF personnel are operating forward of the FLOT beyond the reach of an established conventional HSS or when no support structure is available.

a. Special operations missions involving civil affairs, direct action, and psychological operations use evacuation procedures that **follow the pattern of patient movement of the conventional structure**. A patient is treated and stabilized by medical personnel and evacuated to the next higher level of care. In the SOF special operations area, the forward operations base or battalion casualty collection point is where the battalion surgeon is located. **Medical personnel treat and initiate stabilization prior to moving.**

b. Casualties are evacuated from objective areas back to an **intermediate staging base, forward operating base, or component headquarters** by organic aircraft. Conventional AE non-standard evacuation assets can be tasked to move casualties from their forward locations.

c. Casualties generated from **unconventional warfare** and **special reconnaissance missions** are **evacuated in a different manner** based on the location and the operations security requirements of the



Figure IV-2. Types of Special Operations Forces and Missions

THE DUST OFF EVACUATION

“Dust off” is slang for “medevac” which is short for “medical evacuation.” The term “dust off” is thought to come from the fact that these choppers land anywhere there is an injured or sick person needing transportation to a hospital; often such people are out somewhere in a remote area, where there is no large expanse of paved surface — often not even a paved spot on which to set the chopper down. So if it is dry season, the rotors kick up a lot of dust and leaves and twigs, particularly on takeoff. And one would suppose that is how the term “dust off” originated — not only as a noun (“Get a ‘dust off’ for him”) but also as a verb (“We dusted him off”).

SOURCE: Trembly, Diane L., Petticoat Medic in Vietnam, Vantage Press, 1976

mission. Casualties are stabilized by SOF team medical personnel. **Patients are moved to a “safe” location by whatever means possible** using clandestine techniques to avoid compromise or discovery. The potential for a compromised presence in a sensitive or denied area will complicate the ability to extract a casualty involved in a strategic reconnaissance mission. The decision to evacuate a casualty is a function of the extraction operation and the patient’s condition. **Extraction is performed by organic tactical aircraft** that evacuates the casualty to the closest MTF supporting the joint special operations area.

3. Aeromedical Evacuation

a. **Theater Patient Movement.** Prior planning and coordination with SOC planners and Service components during patient movement is critical. In a **mature theater** with an established HSS system, **SOF should maximize use of the established patient movement system.** In an **immature theater**, or when operational considerations dictate, medical personnel must be

opportunistic and **prepare to utilize other assets** such as special operations aircraft or other available platforms from the operational and/or logistical airflow. Intratheater movement may require the use of organic SOF aircraft and resources, conventional aircraft configured for AE or deployment of elements of the intratheater AE system. For some missions, medical personnel should plan to use the intratheater AE system to move casualties to predesignated MTFs. **The intratheater system provides movement of patients between MTFs in a theater.** Air Force and/or Air Mobility Command provides resources to establish or augment existing theater AE capabilities.

b. **Intertheater Patient Movement.** The intertheater AE system provides **patient movement from the theater to CONUS or to another theater.** Intertheater AE may be accomplished using retrograde portions of **USTRANSCOM assigned airlift missions**, by **dedicated airlift** authorized by the supported CINC, or by **dedicated CRAF aircraft** activated as part of the AE CRAF.

APPENDIX A

AE PATIENT SUPPORT EQUIPMENT AND SUPPLIES

1. Aeromedical Evacuation Patient Support Equipment and Supplies

Patient support equipment and supplies for use aboard AE aircraft are contained in two general subcategories or kits as listed below.

a. Standardized AE In-flight kits (Air Force TA 887) will remain with the assigned AE crews and will be managed separately within the AE system.

- 1 cardiac monitor/defibrillator.
- 1 pulse oximeter.
- 1 oxygen analyzer.
- 3-4 suction apparatus (otopharyngeal).
- 1 multi-patient intermittent suction attachment.
- emergency supplies, to include the following.
 - tracheostomy tubes.
 - chest tube insertion kit.
 - laryngoscope and endotracheal tubes.
 - oral airways.
 - AMBU bags.
 - first line cardiac drugs (bicarbonate, epinephrine, lidocaine and bretilium).
 - routine medical supplies (intravenous supplies, foleys, nasal-gastric tubes, reinforcement dressings).

- limited amounts of morphine and meperidine for emergency use only.
- Heimlich valves.

b. The following is the DMSB approved list of AE Patient Movement Items. The quantities listed equal the initial PMI requirements contained in deployable modular kits called Patient Evacuation Kits (PECK/Air Force TA 887D).

NOMENCLATURE	QUANTITY
Ventilator	4
Pulse Oximeter	4
Oxygen Analyzer	4
Defibrillator	4
Vital Sign Monitor	4
Suction (Continuous/Intermittent)	8
Infusion Pump	4
Oxygen Capability	1
Turning Frame	1
Locking Restraints	1
Spinal Board	10
Litter	30
Intravenous Pole	30
Blankets	30
Litter Pads	30
Litter Straps	60
Traction Appliance	1

3-days expendables for above items

2. Patient Movement Items

The PMI used in support of the AE mission must be AE certified by Armstrong Laboratories, Brooks Air Force Base (AFB), TX, and the Aeromedical Evacuation Proponency, Ft. Rucker, AL, for fixed-wing and rotary-wing military aircraft to ensure proper form, fit, and functionality. Refer to

Appendix A

USAFSAM-90-26, “Status Report on Medical Material Items Tested and Evaluated for Use in the USAF Aeromedical Evacuation System” and J/AFI 41-30 (draft) for detailed lists of certified equipment. An aeromedical certification label is required to designate AE certification for all PMI equipment. The DOD standard label must be affixed to each piece of AE certified equipment.

APPENDIX B

SERVICE COMPONENT TRANSPORTATION ASSETS

ANNEXES:

Annex A - Supporting Air Force AE Elements and Transportation Elements

Annex B - Supporting Army Evacuation Elements and Request Procedures

Annex C - Navy and Marine Medical Evacuation

SERVICE COMPONENT TRANSPORTATION ASSETS					
NOMENCLATURE	SERVICE	CONFIGURATIONS	LITTER	AMBULATORY (SEATS)	ATTENDANTS
TRANSPORT AIRCRAFT					
C-5 GALAXY	USAF	MAXIMUM	NOT EQUIPPED	70	2 FLIGHT NURSES
C-9 NIGHTINGALE	USAF	MAXIMUM	40	40	3 AEROMED EVAC TECHS
		COMBINED	15	24	2 FLIGHT NURSES
C-9 SKYTRAIN	USMC USN	MAXIMUM	NOT EQUIPPED	89	5 CORPSMEN
		SEATING WITHOUT CARGO LOAD			
C-21	USAF	MAXIMUM	2	5	2
		COMBINED	1	3	1
C-27 SPARTAN	USAF	MAXIMUM	24	30	4 FLIGHT NURSES
C-130 HERCULES	USAF USMC	MAXIMUM	74	85	2 FLIGHT NURSES
		COMBINED	50	27	
C-141B STARLIFTER	USAF	MAXIMUM	103	147	3 AEROMED EVAC TECHS
		COMBINED	48	38	
		MAX CAPACITY NOT GENERALLY USED DUE TO DIFFICULT IN-FLIGHT PATIENT CARE.			
C-17 GLOBEMASTER	USAF	MAXIMUM	36	102	3 AEROMED EVAC TECHS
		COMBINED	36	102	2 FLIGHT NURSES

Figure B-1. Service Component Transportation Assets

SERVICE COMPONENT TRANSPORTATION ASSETS					
NOMENCLATURE	SERVICE	CONFIGURATIONS	LITTER	AMBULATORY (SEATS)	ATTENDANTS
OTHER AIRCRAFT					
V-22 OSPREY (TILT-ROTOR)	USMC/USN	MAXIMUM	12	24	2 CORPSMEN
U-21 UTE	USA	MAXIMUM	3	10	1 MEDIC
		COMBINED	--	10	
C-12 HURON	USA USAF	MAXIMUM	2	8	
		COMBINED	--	8	
ROTARY-WING AIRCRAFT					
UH-1N IROQUOIS	USMC	MAXIMUM	6	12	1 CORPSMAN
		COMBINED	3	5	
CH-46 SEA KNIGHT	USMC/USN	MAXIMUM	15	22	2 CORPSMEN
		COMBINED	6	15	1 CORPSMAN
CH-53D SEA STALLION CH-53E SUPER SEA STALLION	USMC/USN	MAXIMUM	24	37 (55 WITH CENTER LINE SEATING)	2 CORPSMEN
		COMBINED	8	19	

Figure B-1. Service Component Transportation Assets (cont'd)

SERVICE COMPONENT TRANSPORTATION ASSETS					
NOMENCLATURE	SERVICE	CONFIGURATIONS	LITTER	AMBULATORY (SEATS)	ATTENDANTS
ROTARY-WING AIRCRAFT					
UH-60A BLACKHAWK	USA	MAXIMUM	6	7	1 MEDIC
		COMBINED	6	1	
UH-1H/V IROQUOIS	USA	MAXIMUM	6	9	
		COMBINED	3	4	
CH-47 CHINOOK	USA	MAXIMUM	24	33	
		COMBINED	8	19	
FIXED-WING AIRCRAFT					
C-2 (COD)	USN	MAXIMUM	NOT EQUIPPED	28	2 CORPSMEN
P-3 (SUB HUNTER)	USN	MAXIMUM	10	19	2 CORPSMEN
MEDICAL GROUND VEHICLES					
M170 4X4 FRONTLINE AMBULANCE (TO BE REPLACED BY M996/M1035)	NOT SERVICE UNIQUE	MAXIMUM	3	5	DRIVER ONLY
		COMBINED	2	3	1 CORPSMAN
M718 4X4 FRONTLINE AMBULANCE (TO BE REPLACED BY M996/M1035)	NOT SERVICE UNIQUE	MAXIMUM	3	4	DRIVER ONLY
		COMBINED	2	1	1 CORPSMAN
M1010 TRUCK, 4X4 AMBULANCE (TO BE REPLACED BY M997)	NOT SERVICE UNIQUE	MAXIMUM	4	8	1 CORPSMAN
		COMBINED	2	4	

Figure B-1. Service Component Transportation Assets (cont'd)

SERVICE COMPONENT TRANSPORTATION ASSETS					
NOMENCLATURE	SERVICE	CONFIGURATIONS	LITTER	AMBULATORY (SEATS)	ATTENDANTS
MEDICAL GROUND VEHICLES					
M792 TRUCK, 6X6 AMBULANCE	USA	MAXIMUM	3	6	DRIVER ONLY
		COMBINED	2	3	1 CORPSMAN
M996 TRUCK, 4X4 AMBULANCE ARMORED HMMWV-MINI	NOT SERVICE UNIQUE	MAXIMUM	2	6	1 CORPSMAN
		COMBINED	1	3	
M997 TRUCK, 4X4 AMBULANCE ARMORED HMMWV-MAXI	NOT SERVICE UNIQUE	MAXIMUM	4	8	1 CORPSMAN
		COMBINED	2	4	
M1035 TRUCK, 4X4 AMBULANCE SOFT-TOP HMMWV-MINI	NOT SERVICE UNIQUE	MAXIMUM	2	6	DRIVER ONLY
		COMBINED	1	3	1 CORPSMAN
BUS, AMBULANCE	NOT SERVICE UNIQUE	MAXIMUM	20	44	2 CORPSMEN
		CAPACITY VARIES BY SIZE OF BUS			
M113 CARRIER, PERSONNEL, FULL-TRACKED ARMORED, WITH LITTER CONVERSION KIT	USA	MAXIMUM	4	10	1 CORPSMAN
		COMBINED	2	4	
NONMEDICAL GROUND VEHICLES					
LAV 25, LIGHT ARMORED VEHICLE	USMC	MAXIMUM	0	4	CREW ONLY
LAVL, LIGHT ARMORED VEHICLE, LOGISTICS VARIANT	USMC	MAXIMUM	4	7	1 CORPSMAN

Figure B-1. Service Component Transportation Assets (cont'd)

SERVICE COMPONENT TRANSPORTATION ASSETS					
NOMENCLATURE	SERVICE	CONFIGURATIONS	LITTER	AMBULATORY (SEATS)	ATTENDANTS
AAV, LVPT-7 AMPHIBIOUS ASSAULT VEHICLE, LANDING VEHICLE PERSONNEL	USMC	MAXIMUM	6	21	1 CORPSMAN
NONMEDICAL GROUND VEHICLES					
M1008 4X4/4X2 TRUCK, CARGO	USA, USMC	MAXIMUM	5	8	1 CORPSMAN
M998 4X4 TRUCK CARGO/TROOP CARRIER	USA, USMC	MAXIMUM	5	6	
M813, M923 TRUCK, CARGO 5 TON	USA, USMC	MAXIMUM	12	20	
RAIL TRANSPORT					
PULLMAN CAR	US FORCES	MAXIMUM	32	48	1 NURSE
SLEEPING CAR	NATO/HOST-NATION SUPPORT (CAPACITY VARIES BY NATION)	MAXIMUM	32	32	
AMBULATORY RAILWAY CAR	NATO/HOST-NATION SUPPORT (CAPACITY VARIES BY NATION)	MAXIMUM	24	30	

Figure B-1. Service Component Transportation Assets (cont'd)

SERVICE COMPONENT TRANSPORTATION ASSETS					
NOMENCLATURE	SERVICE	CONFIGURATIONS	LITTER	AMBULATORY (SEATS)	ATTENDANTS
AMBULANCE RAILWAY CAR, PERSONNEL	NATO/HOST- NATION SUPPORT (CAPACITY VARIES BY NATION)	MAXIMUM	21	21	2 WARD ATTENDANTS
RAIL BUS	GERMANY	COMBINED	40	16	
WATERCRAFT					
LCVP, LANDING CRAFT, VEHICLE & PERSONNEL	USN	MAXIMUM	17	36	2 CORPSMEN
LCM-6, LANDING CRAFT MECHANIZED	USN	MAXIMUM	30	80	3 CORPSMEN
LCM-8, LANDING CRAFT MECHANIZED	USN	COMBINED LIT/AMB	50	200	
LCU, LANDING CRAFT UTILITY	USN	MAXIMUM	100	400	2 CORPSMEN (1 IN EACH CREW COMPARTMENT)
LCAC, LANDING CRAFT AIR CUSHION	USN	IN CREW SPACES	3	12	
					CORPSMEN AS NEEDED FOR CONFIGURATION

Figure B-1. Service Component Transportation Assets (cont'd)

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ANNEX A TO APPENDIX B

SUPPORTING AIR FORCE AE ELEMENTS AND TRANSPORTATION ASSETS

1. AE Unit Type Code Employment Concept

The role of the Theater Aeromedical Evacuation System (TAES) and associated assets is to support joint force operations with an AE system that can be deployed worldwide to provide support across the range of military operations. The AE unit type codes (UTCs) were developed based on the building block principle, which allows planners to select specific UTCs required to support a pending joint force operation or those used for developing operation plans. Each UTC was developed to support a specific command and control or operational requirement and has specific mission tasks and responsibilities. Equipment packages are designed to meet highly mobile but adequate conditions. As workload increases or is expected to increase, organization UTC packages (personnel and equipment) are replicated or combined with previously deployed UTCs at the locations needed. The total organizational scheme is to buy only what is needed to meet mission requirements, no more, no less, and to choose the package to meet the need. All functional requirements are addressed in each UTC. The TAES employs numerous UTCs to provide AE command, control, communications, patient care, and AE system support. The following sections provide a brief description of these UTCs.

2. Management and Administrative Support Elements

These UTCs provide personnel for those command, management, and oversight activities for AE forces operating within their assigned region which would normally be performed by a headquarters, (e.g., Major Command (MAJCOM), Numbered Air Forces). Functions which could be performed

by personnel assigned to these UTCs include: operational planning, training and standardization oversight, orderly room and/or administrative services, situation monitoring and/or reporting, status briefings and/or reporting, workload management and biostatistics, monitoring field maintenance support for assigned vehicles, aerospace ground and communications equipment, monitoring resupply and other logistics and/or resources for subordinate elements, policy oversight, medical augmentation management (when flight surgeons and/or intensivists are assigned to support AE missions), and other standard headquarters management activities. The UTCs outlined below can be deployed incrementally or as an integrated package to form the appropriate desired headquarters. Normally, a full AE Group management structure would consist of 1 advanced echelon (ADVON) UTC, 1 AE Support Cell, 1 Squadron Headquarters UTC, and 1 Group Headquarters UTC. The decision as to what to deploy will depend on a number of variables, such as the number of AE forces deploying, the number of operational sites employed within the theater and whether they can be managed more effectively from a single theater site or a regional management structure, where airlift management is provided (e.g., can intertheater missions be requested from a “regional” location, or Air Force component commander and/or Air Mobility Element other than at the theater level), and so forth.

a. **AE ADVON Team.** The eight-person AE ADVON team provides a cadre of personnel who can deploy in advance of other AE forces to arrange the required support for AE forces. The ADVON team advises the supported combatant commander, the joint force surgeon and command surgeon, or other appropriate personnel regarding AE

requirements. The AE ADVON Team also provides procedural and technical guidance regarding AE activities. This team can assume the management responsibility for coordination, command, and command support in a MOOTW which does not employ sufficient AE forces to require the establishment of a full AE Squadron or Group headquarters package. The senior member of the ADVON element serves as the senior AE representative to the joint force staff. This element also includes administrative, inflight medical, clinical and preventive medicine personnel, and computer-communications system personnel to provide a broad spectrum of expertise to lay the support foundation for follow-on forces and to identify follow-on AE force requirements.

b. AE Support Cell. This five-person element provides full-spectrum administrative, logistical, aerospace ground equipment, vehicle operations, and communications equipment maintenance support to sustain deployed AE operations. The support cell may deploy to augment any command, management, and administrative support UTC, the AECC, or may be deployed to a C-130 beddown base to facilitate movement between operational sites requiring maintenance support. The number of support cells deployed will depend on the number of AE assets deployed to the region requiring support. Because of the number of assets each support cell will be expected to support, one support cell will normally be deployed for theater command level assets with three support cells deployed to support each region.

c. Squadron Headquarters. The eight-person squadron headquarters UTC provides personnel augmentation to a theater group or regional management and headquarters staff support functions. This element may provide theater command and headquarters staff support if only a single squadron is required and a group headquarters is not established. This UTC consists of

additional administrative, inflight medical care, and radio operators to provide procedural and technical guidance and oversight for assigned, attached, or transiting AE activities. A full squadron headquarters element is established using this element in combination with an AE ADVON Team UTC and sufficient support cells to support deployed operational AE elements requiring aerospace ground equipment (AGE), communications maintenance, logistics, and vehicle dispatcher support.

d. Group Headquarters. This seven-person group headquarters UTC provides the personnel for theater management and headquarters support functions to manage a theater AE system. This UTC provides procedural and technical guidance and oversight for assigned, attached, or transiting AE activities. A full group headquarters element is established using this element in combination with an ADVON, a squadron headquarters, and sufficient support cells to support deployed AE elements requiring AGE and communications maintenance, logistics, and vehicle dispatcher support.

e. Patient Movement Items Centers. Five PMI centers will be established to support worldwide theater requirements. PMI centers are responsible for the overall management, in-transit visibility, and tracking of PMI. PMI centers will receive, refurbish (including technical inspection, calibration, repair, and provisioning with 3 days of expendable supplies), redistribute and return PMI collected from MTFs. PMI centers incorporate and support PMI cells. PMI cells are a flexible, preplanned subset of the PMI center capable of establishing a forward PMI equipment exchange location. PMI cells will support PMI exchange as far forward as theater AE patient movement is approved to operate. PMI cells will be deployed to forward operating locations to support one or more forward medical elements by pushing preplanned PMI to those locations.

3. Operational and Command and Control UTCs

These UTCs provide personnel and equipment for command and control of intratheater AE mission operations. Medical command and control elements within these UTCs function independently from the routine management functions of squadron and/or group headquarters. They will, however, provide operational and other reports to the group and/or squadron headquarters to support normal management oversight requirements. These elements may also be required to assume a primarily intertheater mission responsibility in selected situations, and thus their selection to support any joint force operation is not restricted to their intratheater mission.

a. **Aeromedical Evacuation Coordination Center (AECC).** This 19-person AECC UTC is the theater coordination center for all activities related to AE operations execution. The AECC is the operations center where the overall planning, coordinating, and directing of theater AE operations are accomplished. The AECC is a function of and is collocated with the ALCC, which is normally the theater's C2 function for all airlift operations. The AECC should be deployed simultaneously and independently from the ALCC. However, the AECC requires collocation with the ALCC and/or air mobility element (AME). Theater AECCs/TPMRCs coordinate with GPMRC for all intertheater mission requirements and theater AE missions using strategic assets. GPMRC in turn coordinates with USTRANSCOM MCC for all TACC airlift resources. AECCs are staffed for 24-hour operations. Depending on the theater concept, some of the AECC function may be integrated with the theater medical regulating function into a TPMRC. Specific responsibilities of the AECC include the following.

- Advising the JFACC, JFC staff and the joint air operations center director, on aeromedical issues when the headquarters management UTCs (e.g., Advanced Cadre [ADVON], Squadron or Group headquarters), are not deployed.
- Coordinating with the ALCC or AME for airlift to match requests for patient AE with available resources.
- Coordinating the selection and scheduling of theater airlift aircraft allocated for aeromedical evacuation missions.
- Assigning AE missions to appropriate AE units and/or elements.
- Monitoring intratheater AE crew and related equipment availability.
- Matching resources (personnel, equipment, and supplies) to the clinical requirements.
- Maintaining statistical data and providing reports.
- Serving as the AE communications net control station.
- Coordinating intertheater AE support requirements with the TACC.
- Communicating airlift mission information with supporting AE elements.
- In MOOTW, where the AECC is the only AE element deployed, it may also serve as the reception point within the AO.

b. **Aeromedical Evacuation Liaison Team.** The AELT is a six-person UTC which provides a direct communications link and

immediate coordination between the user Service originating requirements for AE and the AECC. AELTs, which generally consist of two Medical Service Corps officers, three radio operators, and a flight nurse are under OPCON of the JFACC, who controls AE mission execution through the AECC. Command relationships will be as outlined by the theater Air Force component commander. Transient AELTs solely supporting intertheater mission requirements normally remain under OPCON of the Commander, AMC/TACC. Normally, command and management oversight will be exercised by the designated theater AE commander (if a regional headquarters structure is not established), a regional squadron headquarters, or Aeromedical Evacuation Operations Element (AEOT)/MASF (if a regional squadron headquarters is not established). AELTs are normally located at the echelon of the user Service where patient movements are authorized. Depending on the tactical operation being supported, AELTs can be collocated directly with a field medical facility or at any other level of command to ensure a smooth and coordinated patient flow into the AE system. In addition, the AELT can be used at any AE element as a communications team as operations dictate. AELTs are normally used only during contingency operations. The function and responsibilities of the AELTs include the following.

- Coordinating casualty movement requests and subsequent movement activities between the AECC and the user Service.
- Determining time factors involved for the user Service to transport casualties to the designated staging facility, and coordinating patient transfer information with the MASF/ASTS.
- Determining and reporting requirements for special equipment and/or medical

attendants to accompany casualties during flight.

- Educating and assisting supported MTFs with AE patient preparation instructions.

c. Mobile Aeromedical Staging Facility.

The MASF is a 39-person mobile, tented, temporary staging facility deployed to provide supportive casualty care and administration. Each MASF is capable of routinely holding and processing 50 patients at any given time. It is not intended to hold casualties overnight or for an extended period. Patients can generally be held from two to six hours. Normally, a MASF will be capable of cycling its patient load four times within a 24-hour period. MASFs are located near runways or taxiways of airfields or forward operating bases that are used by theater airlift aircraft to resupply combat forces. The MASF does not have any organic beds; therefore, patient holding is accomplished using the litters on which the patients were brought to the facility. Each MASF deploys with sufficient supplies and equipment to sustain its casualty staging operation for five days. If it is to be deployed for a longer period or is expected to receive more casualties than normal, it must be resupplied. The MASF is dependent upon the host base for food, potable water, billeting, petroleum, oil, and lubricants, and other general support. MASF manning typically includes flight nurses, one Medical Service Corps officer, aeromedical evacuation and administrative technicians, flight surgeons, and radio operators. The senior flight nurse serves as the officer in charge and reports to the regional squadron headquarters, theater AE group and/or squadron headquarters, AECC, or an AEOT as appropriate. MASFs are neither staffed nor equipped to accomplish certain patient support activities. As a result, the originating medical facility must provide the support for transportation of patients to and from the airfield, litters and litter straps, special supplies and equipment required for

patients in flight, meals, and any required guards or attendants (medical or non-medical). When advance notification is given to the AELT, some PMI may be brought forward. A MASF performs the following functions.

- Receives patients designated for aeromedical evacuation from user Service forward medical treatment facilities.
- Provides supportive medical and/or nursing care to patients awaiting airlift.
- Prepares patient manifests (if not yet accomplished by the user Service), patient aircraft load plans; performs anti-hijacking inspections; and provides support on a limited basis.
- Assists AE crews in configuring the aircraft to receive litter and ambulatory patients.
- Notifies AECC when an AE aircraft has departed.
- Functions as an AEOT when one is not collocated.
- Provides status and/or capability reports to the AECC.
- Provides manpower to upload and/or download AE aircraft in conjunction with the medical crew.

d. **AE Crews (Intratheater).** Intratheater AE crews UTCs consists of five personnel, which includes two flight nurses and three aeromedical technicians. However, the crew may be tailored as the mission dictates. Additional crew members are often assigned to missions with over 50 patients. AE crews provide inflight medical care aboard the evacuation aircraft, control and monitor patient onloading and off-loading, and ensure

that aircraft are properly configured. This basic crew can be tailored through the addition of an AE-trained flight surgeon (clinical authority for flight), additional crew members, and may be supplemented by medical attendants. Flight surgeons who fly for familiarization and preventative medicine functions are primary crew members aligned with the operations crew of the aircraft instead of the AE crew. Their aeromedical skills may be used by the AE crew as needed, and they will serve as the clinical authority for the flight if an AE flight surgeon is not part of the crew. Other physicians and other medical personnel are added as dictated by individual patient needs and fly as medical attendants. During contingency operations, the MCD and the Charge Medical Technician will maintain responsibility for mission management and aircraft specific medical equipment. The other AE crew members may be qualified in either the C-130 or C-141 and may log flying hours.

e. **AE Crew Management.** Intratheater AE crews will normally be individually managed by the MASF, AE crew management (AECM) cell, or AEOT supporting the airfield at which the AE crew is assigned, attached, or transiting. Assigned and/or attached AE crews can be organizationally aligned under an AE Operations Squadron (AEOS) to provide a single point manager locally for AE support activities at a base. Under this arrangement, the AEOS will have staging, mission support, and patient movement functions under a single manager. Regardless of type of aircraft, medical crew composition will be sufficient to furnish the required medical support consistent with patient requirements. While on a mission, each AE crew is a self-contained unit under the supervision of a flight nurse designated the MCD. While on a mission, the MCD is responsible for patient care in coordination with the clinical authority. The MCD coordinates with the aircraft commander and AECC for mission management. The MCD, in coordination with the AECC/AEOT, is

responsible for ensuring that the AE crew and related equipment is returned to its originating or stage and/or beddown location, as well as for securing and retaining all associated medical supplies and equipment. The assigned MCD is responsible for the medical aspects of a mission; the aircraft commander is responsible for operational aspects of a mission. When AE crew personnel are not performing operational flying duties or in crew rest, they may be assigned ground support duties, e.g., to an AEOT or MASF.

f. AE Crew Management Cells. AE crew management cells provide personnel for direct supervision and crew management of assigned, attached, and transiting AE crews. For intratheater AE crew management, these cells can be deployed to C-141, AE CRAF, and C-130 AE crew beddown locations, MASFs, an existing aeromedical evacuation squadron, or to a regional headquarters location. Crew management cells can also be deployed independently to airheads to support AE operations when a small number of AE crews will be employed, or in lieu of another AE element (MASF/AELT) when the operations tempo is expected to be minimal and employment of a full or partial element is not warranted.

g. Aeromedical Evacuation Operations Team. AEOTs normally deploy to Main Operating Bases to support the transfer of patients from the Theater Air Evacuation System to strategic AE assets for transportation out of theater. AEOTs provide launch, recovery, and mission management for AE missions, crews, and equipment. The degree to which strategic and theater AE systems must interface makes it difficult to characterize support structures as primarily focused on one or the other. Specific responsibilities of the AEOT include AE crew management, AE mission support activities, and management of AE equipment and supplies, to include assisting with the return

of AE kits and AE crew members to their stage and/or beddown locations. Normally, AEOTs are used only during contingency operations. In peacetime, AEOT functions may be performed by one of the existing AES or AE personnel assigned to designated primary reception airfields (e.g., Andrews, Kelly, Travis). The AEOT can be organizationally aligned with the Aeromedical Staging Facility under an AE Operations Squadron to provide a single manager locally for AE support activities at a base. Under this arrangement, the AEOTs will have staging and mission operations functions under a single manager. If a regional Squadron Headquarters management structure is not established, the AEOT can be designated by the geographic combatant commander with management support responsibilities for other AE elements operating in their vicinity, e.g., crew management cells, MASFs, AELTs, AE crews.

h. Aeromedical Staging Squadron. An ASTS is a medical facility (50 to 250 beds) located on or near air bases or airstrips normally designated for intertheater AE interface. ASTSs provide patient reception, administrative processing, ground transportation, feeding, and limited medical care for patients entering, en route, or leaving the aeromedical evacuation system. ASTSs perform all of the functions of a MASF, except that they are not readily mobile and have organic holding capability, and can thus hold patients longer. In addition, ASTSs have physicians assigned. The ASTS can be organizationally aligned with the AEOT under an AE Operations Squadron to provide a single manager locally for AE operations activities at a base. Under this arrangement, the AEOTs will have staging and mission functions under a single manager.

i. Aeromedical Evacuation Crews (Intertheater). Intertheater AE crews UTC consists of five personnel, which includes two flight nurses and three aeromedical

technicians. The basic crew may be augmented with flight surgeons and critical care assets as the mission requires. The number of UTCs needed to support a given operation varies widely based on such planning factors as the type of aircraft used, projected casualty loads, and flying times involved. Regardless of type of aircraft, AE crew composition will be sufficient to furnish the required medical support consistent with patient requirements. AE crews provide inflight supportive nursing care aboard the evacuation aircraft, control and monitor patient onloading and/or off-loading, and ensure that aircraft are properly configured. Physicians and other medical personnel are not part of a standard AE crew, but they can be added as dictated by individual patient needs. The basic crew can be tailored through the addition of an AE-trained flight surgeon (clinical authority for flight) or additional crew members and may be supplemented by medical attendants. Flight surgeons who fly for familiarization and preventive medicine functions are primary crew members aligned with the operations crew of the aircraft instead of the AE crew. Their aeromedical skills may be used by the AE crew as needed and they will serve as the clinical authority for the flight if an AE flight surgeon is not part of the crew. Other physicians and medical personnel are added as dictated by individual patient needs and fly as medical attendants.

j. **AE Crew Management.** Intertheater AE crews will normally be individually managed by TACC when supporting intertheater operations and/or en route support system. While on a mission, each AE crew is a self-contained unit under the supervision of a flight nurse designated as the MCD. While on a mission, the MCD is responsible for patient care in coordination with the clinical authority. The MCD coordinates with the aircraft commander and AECC for mission management. The MCD, in coordination with the TACC/AECC/

AEOT, is also responsible for ensuring that the crew and related equipment is scheduled to return to its originating or stage and/or beddown location, as well as for securing all associated medical supplies and equipment. When AE crew personnel are not performing operational flying duties or in crew rest, their commander may assign them to ground support duties. At a minimum AECMs must be certified in the mission design series (MDS) aircraft used for operational AE missions, and will maintain responsibility for mission management and aircraft-specific medical equipment. AECMs who are current and qualified in another MDS may log flying hours during AE missions flown on aircraft in which they maintain certification.

4. Theater Airlift Resources

The primary Air Force aircraft available to support theater aeromedical evacuation are the C-130 and C-9. US European Command and US Pacific Command have theater assigned C-9 aircraft which can be operated at improved airfields. US Southern Command has C-27 aircraft. The geographic combatant commander exercises combatant command (command authority) over theater-assigned forces and normally exercises OPCON over theater-assigned or attached forces through the JFACC, who allocates forces to meet operational requirements. The C-130 operates either as preplanned, retrograde, or opportune AE and is the primary aircraft for moving patients from and within the combat zone. C-9 aircraft operate as dedicated AE and will move patients primarily within the COMMZ, using undamaged and relatively safe airfields such as those planned as intertheater airlift recovery bases. Preplanned AE can be scheduled in either a preconfigured or retrograde operation at the discretion of the geographic combatant commander and the theater's JMC. When using retrograde, the aircraft flies into an airfield, off-loads the cargo and/or passenger load, and is

reconfigured for AE on the return, or retrograde leg. Retrograde aircraft utilize litter configuration equipment organic to the aircraft. To use preplanned airlift, the geographic combatant commander must apportion theater airlift for the AE mission. These aircraft can then be configured for AE prior to mission origination. Dedicated and preconfigured preplanned aircraft enable AE mission planners to use the same aircraft to make multiple stops, facilitate scheduling of the mission(s) to meet AE requirements (e.g., increased flexibility with Aerial Port of Embarkation and/or Aerial Port of Debarkation selection), and permit an increased litter AE configuration. However, using preconfigured preplanned AE does reduce the number of airframes available to the geographic combatant commander for other missions. Aircraft characteristics for theater support aircraft are outlined below. Patient stability may dictate changes in the mix of patients to crew members, crew augmentees, and medical attendants affecting standard planning assumptions.

a. **C-130 Hercules.** The C-130 is a high wing, four-engine turboprop aircraft. For AE purposes, it is predominantly used for intratheater rather than intertheater or CONUS (domestic) evacuation. AE planning factor is for 50 patients. The fuselage is divided into the cargo compartment and the flight deck. It can be fully pressurized, heated, and air conditioned. The C-130 can maintain a sea-level cabin altitude at an ambient altitude of 19,000 feet and an 8,000 foot cabin altitude at an ambient altitude of 35,000 feet. It can land and take-off on short runways, which allows rapid transportation of personnel and equipment. The C-130 can be readily configured for aeromedical evacuation by using seat and litter provisions stowed in the cargo compartment. It can hold a maximum of 74 litters, depending on the availability and serviceability of inherent equipment and the model of the aircraft, 92 ambulatory patients and/or medical crew

members, or a variety of combinations of litter and ambulatory. The C-130 poses several constraints for AE operations. These include cabin noise which make patient evaluation difficult and inadequate lighting for many patient care activities. The aircraft oxygen system needs to be supplemented by a self-contained AE system for therapeutic oxygen delivery. The single lavatory is on the cargo ramp and is impossible for some otherwise ambulatory patients to use. During engine-running onload and off-load operations at unimproved airfields, blown objects and dust can present eye hazards and stress to crew and patients.

b. **C-9 Nightingale.** The C-9 is a military version of the DC-9 commercial aircraft. The T-tailed aircraft is powered by twin, aft-mounted jet engines and cruises at 500 mph. It has a range in excess of 2,000 miles. The C-9 is the Air Force's only dedicated AE aircraft specifically designed for aeromedical evacuation. An integral folding ramp enables efficient enplaning and deplaning of litter patients. The C-9 can hold a maximum of 40 litter patients, or 40 ambulatory patients, or a variety of combinations of litter and ambulatory.

c. **C-27 Spartan.** The C-27 is a twin-engine turboprop aircraft. The C-27A can deliver conventional combat equipment and troops into austere airfields and onto marked or unmarked assault zones. The C-27 is also known for its short take-off and landing capability and is predominantly used for intratheater missions for US Southern Command. The C-27 can hold a maximum of 24 litter patients or 30 ambulatory patients. It has a cruising altitude of 22,000-25,000 feet at a speed of 240 knots true air speed. Patient oxygen is supplied by a dedicated 10 liter liquid oxygen unit. Aircraft cabin pressure follows ambient pressure up to 3,600 feet. When cruising above 19,200 feet, cabin altitude is automatically increased to maintain a cabin differential pressure of 6

psi. When flying at altitudes above 3,600 feet, the C-27 must be manually depressurized prior to landing, which may result in an uncomfortable pressure change for patients.

5. Intertheater Airlift Resources

The primary Air Force aircraft available to support intertheater aeromedical evacuation are the C-141 and C-17 aircraft. The commander AMC TACC normally has OPCON of these resources and allocates airframes to meet operational requirements. As with theater airlift resources, airlift can be scheduled in either a preplanned, retrograde, or dedicated, role as outlined above in Theater Airlift Resources. AE CRAF aircraft would normally be dedicated.

a. **C-141 Starlifter.** The C-141 is a long-range, high speed, high-altitude aircraft designed for the airlift of combat support equipment, troops, or aeromedical evacuation of patients. It is powered by four jet engines and cruises at a speed of about 550 mph with an unrefueled range in excess of 5,250 miles. When used for aeromedical airlift, a self-contained comfort pallet can be placed in the forward section of the cargo compartment. Operational planning factor is 60 patients. At present, because of its long-range capability it is primarily considered to support intertheater aeromedical airlift.

b. **C-17 Globemaster III.** The C-17 is the nation's newest operational strategic airlifter capable of transporting patients. It is powered by four turbofan engines and cruises at about 550 mph with an unrefueled range in excess of 5,250 miles. The C-17 has three aeromedical stations stowed on the sidewall to accommodate 12 litters, and nine additional litter stations can be installed to transport a total of 48 litter patients. Five therapeutic oxygen outlets are provided, and there are twelve designated aeromedical utility receptacles for electrical power.

6. Civil Reserve Air Fleet

In order to overcome shortfalls in fulfilling wartime AE requirements with retrograde airlift, USCINCTrans, in conjunction with a number of airlines and the Department of Transportation, can activate the AE CRAF segment to provide aircraft dedicated to the strategic AE mission. The CRAF is composed of civil air carriers who contractually commit themselves to provide operating and support personnel, facilities, and aircraft to USCINCTrans under stated conditions. The primary aircraft to be provided to support aeromedical airlift is the Boeing 767. Once activated, each Boeing 767 would be reconfigured from its passenger configuration to an aeromedical configuration. With airline delivery time factored in, planning estimate is 72 hours from notification to the airlines to deliver an aircraft until the aircraft can be reconfigured. Since the AE CRAF is a dedicated AE aircraft, planning factors to be used when moving stable patients is 120 ambulatory-only patients per mission and 100 patients per mission when moving litter-only stabilized patients. Each Boeing 767 so configured would remain in the AE system until such time that the operation no longer required it.

7. Non-Traditional AE Aircraft

Instances may occur that require the use of aircraft other than those normally on AE operations (C-5, KC-10, KC-135, C-21, C-12, helicopters). AE missions can be flown on these aircraft with careful planning consideration for the loading and unloading of patients and placement of patients during flight. On those occasions when AECMs may be required to accompany patients on nontraditional aircraft, AECMs should work closely with the flight crew and receive, at a minimum, a briefing on emergency egress, oxygen, and electrical system capability as it

relates to patient and/or emergency use. Guidelines followed on other AE missions should be observed as much as possible. AECMs should refer to AE regulations for further guidance on utilizing specific aircraft.

8. Ambulance Bus (AMBUS)

The AMBUS is organic to the table of allowance for contingency hospitals and ASTSs. The AMBUS has an inherent capability to transport 12 litter or a combination of litter and ambulatory patients from 4 litter and 24 ambulatory up to 12 litter and 0 ambulatory.

ANNEX B TO APPENDIX B

SUPPORTING ARMY EVACUATION ELEMENTS AND REQUEST PROCEDURES

1. General

Within an operational area, patients are collected, triaged, treated, and returned to duty as far forward as possible. The patients are evacuated to the MTF most capable of providing the required treatment in the shortest possible time. The level of evacuation activity is dependent upon combat intensity, environmental conditions, terrain, and other special circumstances.

2. Echelons of Evacuation

Patient evacuation of casualties in the TO occurs from the company aid post at the forward line of own troops (FLOT) rearward through successive echelons of care to the General Hospital in the COMMZ.

3. Medical Evacuation Units

Evacuation is accomplished by medical evacuation units found at corps level. There are three units; the Medical Evacuation Battalion, the Air Ambulance Company, and the Ground Ambulance Company.

a. Medical Evacuation Battalion

- **Configuration.** The Medical Evacuation Battalion consists of 300 personnel, is 100% mobile, and is allocated as one Headquarters and Headquarters Detachment (HHD) per a combination of three to seven subordinate air or ground ambulance companies. It is assigned to the Theater Army Medical Command in the COMMZ, or Medical Brigade in the corps. Normally it is attached to Medical Brigade in the COMMZ, or Medical Group in the corps.

- **Mission.** The Medical Evacuation Battalion's mission is to provide command and control of air and ground medical evacuation units within the TO. In doing so, it coordinates the evacuation of all classes of patients and delivers them to MTFs for definitive medical care.

- **Capabilities.** The Medical Evacuation Battalion provides the following.

- Command, control, and supervision of operations, training, and administration of a combination of three to seven air or ground ambulance companies.

- Coordination of medical evacuation operations and communications on a 24-hour, two-shift basis.

- Staff and technical supervision of vehicle and aircraft management, safety, and Aviation Unit Maintenance.

- Medical supply support to attached units.

- E1 HSS and aviation medicine.

- Unit level maintenance on vehicles, generators, and communication equipment.

- Defense and protection of their own persons along with the sick, injured, and wounded in their care.

b. Air Ambulance Company

- **Configuration.** The Air Ambulance Company consists of 15 aircraft and 131 assigned personnel. The aircraft currently used are UH-1V Iroquois or

UH-60A Blackhawk Utility Helicopters. Each Iroquois is capable of carrying six litter or nine ambulatory patients, or some combination thereof. A litter-only configuration for 15 Iroquois aircraft results in a total lift capacity of 90 patients. An ambulatory-only configuration for 15 Iroquois aircraft results in a total lift capacity of 135 patients. Each Blackhawk is capable of carrying either six litter patients and one ambulatory patient, seven ambulatory patients, or some combination thereof. A litter-only configuration for 15 Blackhawk aircraft results in a total lift capacity of 105 patients. The Air Ambulance Company is assigned to the Medical Brigade and normally further attached to an HHD, Medical Evacuation Battalion. It is 100% mobile and is allocated as follows.

- 1.0 per division in direct support.
- 0.333 per brigade or Armored Cavalry Regiment (ACR).
- 1.0 per two divisions in general support in the corps.
- 1.0 per theater in support of hospital ships.

(NOTE: Communications zone rules for allocation of units are derived from the geographic combatant commander, based on the unit's mission requirements and geographical dispersion.)

- **Mission.** The Air Ambulance Company's mission is to provide AE and support within the TO.
- **Capabilities.** A typical Air Ambulance Company provides the following.
 - Fifteen air ambulances to evacuate patients consistent with evacuation

priorities and operational considerations, from points as far forward as possible to E1 and E3 MTFs.

- The capability to breakdown into a Medical Evacuation Section, with six air ambulances for area support at the Main Support Medical Company and three Forward Support Teams of three air ambulances each for the Forward Support Medical Companies.
- Air crash rescue support, less fire suppression, in combat search and rescue operations.
- Rapid delivery of whole blood, biologicals, and medical supplies to meet critical requirements.
- Rapid movement of medical personnel and their accompanying equipment and supplies to meet the requirements of Mass Casualty, reinforcement and/or reconstitution, or emergency situations.
- Movement of patients between hospitals, ASTSs, MASFs, seaports or railheads in both the corps and echelons above corps.
- Defense and protection of their own persons along with the sick, injured, and wounded in their care.
- Aviation unit maintenance on all organic aircraft and unit maintenance on all equipment less medical.
- Supplemental food service personnel to augment supported unit's food service assets.

c. **Ground Ambulance Company**

- **Configuration.** The Ground Ambulance Company consists of 40

ground ambulances and 124 assigned personnel. The ground ambulance currently used is the W/E M1009 3/4 ton tactical utility truck. Each ambulance is capable of carrying either four litter patients, eight ambulatory patients, or some combination thereof. A litter-only configuration for 40 ambulances results in a total lift capacity of 160 patients. An ambulatory-only configuration results in a total lift capacity of 320 patients. The Ground Ambulance Company is assigned to the Medical Brigade and is normally further attached to an HHD, Medical Evacuation Battalion. It is 100% mobile and is allocated as follows.

- 0.333 per separate brigade or ACR.
- 1.0 per division supported.
- 1.0 per corps supports in the COMMZ.
- **Mission.** The Ground Ambulance Company's mission is to provide ground evacuation of patients within the TO.
- **Capabilities.** The Ground Ambulance Company provides the following.
 - Forty ground ambulances to evacuate patients (consistent with evacuation priorities and operational considerations) from division and area support medical companies, from points as far forward as possible to E2 and E3 MTFs.
 - Reinforcement of division medical company assets when required.
 - Reinforcement of covering force and deep battle operations.
 - Movement of patients between hospitals, ASTSs, MASFs, seaports or

railheads in both the corps and echelons above corps.

- Area evacuation support beyond the capability of the area support medical battalion.
- Emergency movement of medical supplies.
- Defense and protection of their own persons along with the sick, injured, and wounded in their care.
- Unit level maintenance on wheeled vehicles and communications equipment.

4. Evacuation Request Procedures

a. **General Instructions.** Procedures for requesting medical evacuation support must be formally organized down to the unit level. The same format is used for requesting both aeromedical and ground evacuation. Before initiating an evacuation operation, a unit must have an evacuation plan in effect. The plan may be standing operating procedures (SOPs) or it may be designed for a particular operation. The plan must be published and may be in a variety of forms, depending on the level of headquarters and the amount of detail required. For example, it may be in the form of verbal instructions at the squad or platoon level, a comment in the signal operating instructions (SOI), or a paragraph in the unit operation order. The unit evacuation plan should identify the following.

- Primary and alternate channels to be used in submitting the request.
- Primary and alternate evacuation routes.
- The type of evacuation transportation to be used. The three types available are litter, ground ambulance, and air ambulance.

- The location of the destination MTF, if predesignated.

b. Medical Evacuation Patient Precedence Assignments. Assignment of patient evacuation precedence is necessary and is made by the senior military person present based on the advice of the senior medical person at the scene and the tactical situation. Precedence assignment provides the supporting medical unit and the controlling headquarters with information to be used in decision making as regards the use of their evacuation assets. Patients are evacuated as soon as possible consistent with available resources and pending missions. Patient precedence and the criteria used in their assignment are as follows.

- **Priority I — URGENT.** Patients that require emergency, short notice evacuation within a maximum of 2 hours to save life, limb, or eyesight and to prevent serious complications of the injury, serious illness, or permanent disability.
- **Priority IA — URGENT-SURGICAL.** Patients that require far forward surgical intervention to save life and stabilization for further evacuation.
- **Priority II — PRIORITY.** Patients that require prompt medical care, within a maximum of 4 hours, to prevent the medical condition from deteriorating to an URGENT precedence, to prevent unnecessary pain or disability, or who require treatment not available locally.
- **Priority III — ROUTINE.** Patients who do not require immediate medical attention and whose condition is not expected to deteriorate significantly. They should be evacuated within 24 hours.
- **Priority IV — CONVENIENCE.** Patients for whom evacuation by medical

vehicle is a matter of medical convenience rather than necessity.

c. Unit Responsibilities in Evacuation.

A request for medical evacuation places certain responsibilities on the requesting unit. To prepare for and assist evacuation operations, the unit must complete the following.

- Ensure that the tactical situation permits evacuation and that the patients and patient information are ready when the request is submitted.
- Provide an English-speaking representative at the pickup site when the evacuation is requested for non-US personnel.
- Receive backhauled medical supplies and report the type, quantity, and where they were delivered.
- Move the patients to the safest aircraft approach and departure point or ambulance exchange point, if evacuation is by air.
- Ensure that ground crew personnel are familiar with the principles of helicopter operation. The ground crew:
 - Selects and prepares the landing site;
 - Loads and unloads the helicopter according to the pilot's instructions;
 - Briefs the pilot on the position of the enemy troops and directs him to other units in the area if asked;
 - Guides the helicopter using hand signals during landing and takeoff when the tactical situation permits; and
 - Marks friendly positions when armed helicopter escort is provided.

d. Medical Evacuation Request Formats and Procedures. The medical evacuation request is used for requesting evacuation support for both air and ground ambulances. There are two established medical evacuation formats and procedures: one for wartime use and one for peacetime use. The differences that exist between these two formats are noted in lines 6 and 9 in Figure B-B-1. Additionally, under all non-war conditions clear text transmissions of medical evacuation requests are authorized. During wartime, evacuation requests are transmitted by secure means only.

e. Transmission of the Request. Medical evacuation requests should be made to the medical unit that controls evacuation assets, by the most direct communications means available. The communications means and the channels used will depend on factors such as the organization, location on the battlefield, distance between units, and the communications means available at the time. Primary and alternate channels to be used are specified in the unit evacuation plan.

- **Transmission Security.** Wartime conditions dictate that all requests be transmitted by secure means only. If secure communications equipment is used, requests may be transmitted in CLEAR TEXT. If nonsecure communications equipment is used, requests must be transmitted in encrypted form. The only exceptions are the line numbers and the call sign and suffix on line 2 of Figure B-B-1. Regardless of the type of communications equipment used in transmission, it is necessary to:

- Make the proper contact with the intended receiver;
- Use the effective call sign and frequency assignments from the SOI;
- Provide the opening statement: “I HAVE A MEDEVAC REQUEST”;

- Transmit line numbers 1 through 5 of Figure B-B-1 first;

- Use the proper radio procedure;

- Keep transmission time to 25 seconds or less;

- Pronounce the letters and numerals IAW standard radio procedures (example: Line one. TANGO PAPA FOUR SIX FIVE THREE SEVEN NINER); and

- Monitor the frequency (Figure B-B-1, line 2 of request) to wait for additional instructions or contact from the evacuation vehicle.

- **Receiver Acknowledgment.** After the opening statement is made, the transmitter breaks for acknowledgment. Authentication is done by the transmitting or receiving unit IAW the tactical SOP.

f. Relaying Requests. If the unit receiving the request does not control the evacuation means, it must relay the request either to the headquarters or unit that has control or to another relaying unit. When the relaying unit does not have access to secure communications equipment, the request must be transmitted in encrypted form. The methods of transmission and specific units involved depends on the situation. Regardless of the method of transmission, the unit relaying the request must ensure that it relays the exact information originally received, and that it is transmitted by secure means only. The radio call sign and frequency relayed (Figure B-B-1, line 2 of the request) should be that of the requesting unit and **not** that of the relaying unit. If possible, intermediate headquarters or units relaying requests will monitor the frequency specified in Line 2. This is necessary in

DESCRIPTION OF MEDICAL EVACUATION REQUEST PREPARATION				
LINE ITEM	FORMAT	SOURCE	NORMAL SOURCE	REASON
1 Location of pickup site	Encrypt the grid coordinates of the pickup site. When using the DRYAD Numeral Cipher, the same "SET" line will be used to encrypt the grid zone letters and the coordinates. To preclude misunderstanding, a statement is made that grid zone letters are included in the message (unless unit SOP specifies its use at all times).	From Map	Unit leader(s)	Required so evacuation vehicle knows where to pick up patient. Also, so that the unit coordinating the evacuation mission can plan the route for the evacuation vehicle (if the evacuation vehicle must pick up from more than one location).
2 Radio Frequency, Call Sign, and Suffix	Encrypt the frequency of the radio at the pickup site, not a relay frequency. The call sign (and suffix if used) of the person to be contacted at the pickup site may be transmitted in the clear.	From SOI	RTO	Required so that evacuation vehicle can contact requesting unit while en route (obtain additional information or change in situation or directions).
3 Number of patients by precedence	Report only applicable information and encrypt the brevity codes. A - URGENT B - URGENT-SURG C - PRIORITY D - ROUTINE E - CONVENIENCE If two or more categories must be reported in the same request, insert the word "BREAK" between each category.	From evaluation of patient(s)	Medic or senior person present	Required by unit controlling the evacuation vehicles to assist in prioritizing missions.
4 Special Equipment Required	Encrypt the applicable brevity codes. A - None. B - Hoist. C - Extraction equipment. D - Ventilator.	From evaluation of patient or situation	Medic or senior person present	Required so that the equipment can be placed on board the evacuation vehicle prior to the start of the mission.

Figure B-B-1. Description of Medical Evacuation Request Preparation

DESCRIPTION OF MEDICAL EVACUATION REQUEST PREPARATION				
LINE ITEM	FORMAT	SOURCE	NORMAL SOURCE	REASON
5 Number of patients by type	Report only applicable information and encrypt the brevity code. If requesting MEDEVAC for both types, insert the word "BREAK" between the litter entry and the ambulatory entry. L+# of Pnt - Litter A+# of Pnt - Ambulatory (sitting)	From evaluation of patient(s)	Medic or senior person present	Required so that the appropriate number of evacuation vehicles may be dispatched to the pickup site. They should be configured to carry the patients requiring evacuation.
6 (Wartime) Security of Pickup Site	N - No enemy troops in area. P - Possible enemy troops in area (approach with caution). E - Enemy troops in area (approach with caution). X - Enemy troops in area (armed escort required).	From evaluation of the situation	Unit leader	Required to assist the evacuation crew in assessing the situation and determining if assistance is required. More definitive guidance can be furnished the evacuation vehicle while it is en route (specific location of enemy to assist an aircraft in planning its approach).
6 (Peacetime) Number and Type of Wound, Injury, or Illness	Specific information regarding patient wounds by type (gunshot or shrapnel). Report serious bleeding, along with patient blood type, if known.	From evaluation of patient	Medic or senior person present	Required to assist evacuation personnel in determining treatment and special equipment needed.
7 Method of Marking Pickup Site	Encrypt the brevity codes. A - Panels. B - Pyrotechnic signal. C - Smoke signal. D - None. E - Other.	Based on situation and availability of materials.	Medic or senior person present	Required to assist the evacuation crew in identifying the specific location of the pickup. Note that the color of the panels or smoke should not be transmitted until the evacuation vehicle contacts the unit (just prior to its arrival). For security, the crew should identify the color and the unit verify it.

Figure B-B-1. Description of Medical Evacuation Request Preparation (cont'd)

DESCRIPTION OF MEDICAL EVACUATION REQUEST PREPARATION				
LINE ITEM	FORMAT	SOURCE	NORMAL SOURCE	REASON
8 Patient Nationality and Status	The number of patients in each category need not be transmitted. Encrypt only the applicable brevity codes. A - US military. B - US civilian. C - Non-US military. D - Non-US civilian. E - EPW	From evaluation of patient	Medic or senior person present	Required to assist in planning for destination facilities and need for guards. Unit requesting support should ensure that there is an English-speaking representative at the pickup site.
9 (Wartime) NBC Contamination	Include this line only when applicable. Encrypt the applicable brevity codes. N - Nuclear. B - Biological. C - Chemical.	From situation	Medic or senior person present	Required to assist in planning for the mission. (Determine which evacuation vehicle will accomplish the mission and when it will be accomplished).
9 (Peacetime) Terrain Description	Include details of terrain features in and around proposed landing site. If possible, describe relationship of site to prominent terrain feature (lake, mountain, tower).	From area survey	Personnel at site	Required to allow evacuation personnel to assess route/avenue of approach into area. Of particular importance if hoist operation is required.

Figure B-B-1. Description of Medical Evacuation Request Preparation (cont'd)

the event contact is not established by the medical evacuation unit, vehicle, or aircraft with the requesting unit.

5. Medical Evacuation Request and After-Action Record

Once the evacuation mission is completed, an after-action record of the mission should be completed. This will provide historical data and

lessons learned information. It can also be used as a management tool for ensuring that medical evacuation missions are properly equipped and performed in a timely manner. Additionally, it provides information on the patient's condition and procedures accomplished which may have a bearing on either administrative or legal proceedings. A sample of this record is shown in Figure B-B-2.

MEDICAL EVACUATION/AFTER-ACTION RECORD				
DTG RECEIVED	CALL SIGN	AIR/GROUND	UNIT MISSION / MISSION NUMBER	
ITEM	CLEAR/ DECRYPTED	ENCRYPTED	BREVITY CODE	ACTUAL INFORMATION
1 LOCATION OF PICKUP SITE				
2 FREQUENCY/CALL SIGN SUFFIX AT PICKUP SITE				
3 NUMBER OF PATIENTS BY PRECEDENCE			A - URGENT B - URGENT-SURG C - PRIORITY D - ROUTINE E - CONVENIENCE	
4 SPECIAL EQUIPMENT			A - NONE B - HOIST C - EXTRACTION EQUIP D - VENTILATOR	
5 NUMBER OF PATIENTS BY TYPE			L + # OF PNT - LITTER A + # OF PNT AMB (SITTING)	
6 SECURITY OF PICKUP SITE*			N - NO ENEMY TROOPS P - POSSIBLE ENEMY TROOPS (CAUTION) E - ENEMY TROOPS IN AREA (CAUTION) X - ENEMY TROOPS IN AREA (ARMED ESCORT REQUIRED)	
7 METHOD OF MARKING PICKUP SITE			A - PANELS B - PYROTECHNIC SIGNAL C - SMOKE SIGNAL D - NONE E - OTHER	
8 PATIENT NATIONALITY AND STATUS			A - US MILITARY B - US CIVILIAN C - NON US MILITARY D - NON US CIVILIAN E - EPW	
9 NBC CONTAMINATION*			N - NUCLEAR B - BIOLOGICAL C - CHEMICAL	
NEAREST AXP		DESTINATION MTF	DEST FREQ/CALL SIGN	ETE
NOTES: (EXPLAIN DELAYS) (LIST NSB'S OR AIR CORRIDORS) (LIST EXCHANGE REQUIREMENTS) *WARTIME				

Figure B-B-2. Medical Evacuation/After-Action Record

MEDICAL EVACUATION/AFTER-ACTION RECORD				
DTG REQUEST RECEIVED BY EVACUATION UNIT		DTG REQUEST RECEIVED BY EVACUATION CREW		EVAC VEHICLE/AIRCRAFT DESIGNATION (BUMPER NUMBER/AIRCRAFT NUMBER)
DTG ARRIVED AT PICKUP SITE		DTG DEPARTED PICKUP SITE		EVACUATION ORGANIZATION
DTG ARRIVE AT MTF 1		DESIGNATION OF MTF 1		LOCATION OF MTF 1
DTG ARRIVE AT MTF 2		DESIGNATION OF MTF 2		LOCATION OF MTF 2
DTG ARRIVE AT MTF 3		DESIGNATION OF MTF 3		LOCATION OF MTF 3
DTG ARRIVE AT MTF 4		DESIGNATION OF MTF 4		LOCATION OF MTF 4
PATIENT DATA				
NAME	RANK	SER/ID NUMBER	UNIT	MTF EVACUATED TO
MISSION NARRATIVE: CHRONOLOGICALLY COVER AS MUCH INFORMATION AS IS AVAILABLE.				
EVAC CREW, INDIVIDUAL IN CHARGE:			SIGNATURE OF INDIVIDUAL IN CHARGE	
PILOT/DRIVER:				
MEDIC:				
CREW CHIEF:				
CONTINUATION OF INFORMATION:				

Figure B-B-2. Medical Evacuation/After-Action Record (cont'd)

ANNEX C TO APPENDIX B

NAVY AND MARINE MEDICAL EVACUATION

1. Navy

Currently, the Navy has no dedicated AE resources at E3 MTFs to go forward and retrieve casualties. Evacuation continues to be provided by lifts of opportunity from Navy as well as other joint task force (JTF) resources as identified during the planning process.

- **CBTZ Fleet Hospitals (FHs).** Close coordination between Air Force and Navy components in the planning phase is essential for successful AE. Geographic combatant commanders will ensure collocation of MASF or ASTS and FH elements to facilitate patient evacuation. Air Force is the primary AE servicing agency.
- **Hospital Ships.** No Navy or Marine Corps dedicated evacuation support currently

exists for T-AHs. Current Joint Staff initiatives lead to the provision of an Army air ambulance company to support the evacuation requirements for T-AHs.

- The Navy currently has no dedicated AE resources at E4 MTFs. Therefore, Navy doctrine relies on the collocation of a staging facility with FH elements to facilitate patient evacuation. Although movement assets are primarily provided by the Air Force, Appendix E, “Service Component Transportation Assets,” depicts fixed-wing Navy assets which could be employed on a case-by-case basis.

2. Marine Corps

The Marine Corps depends on Navy and other JTF evacuation assets for support. The Marine Corps has no E3 assets.

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APPENDIX C

REFERENCES

The development of Joint Pub 4-02.2 is based upon the following primary references.

1. Title 10, United States Code — Armed Forces.
2. Joint Pub 3-0, “Doctrine for Joint Operations.”
3. Joint Pub 3-05.3, “Joint Special Operations Operational Procedures.”
4. Joint Pub 3-07, “Joint Doctrine for Military Operations Other Than War.”
5. Joint Pub 3-17, “Joint Tactics, Techniques, and Procedures for Theater Airlift Operations.”
6. Joint Pub 4-0, “Doctrine for Logistic Support of Joint Operations.”
7. Joint Pub 4-01, “Joint Doctrine for the Defense Transportation System.”
8. Joint Pub 4-01.1, “Joint Tactics, Techniques, and Procedures for Airlift Support to Joint Operations.”
9. Joint Pub 4-02, “Doctrine for Health Service Support in Joint Operations.”
10. Joint Pub 4-02.1, “Joint Tactics, Techniques, and Procedures for Health Service Logistics Support in Joint Operations.”
11. CJCS Manual 6120.05, “Tactical Command and Control Procedures for Joint Operations — Joint Interface Operational Procedures.”
12. AFM 8-10, “Health Service Support in a Theater of Operations.”
13. FM 8-10-6, “Medical Evacuation in a Theater of Operations.”
14. FM 8-55, “Planning for Health Service Support.”
15. Joint/Air Force Handbook 41-301-01, “Physician’s Guide for AE.”

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APPENDIX D

ADMINISTRATIVE INSTRUCTIONS

1. User Comments

Users in the field are highly encouraged to submit comments on this publication to the Joint Warfighting Center, Attn: Doctrine Division, Fenwick Road, Bldg 96, Fort Monroe, VA 23651-5000. These comments should address content (accuracy, usefulness, consistency, and organization), writing, and appearance.

2. Authorship

The lead agent for this publication is the United States Transportation Command. The Joint Staff doctrine sponsor for this publication is the Director of Logistics (J-4).

3. Change Recommendations

a. Recommendations for urgent changes to this publication should be submitted:

TO: USTRANSCOM//TCJ5-SR/TCSG//
INFO: JOINT STAFF WASHINGTON DC//J7-JDD//

Routine changes should be submitted to the Director for Operational Plans and Interoperability (J-7), JDD, 7000 Joint Staff Pentagon, Washington, D.C. 20318-7000.

b. When a Joint Staff directorate submits a proposal to the Chairman of the Joint Chiefs of Staff that would change source document information reflected in this publication, that directorate will include a proposed change to this publication as an enclosure to its proposal. The Military Services and other organizations are requested to notify the Director, J-7, Joint Staff, when changes to source documents reflected in this publication are initiated.

c. Record of Changes:

CHANGE NUMBER	COPY NUMBER	DATE OF CHANGE	DATE ENTERED	POSTED BY	REMARKS
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

GLOSSARY

PART I—ABBREVIATIONS AND ACRONYMS

ACR	Armored Cavalry Regiment
ADVON	advanced echelon
AE	aeromedical evacuation
AECC	Aeromedical Evacuation Coordination Center
AECM	Aeromedical Evacuation Crew Member
AELT	Aeromedical Evacuation Liaison Team
AEOS	Aeromedical Evacuation Operations Squadron
AEOT	Aeromedical Evacuation Operations Team
AFB	Air Force Base
AFSOF	Air Force Special Operations Forces
AGE	aerospace ground equipment
ALCC	airlift coordination cell
AMBUS	ambulance bus
AMC	Air Mobility Command
AME	air mobility element
AO	area of operations
ARSOF	Army Special Operations Forces
ASMRO	Armed Services Medical Regulating Office
ASTS	Aeromedical Staging Squadron
C2	command and control
C4	command, control, communications, and computers
CBTZ	combat zone
CINC	Commander in Chief; commander of a combatant command
CJCS	Chairman of the Joint Chiefs of Staff
COMMZ	communications zone
CONUS	continental United States
CRAF	Civil Reserve Air Fleet
DMRIS	Defense Medical Regulating Information System
DMSB	Defense Medical Standardization Board
DOD	Department of Defense
E1	Echelon 1
E2	Echelon 2
E3	Echelon 3
E4	Echelon 4
E5	Echelon 5
EPW	enemy prisoner of war
FH	fleet hospital
FLOT	forward line of own troops
GPMRC	Global Patient Movement Requirements Center

Glossary

HHD	Headquarters and Headquarters Detachment
HSS	health service support
IAW	in accordance with
ITV	in-transit visibility
JFACC	joint force air component commander
JFC	joint force commander
JMC	joint movement center
JMRO	Joint Medical Regulating Office
JPMRC	Joint Patient Movement Requirements Center
JPMT	Joint Patient Movement Team
JTF	joint task force
MAJCOM	Major Command
MASF	Mobile Aeromedical Staging Facility
MCC	Mobility Control Center
MCD	Medical Crew Director
MDS	mission design series
MO	medical officer
MOOTW	military operations other than war
MTF	Medical Treatment Facility
OPCON	operational control
OPLAN	operation plan
PECK	patient evacuation contingency kit
PMI	patient movement items
PMR	patient movement request
RP	retained personnel
RTD	return to duty
SIMLM	single integrated medical logistics management
SOF	special operations forces
SOFME	special operations forces medical elements
SOI	signal operating instructions
SOP	standing operating procedures
T-AH	hospital ships
TACC	Tanker Airlift Control Center
TAES	Theater Aeromedical Evacuation System
TO	theater of operations
TPMRC	Theater Patient Movement Requirements Center
TRAC2ES	TRANSCOM's Regulating and Command and Control Evacuation System

USCINTRANS	Commander in Chief, US Transportation Command
USTRANSCOM	United States Transportation Command
UTC	unit type code

PART II—TERMS AND DEFINITIONS

aeromedical evacuation. The movement of patients under medical supervision to and between medical treatment facilities by air transportation. (Joint Pub 1-02)

aeromedical evacuation control officer. An officer of the air transport force or air command controlling the flow of patients by air. (Joint Pub 1-02)

aeromedical evacuation coordination center. A coordination center, within the joint air operations center's airlift coordination cell, which monitors all activities related to aeromedical evacuation (AE) operations execution. It manages the medical aspects of the AE mission and serves as the net control station for AE communications. It coordinates medical requirements with airlift capability, assigns medical missions to the appropriate AE elements, and monitors patient movement activities. Also called AECC. (This term and its definition are provided for information and are proposed for inclusion in the next edition of Joint Pub 1-02 by Joint Pub 4-01.1.)

aeromedical evacuation system. A system which provides: a. control of patient movement by air transport; b. specialized medical aircrew, medical crew augmentees, and specialty medical attendants and equipment for inflight medical care; c. facilities on or in the vicinity of air strips and air bases for the limited medical care of intransit patients entering, en route via, or leaving the system; d. communication with originating, destination, and en route medical facilities concerning patient transportation. (This term and its definition modifies the existing term and its definition and is approved for inclusion in the next edition of Joint Pub 1-02.)

aeromedical evacuation unit. An operational medical organization concerned primarily with the management and control of patients being transported via an aeromedical evacuation system or system echelon. (Joint Pub 1-02)

ambulance exchange point. A location where a patient is transferred from one ambulance to another en route to a medical treatment facility. This may be an established point in an ambulance shuttle or it may be designated independently. Also called AXP. (Approved for inclusion in the next edition of Joint Pub 1-02.)

beach organization. In an amphibious operation, the planned arrangement of personnel and facilities to effect movement, supply, and evacuation across beaches and in the beach area for support of a landing force. (Joint Pub 1-02)

beach support area. In amphibious operations, the area to the rear of a landing force or elements thereof, established and operated by shore party units, which contains the facilities for the unloading of troops and materiel and the support of the forces ashore; it includes facilities for the evacuation of wounded, enemy prisoners of war, and captured materiel. (Joint Pub 1-02)

casualty. Any person who is lost to the organization by having been declared dead, duty status - whereabouts unknown, missing, ill, or injured. See also casualty category; casualty status; casualty type. (Joint Pub 1-02)

casualty category. A term used to specifically classify a casualty for reporting purposes based upon the casualty type and the casualty status. Casualty categories include

killed in action, died of wounds received in action, and wounded in action. See also casualty; casualty status; casualty type; duty status - whereabouts unknown; missing. (Joint Pub 1-02)

casualty receiving and treatment ship. In amphibious operations, a ship designated to receive, provide treatment for, and transfer casualties. (Joint Pub 1-02)

casualty status. A term used to classify a casualty for reporting purposes. There are seven casualty statuses: (1) deceased, (2) duty status - whereabouts unknown, (3) missing, (4) very seriously ill or injured, (5) seriously ill or injured, (6) incapacitating illness or injury, and (7) not seriously injured. (Joint Pub 1-02)

casualty type. A term used to identify a casualty for reporting purposes as either a hostile casualty or a nonhostile casualty. (Joint Pub 1-02)

civil reserve air fleet. A program in which the Department of Defense uses aircraft owned by a US entity or citizen. The aircraft are allocated by the Department of Transportation to augment the military airlift capability of the Department of Defense (DOD). These aircraft are allocated, in accordance with DOD requirements, to segments, according to their capabilities, such as Long-Range International (cargo and passenger), Short-Range International, Domestic, Alaskan, Aeromedical, and other segments as may be mutually agreed upon by the Department of Defense and the Department of Transportation. The Civil Reserve Air Fleet (CRAF) can be incrementally activated by the Department of Defense in three stages in response to defense-oriented situations, up to and including a declared national emergency or war, to satisfy DOD airlift requirements. When activated, CRAF aircraft are under the mission control of

the Department of Defense while remaining a civil resource under the operational control of the responsible US entity or citizen. Also called CRAF. a. CRAF Stage I. This stage involves DOD use of civil air resources that air carriers will furnish to the Department of Defense to support substantially expanded peacetime military airlift requirements. The Commander, Air Mobility Command, may authorize activation of this stage and assume mission control of those airlift assets committed to CRAF Stage I. b. CRAF Stage II. This stage involves DOD use of civil air resources that the air carriers will furnish to Department of Defense in a time of defense airlift emergency. The Secretary of Defense, or designee, may authorize activation of this stage permitting the Commander, Air Mobility Command, to assume mission control of those airlift assets committed to CRAF Stage II. c. CRAF Stage III. This stage involves DOD use of civil air resources owned by a US entity or citizen that the air carriers will furnish to the Department of Defense in a time of declared national defense-oriented emergency or war, or when otherwise necessary for the national defense. The aircraft in this stage are allocated by the Secretary of Transportation to the Secretary of Defense. The Secretary of Defense may authorize activation of this stage permitting the Commander, Air Mobility Command, to assume mission control of those airlift assets committed to CRAF Stage III. (Joint Pub 1-02)

combat service support. The essential capabilities, functions, activities, and tasks necessary to sustain all elements of operating forces in theater at all levels of war. Within the national and theater logistic systems, it includes but is not limited to that support rendered by service forces in ensuring the aspects of supply, maintenance, transportation, health services, and other services required by

aviation and ground combat troops to permit those units to accomplish their missions in combat. Combat service support encompasses those activities at all levels of war that produce sustainment to all operating forces on the battlefield. (Joint Pub 1-02)

communications zone. Rear part of theater of operations (behind but contiguous to the combat zone) which contains the lines of communications, establishments for supply and evacuation, and other agencies required for the immediate support and maintenance of the field forces. (Joint Pub 1-02)

direct action. Short-duration strikes and other small-scale offensive actions by special operations forces to seize, destroy, capture, recover, or inflict damage on designated personnel or materiel. In the conduct of these operations, special operations forces may employ raid, ambush, or direct assault tactics; emplace mines and other munitions; conduct standoff attacks by fire from air, ground, or maritime platforms; provide terminal guidance for precision-guided munitions; and conduct independent sabotage. Also called DA. (Joint Pub 1-02)

evacuation. 1. The process of moving any person who is wounded, injured, or ill to and/or between medical treatment facilities. 2. The clearance of personnel, animals, or materiel from a given locality. 3. The controlled process of collecting, classifying, and shipping unserviceable or abandoned materiel, United States and foreign, to appropriate reclamation, maintenance, technical intelligence, or disposal facilities. (Joint Pub 1-02)

evacuation control ship. In an amphibious operation, a ship designated as a control point for landing craft, amphibious vehicles, and helicopters evacuating casualties from the beaches. Medical personnel embarked

in the evacuation control ship effect distribution of casualties throughout the attack force in accordance with ship's casualty capacities and specialized medical facilities available, and also perform emergency surgery. (Joint Pub 1-02)

evacuation policy. 1. Command decision indicating the length in days of the maximum period of noneffectiveness that patients may be held within the command for treatment. Patients who, in the opinion of responsible medical officers, cannot be returned to duty status within the period prescribed are evacuated by the first available means, provided the travel involved will not aggravate their disabilities. 2. A command decision concerning the movement of civilians from the proximity of military operations for security and safety reasons and involving the needs to arrange for movement, reception, care, and control of such individuals. 3. Command policy concerning the evacuation of unserviceable or abandoned materiel and including designation of channels and destinations for evacuated materiel, the establishment of controls and procedures, and the dissemination of condition standards and disposition instructions. (Joint Pub 1-02)

forward aeromedical evacuation. That phase of evacuation which provides airlift for patients between points within the battlefield, from the battlefield to the initial point of treatment, and to subsequent points of treatment within the combat zone. (Joint Pub 1-02)

Global Patient Movement Requirements

Center. A joint activity reporting directly to the Commander in Chief, US Transportation Command, the Department of Defense single manager for the regulation of movement of uniformed services patients. The Global Patient Movement Requirements Center authorizes

transfers to medical treatment facilities of the Military Departments or the Department of Veterans Affairs and coordinates intertheater and inside continental United States patient movement requirements with the appropriate transportation component commands of US Transportation Command. (Joint Pub 1-02)

health service support. All services performed, provided, or arranged by the Services to promote, improve, conserve, or restore 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 curative health measures; evacuation of the wounded, injured, or sick; 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)

hospital. A medical treatment facility capable of providing inpatient care. It is appropriately staffed and equipped to provide diagnostic and therapeutic services, as well as the necessary supporting services required to perform its assigned mission and functions. A hospital may, in addition, discharge the functions of a clinic. (Joint Pub 1-02)

intertheater. Between theaters or between the continental United States and theaters. (Joint Pub 1-02)

intertheater evacuation. Evacuation of patients between the originating theater and points outside the theater, to include the continental United States and other theaters. En route care is provided by trained medical personnel. (Joint Pub 1-02)

intransit aeromedical evacuation facility.

A medical facility on or in the vicinity of an air base, that provides limited medical care for intransit patients awaiting air transportation. This type of medical facility is provided to obtain effective utilization of transport airlift within operating schedules. It includes “remain overnight” facilities, intransit facilities at aerial ports of embarkation and debarkation, and casualty staging facilities in an overseas combat area. (Joint Pub 1-02)

in-transit visibility. The capability provided to a theater combatant commander to have visibility of units, personnel, and cargo while in transit through the Defense Transportation System. (Joint Pub 1-02)

intratheater. Within a theater. (Joint Pub 1-02)

intratheater evacuation. Evacuation of patients between points within the theater. En route care is provided by trained medical personnel. (Joint Pub 1-02)

joint force. A general term applied to a force composed of significant elements, assigned or attached, of two or more Military Departments, operating under a single joint force commander. (Joint Pub 1-02)

joint force commander. A general term applied to a combatant commander, subunified commander, or joint task force commander authorized to exercise combatant command (command authority) or operational control over a joint force. Also called JFC. (Joint Pub 1-02)

joint force surgeon. A general term applied to an individual appointed by the joint force commander to serve as the theater or joint task force special staff officer responsible for establishing,

monitoring, or evaluating joint force health service support. (Joint Pub 1-02)

joint movement center. The center established to coordinate the employment of all means of transportation (including that provided by allies or host nations) to support the concept of operations. This coordination is accomplished through establishment of transportation policies within the assigned area of responsibility, consistent with relative urgency of need, port and terminal capabilities, transportation asset availability, and priorities set by a joint force commander. (Joint Pub 1-02)

logistic support (medical). Medical care, treatment, hospitalization, evacuation, furnishing of medical services, supplies, materiel, and adjuncts thereto. (Joint Pub 1-02)

mass casualty. Any large number of casualties produced in a relatively short period of time, usually as the result of a single incident such as a military aircraft accident, hurricane, flood, earthquake, or armed attack that exceeds local logistical support capabilities. (Joint Pub 1-02)

medical regulating. The actions and coordination necessary to arrange for the movement of patients through the echelons of care. This process matches patients with a medical treatment facility which has the necessary health service support capabilities, and it also ensures that bed space is available. (Joint Pub 1-02)

medical treatment facility. A facility established for the purpose of furnishing medical and/or dental care to eligible individuals. (Joint Pub 1-02)

operation order. A directive issued by a commander to subordinate commanders for the purpose of effecting the coordinated

execution of an operation. Also called OPORD. (Joint Pub 1-02)

opportune lift. That portion of lift capability available for use after planned requirements have been met. (Joint Pub 1-02)

port of debarkation. The geographic point at which cargo or personnel are discharged. May be a seaport or aerial port of debarkation. For unit requirements, it may or may not coincide with the destination. Also called POD. (Joint Pub 1-02)

port of embarkation. The geographic point in a routing scheme from which cargo or personnel depart. May be a seaport or aerial port from which personnel and equipment flow to port of debarkation. For unit and nonunit requirements, it may or may not coincide with the origin. Also called POE. (Joint Pub 1-02)

retrograde personnel. Personnel evacuated from a theater of operations who may include medical patients, noncombatants, and civilians. (Joint Pub 1-02)

stabilized patient. A patient whose airway is secured, hemorrhage is controlled, shock treated, and fractures are immobilized. (Approved for inclusion in the next edition of Joint Pub 1-02.)

stable patient. A patient for whom no inflight medical intervention is expected but the potential for medical intervention exists. (Approved for inclusion in the next edition of Joint Pub 1-02.)

strategic air transport operations. The carriage of passengers and cargo between theaters by means of: a. scheduled service; b. special flight; c. air logistic support; d. aeromedical evacuation. (Joint Pub 1-02)

tactical aeromedical evacuation. That phase of evacuation which provides airlift for patients from the combat zone to points outside the combat zone, and between points within the communications zone. (Joint Pub 1-02)

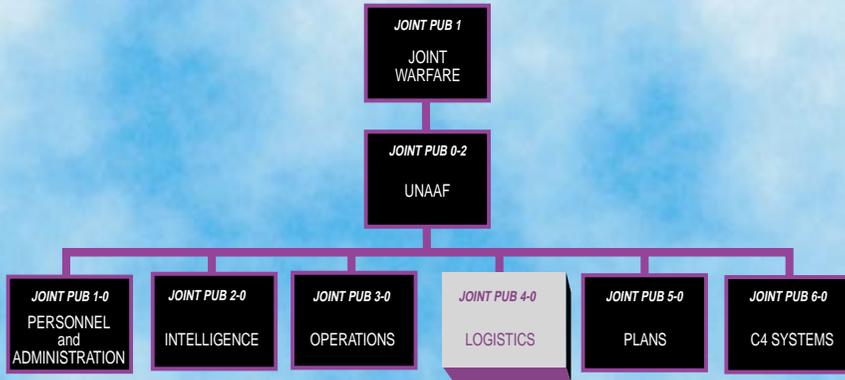
tactical air transport operations. The carriage of passengers and cargo within a theater by means of: a. Airborne operations: (1) Parachute assault, (2) Helicopter borne assault, (3) Air landing; b. Air logistic support; c. Special missions;

d. Aeromedical evacuation missions. (Joint Pub 1-02)

triage. The evaluation and classification of casualties for purposes of treatment and evacuation. It consists of the immediate sorting of patients according to type and seriousness of injury, and likelihood of survival, and the establishment of priority for treatment and evacuation to assure medical care of the greatest benefit to the largest number. (Joint Pub 1-02)

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JOINT DOCTRINE PUBLICATIONS HIERARCHY



All joint doctrine and tactics, techniques, and procedures are organized into a comprehensive hierarchy as shown in the chart above. **Joint Pub 4-02.2** is in the **Logistics** series of joint doctrine publications. The diagram below illustrates an overview of the development process:

